

Health and retirement benefits: data from two BLS surveys

Both the household-based Current Population Survey and the establishment-based Employee Benefits Survey have strengths and limitations with respect to collecting information on health and retirement benefits: demographic information is best obtained from household surveys; details of benefit plans are best collected from establishments

Diane E. Herz,
Joseph R.
Meisenheimer II,
and
Harriet G. Weinstein

Employee benefits are an important aspect of job quality. In assessing the quality of different types of jobs, workers, employers, and researchers often consider benefits along with other characteristics of jobs, such as pay, job security, job safety, and the type of work involved.¹ Many employers are concerned about the cost of benefits, which compose 28 percent of compensation costs for employers in the private sector and State and local governments.² Public policymakers also frequently focus on employee benefits. For example, many observers have expressed concern in recent years about the number of Americans who lack health insurance. In response, policymakers have debated whether universal health coverage should be a national goal. Central to that debate are the role employer-provided health insurance plays in the current health care system and what role it might play in any proposed new system. Employer-provided retirement plans also have been the subject of public policy discussions. As the baby-boom generation—the huge cohort of Americans born between 1946 and 1964—approaches retirement age, concern has arisen about whether Social Security and private pension plans can withstand the strain of providing retirement income to so many people.³

Clearly, having accurate information on employee benefits is important for workers, employers, and public policymakers.⁴ Two BLS surveys provide estimates of participation in employee benefits plans: the Current Population Survey

(CPS) and the Employee Benefits Survey (EBS). The CPS is a monthly survey of 50,000 households from which information is obtained on employment, unemployment, demographics, earnings, and more. The CPS is jointly conducted by the Bureau of Labor Statistics and the Bureau of the Census. The EBS obtains data from establishments on the number of participants in a variety of employee benefits plans and the detailed provisions of those plans. The EBS is being incorporated into the National Compensation Survey, which, when fully integrated, will provide measures of occupational earnings, trends in compensation costs, and participation in, and details of, benefit plans.⁵

This article compares information that the CPS and EBS provide on two of the most important categories of benefits: health and retirement plans. According to the CPS, 66 percent of full-time workers in the private sector participated in a health plan provided by their employer in 1995. The EBS indicates that 71 percent of full-time private-sector workers participated in an employer-provided health plan. The gap between the two surveys is greater in regard to participation in retirement plans: the CPS indicates that 49 percent of full-time workers in the private sector participated in an employer-provided retirement plan in 1995; the comparable figure from the EBS is 60 percent.

The material that follows is intended as a guide for researchers, public policymakers, and others to understand the strengths and limitations of CPS

Diane E. Herz and Joseph R. Meisenheimer II are economists in the Office of Employment and Unemployment Statistics, Bureau of Labor Statistics. Harriet G. Weinstein is an economist in the Office of Compensation and Working Conditions, Bureau of Labor Statistics.

and EBS data on employee benefits. Among the topics examined are differences in estimates derived from the two surveys and possible reasons for inconsistencies between them. The types of information that each survey provides also are described.

Data on prevalence of benefits

Although the CPS is a monthly survey, it does not include questions each month on employee benefits. Rather, supplementary questions on benefits have appeared periodically in the CPS since the early 1970s. CPS supplementary surveys on employer-provided benefits were conducted in April 1972, in May of 1979, 1983, and 1988, and in April 1993.⁶ There are no current plans to repeat those surveys, but questions on health and retirement benefits were included in CPS supplements on workers in contingent and alternative employment arrangements conducted in February of 1995, 1997, and 1999. The supplementary questions were asked of all employed persons covered in the CPS. The employee benefits data from the February 1999 CPS are not yet available, so the sections that follow examine data from the February 1995 and 1997 surveys. The annual demographic supplement to the CPS, conducted each March, also contains health insurance questions, but the focus of those questions is coverage from *any* source, rather than employer-provided coverage. Hence, the March CPS data are not analyzed in this article.⁷

The EBS is actually three different surveys. In odd-numbered years, “medium and large” private-sector establishments—those with 100 or more workers—have been surveyed. In even-numbered years, “small” private-sector establishments—those with fewer than 100 employees—have been surveyed, as have State and local governments. The analysis that follows combines data from the two private-sector surveys—1994 for small establishments and 1995 for medium and large establishments—to produce estimates for the total private sector. Data from the 1994 survey of State and local governments are combined with data pertaining to the total private sector to provide measures of the entire economy (excluding Federal employees).

The EBS excludes workers in the Federal Government, agricultural workers, self-employed persons, family members who work without pay in family-owned businesses, workers in private households, and some workers in religious and not-for-profit organizations. Such workers are included in the CPS. In order to compare CPS and EBS data on participation in employer-provided health and retirement plans, it is necessary to exclude from the CPS tabulations as many workers as possible who are outside the scope of the EBS. For this reason, the CPS estimates examined in this article generally will include wage and salary workers in the private, nonagricultural sector and in State and local governments. Excluded are Federal employees, workers in agriculture, all self-employed persons (regardless of whether their businesses are incorporated), independ-

ent contractors, and unpaid family workers.

The analysis focuses primarily on full-time workers, although benefit coverage for part-time workers is discussed briefly. The two surveys define “full time” and “part time” differently. In the EBS, respondent establishments use their own criteria to determine who is considered to be a full- or part-time employee. In the CPS, anyone who usually works at least 35 hours per week is considered a full-time worker, and those who work fewer than 35 hours are part time.

Why two surveys on benefits?

Many readers may ask why it is necessary to have two surveys that collect information on participation in employee benefit plans. The reason is that household and establishment surveys often complement each other, because each has different strengths and limitations. Household surveys are better equipped to obtain information on workers’ demographic characteristics, such as their age, sex, race, and marital status. This information typically is not collected in establishment surveys, because some employers may not keep such records of their employees or, if employers have such information, it may not be organized in a way that is easy to report for a survey.⁸

Establishment survey respondents typically provide more reliable information than household respondents do on some topics, such as the number of hours for which a worker is paid or the industry of the establishment. Information on the industry in which workers are employed is collected each month in the CPS. For broad industry categories, the CPS employment estimates generally are consistent with those obtained from establishment sources. For more detailed industry groups, however, CPS respondents may find it difficult to provide precise information on their employers’ activities, products, or services.⁹

Establishments also furnish more reliable information than households do on the details of employer-provided benefit plans and the employers’ costs for providing those benefits. Individuals may not have sufficient knowledge of their health or retirement plans to describe the types of plans or their provisions accurately. Response errors may be even more likely when proxy responses are allowed, as they are in the CPS. In the CPS, one person in a sampled household typically answers questions about himself or herself (self-responses) and everyone else in the household (proxy responses). Self-responses are thought to be more reliable than proxy responses, because people naturally can provide more precise information about themselves than about other people in the household, even if those others are close family members.¹⁰ A variety of presurvey testing procedures can help to identify and prevent problems that CPS respondents, whether providing self- or proxy responses, might have in answering questions. Even with such testing, however, the CPS often cannot provide information on benefit plans that is as precise as EBS data. The EBS is more likely to obtain accurate information about benefit plans be-

Exhibit 1. Comparing the CPS and EBS: what information does each survey provide?

Type of information	EBS	CPS	Which survey provides more reliable data?
General information			
Demographic information	No	Yes	Only CPS provides
Industry information	Yes	Yes	Both have strengths ¹
Occupational information	Yes	Yes	Both have strengths ¹
Union membership	Yes	Yes	Each defines differently
Establishment size	Yes	Yes ²	EBS
Full- and part-time status	Yes	Yes	Each defines differently
Health benefits			
Participation in employer-provided plan	Yes	Yes	EBS
Employee eligibility, regardless of participation	No	Yes ³	Only CPS provides
Health coverage from sources other than one's own employer	No	Yes ⁴	Only CPS provides
Employee premiums, deductibles, copayments, and coinsurance	Yes	No	Only EBS provides
Type of health plan (fee for service, PPO, HMO)	Yes	No	Only EBS provides
Specific types of health services covered by plan	Yes	No	Only EBS provides
Retirement benefits			
Participation in employer-provided plan	Yes	Yes	EBS
Employee eligibility, regardless of participation	No	Yes	Only CPS provides
Type of retirement plan (defined benefit or defined contribution)	Yes	Yes ⁵	EBS
Defined-benefit plan formula	Yes	No	Only EBS provides
Specific type of defined-contribution plan	Yes	Yes ⁶	EBS
Age and service requirements for normal- and early-retirement eligibility	Yes	No	Only EBS provides
Eligibility and benefit levels for disability retirement	Yes	No	Only EBS provides
Employer contributions to defined-contribution plans	Yes	Yes ⁵	EBS
Coordination of defined-benefit plan payments with Social Security	Yes	No	Only EBS provides
Vesting schedules	Yes	No	Only EBS provides
Survivor benefits	Yes	No	Only EBS provides

¹ The EBS classifies industries and occupations somewhat more accurately, but because the CPS has a much larger sample size, it is able to provide more industry and occupational detail.

² The February 1995 and 1997 CPS supplements did not include any questions on establishment size or firm size. The CPS supplement conducted in May 1972 included questions on establishment size—that is, the number of people who work at the same location as respondents to the CPS sample work. The CPS supplements conducted in May 1979, 1983, and 1988 and April 1993 also included questions on establishment size. In addition, those supplements included questions on whether the employer operated at more than one location and, if so, how many people worked at all locations. Survey researchers have long considered responses to these questions to have poor accuracy, because many respondents to the CPS and other household surveys are unlikely to know how many people work for the employers of household members.

³ The May 1988, April 1993, and February 1995 and 1997 CPS supplements included questions on eligibility to participate in employer-provided health plans, but the May 1979 and 1983 CPS supplements did not.

⁴ The May 1988, April 1993, and February 1995 and 1997 CPS supplements included questions on health coverage from sources other than one's own employer, but the May 1979 and 1983 CPS supplements did not.

⁵ The May 1988 and April 1993 CPS supplements included questions on the type of retirement plan and the employer's contribution to the plan, but the February 1995 and 1997 CPS supplements did not.

⁶ The April 1993 CPS supplement included questions on specific types of defined-contribution plans, but the February 1995 and 1997 CPS supplements did not.

cause the data are obtained from plan brochures that establishments provide to BLS data collectors.¹¹ (See exhibit 1 for a summary of the data provided by the CPS and EBS.) Estimates of health benefits coverage from both surveys are discussed next, followed by an examination of retirement coverage.

Health benefits

CPS data on health insurance. The CPS employee benefits surveys, conducted in April 1972, May of 1979, 1983, and 1988, and April 1993, included questions on workers' health insurance coverage. No analysis of the health insurance data from the 1972 survey was published, and an electronic data file is no longer available for research, so trends that can be reviewed are those in health benefit coverage from 1979 forward.¹² The May 1979 and 1983 CPS supplements simply asked respondents whether they were included in a health insurance plan on their present job. From that information, researchers calculated plan participation rates (also called coverage rates). By April 1993, the supplement had expanded to include questions on eligibility for insurance, insurance coverage from sources other than one's own employer, and reasons eligible employees did not participate in a health insurance plan offered by their employer.¹³

Information on health insurance coverage also was collected in the February 1995, 1997, and 1999 CPS supplements on workers in contingent and alternative work arrangements. Although employee benefits were not the primary subject of these supplements, questions on health and retirement benefits were included to provide information about the quality of jobs held by workers in all types of employment arrangements, including those in traditional arrangements, contingent or "temporary" arrangements, and alternative arrangements—such as independent contractors, employees of temporary help firms, and on-call workers. As mentioned previously, the employee benefits data from the February 1999 CPS are not yet available, so only data from the February 1995 and 1997 surveys will be examined.

Respondents to the foregoing February CPS supplementary questions were asked if employed members of their household had health insurance *from any source*. Respondents who replied affirmatively were asked if the employees received the health insurance from their own employer (including a temporary-help agency or a contract company). If they did, they were asked if their employer paid for all, part, or none of the coverage.¹⁴ Those who reported that they did not receive coverage from their employer were asked to name the source of their health insurance. This question gave respondents a second chance to report coverage from their employer, as well as to report coverage from a spouse's or other family member's insurance, from other current or previous jobs, from Medicare or Medicaid, from insurance the worker purchased privately, or from some other source.

For workers who had no health insurance or who participated in a plan from a source other than their own employer, survey respondents were asked if the employer offered a plan and whether the worker was eligible to participate in it. If the worker had been eligible, the respondent was asked why the worker did not participate in the employer-sponsored plan.

Despite the different wording of questions between the CPS employee benefit supplements and the CPS contingent-worker supplements, the surveys found similar results. Two-thirds of wage and salary workers (public and private sector combined) had health insurance from their own employer in May 1979, 1983, and 1988. The proportion declined to 61 percent by April 1993. Rates of coverage computed using data from the February 1995 and 1997 CPS supplements were about the same—60 percent in both periods.

Full-time workers are much more likely than part-time workers to participate in an employer-provided health insurance plan. In February 1995 and 1997, about 70 percent of full-time wage and salary workers were enrolled in a plan offered by their employer, compared with only 16 percent of part-time workers. The proportion of full-time workers participating in employer-provided health plans fell between 1979 and 1993 and was essentially unchanged after that. Rates of coverage for part-time workers changed little throughout the 1979–97 period, as the following tabulation of the percent of wage and salary workers participating in an employer-sponsored health plan shows:

	Total	Full time	Part time
1979	66	75	16
1983	66	75	17
1988	65	74	15
1993	61	71	16
1995	60	70	16
1997	60	70	16

Because the CPS collects information from employees rather than employers, it is possible to obtain information on health insurance that employees receive from sources other than their own employer, such as others' health plans. As shown in table 1, in February 1997, 79 percent of full-time, private-sector, nonagricultural wage and salary workers were eligible to receive health insurance from their employers. Another 15 percent were not eligible for coverage, and the remaining 7 percent did not provide information on eligibility.¹⁵ Eligibility rates were much lower for part-time workers: twenty-eight percent were eligible to participate in their employer's health plan in February 1997.

Of the 58.7 million full-time, private-sector, nonagricultural wage and salary workers who were eligible to receive health insurance coverage from their employer in February 1997, 84 percent elected to do so. Another 8 percent of eligible workers chose to receive coverage through a plan of a spouse or another family member. Less than 2 percent received coverage

from another source, such as an individually purchased plan. About 6 percent were not covered by any health insurance, despite being eligible to receive coverage from their employer. The primary reason reported for not being in the employer's plan was that it was too expensive.

Eleven million full-time, private-sector, nonagricultural wage and salary workers were not eligible to participate in their employer's health insurance plan. About 39 percent of these workers participated in a health plan from some other source. The remaining 61 percent, 6.7 million workers, had no health insurance coverage at all. (See table 1.)

The February 1997 CPS supplement found that, among full-time, private-sector, nonagricultural wage and salary workers, employed men and women were about equally likely to be eligible for employer-provided health insurance. As shown in table 1, just under 8 in 10 in each group had the option of such coverage at the time of the survey. Among those who were eligible, men were more likely than women to accept coverage from their employers—87 percent compared with 80 percent. Women were more likely than men to be covered by their spouse's or another family member's insurance. Among workers who were not eligible for health insurance from their employers, men were more likely than women to have no coverage at all. (See table 1.)

Health insurance eligibility and coverage increase with age.

In February 1997, about 45 percent of full-time, private-sector, nonagricultural wage and salary workers aged 16 to 19 were eligible for coverage from their employers, and a quarter of teens employed full time actually participated in their employers' health plan. (Table 2 provides information on plan participation, but not on eligibility.) Eligibility increased to 65 percent for those aged 20 to 24, and half of the group participated. Eight in 10 workers aged 25 and older were eligible for, and 7 in 10 participated in, employer-provided plans. Rates were somewhat lower for persons aged 65 and older, but nearly all persons in this group receive hospital and medical insurance through medicare, regardless of whether they are employed.¹⁶

EBS estimates of employer-provided health insurance. According to the EBS, medical care benefits are provided to almost three-fourths of the full-time civilian workers in the private sector and State and local governments. Participation rates are higher among State and local government workers (87 percent) than those in the private sector (71 percent). Within the private sector, employees of medium and large establishments are more likely to participate in a health insurance plan (77 percent) than are those working in small establishments (66 percent).

CPS and EBS data on health coverage. EBS estimates of health

Table 1. CPS estimates of health coverage for full-time, private-sector, nonagricultural wage and salary workers, by source of coverage, February 1997

[Numbers in thousands]

Coverage	Total	Men	Women
Total employed	74,677	43,615	31,062
Eligible for employer-provided health plan	58,700	34,396	24,304
Receive health coverage from any source	55,373	32,424	22,949
Receive coverage from employer	49,421	29,997	19,424
Receive coverage from spouse's or other family member's plan	4,930	1,842	3,088
Receive coverage from some other source	1,022	585	437
Not covered by any health plan	3,327	1,972	1,355
Not eligible for employer-provided health plan	10,984	6,258	4,726
Receive health coverage from source other than employer	4,282	2,151	2,131
Not covered by any health plan	6,702	4,108	2,594
Eligibility for employer-provided health plan unknown	4,993	2,961	2,032
Total employed (percent distribution)	100	100	100
Eligible for employer-provided health plan	79	79	78
Not eligible for employer-provided health plan	15	14	15
Eligibility for employer-provided health plan unknown	7	7	7
Eligible for employer-provided health plan (percent distribution)	100	100	100
Receive health coverage from any source	94	94	94
Receive coverage from employer	84	87	80
Receive coverage from spouse's or other family member's plan	8	5	13
Receive coverage from some other source	2	2	2
Not covered by any health plan	6	6	6
Not eligible for employer-provided health plan (percent distribution)	100	100	100
Receive health coverage from source other than employer	39	34	45
Not covered by any health plan	61	66	55

SOURCE: Current Population Survey, February 1997.

insurance participation among full-time, private-sector, non-agricultural workers are 3 to 8 percentage points higher than estimates derived from the CPS. As shown in table 3, this is true regardless of whether workers are in a union, are employed in goods-producing or service-producing industries, or are in white-collar, blue-collar, or service occupations.¹⁷ Among State and local government employees, the pattern holds for nonunion workers, with the EBS showing 86-percent participation and the CPS 83 percent. Among government workers in unions, however, the CPS estimate of 93 percent was higher than the EBS estimate of 87 percent. One reason for the generally higher rates from the EBS may be the inclusion in the EBS participation measure of workers who have not yet satisfied their employers' length-of-service requirements needed prior to enrolling in their health insurance plan. In the CPS, such workers may not describe themselves as being covered by an employer-provided health plan.

Industry and occupation. The EBS and CPS both provide information on participation in employee benefit plans by industry

Table 2. CPS estimates of the percent of full-time, private-sector, nonagricultural wage and salary workers participating in employer-provided health plans, by age, sex, race, and Hispanic origin, February 1997

Age and sex	Total	White	Black	Hispanic origin
Both sexes				
Total, 16 years and older	66	67	63	50
16 to 19 years	26	26	19	21
20 to 24 years	50	51	46	35
25 years and older	69	70	66	54
25 to 34 years	66	67	61	52
35 to 44 years	70	71	68	53
45 to 54 years	71	72	70	56
55 to 64 years	72	72	74	63
65 years and older	55	55	—	—
Men				
Total, 16 years and older	69	70	63	51
16 to 19 years	27	28	22	23
20 to 24 years	49	50	42	31
25 years and older	72	73	66	55
25 to 34 years	68	68	62	53
35 to 44 years	74	75	68	54
45 to 54 years	75	76	71	60
55 to 64 years	74	75	73	67
65 years and older	59	57	—	—
Women				
Total, 16 years and older	63	63	63	49
16 to 19 years	23	24	16	16
20 to 24 years	51	51	51	41
25 years and older	65	65	65	52
25 to 34 years	63	64	60	51
35 to 44 years	65	65	68	53
45 to 54 years	66	65	69	50
55 to 64 years	69	69	74	57
65 years and older	50	51	—	—

NOTE: Dash indicates fewer than 75,000 workers.
SOURCE: Current Population Survey, February 1997.

Table 3. CPS and EBS estimates of the percent of full-time, nonagricultural wage and salary workers in the private sector and in State and local government receiving employer-provided health coverage, selected years

Worker category	Private sector			State and local government		
	CPS		EBS	CPS		EBS
	1995	1997	1994-95	1995	1997	1994
Total	66	66	71	87	88	87
White-collar occupations	72	72	76	—	—	87
Blue-collar occupations	65	65	73	—	—	89
Service occupations	38	40	46	—	—	84
Goods-producing industries	73	73	77	—	—	97
Service-producing industries	63	63	68	—	—	87
Union	84	84	87	93	93	87
Nonunion	64	64	68	83	83	86

NOTE: Dash indicates data are not available.

SOURCE: Current Population Survey, February 1995 and 1997; Employee Benefits Survey, 1994 and 1995.

and occupation. Because the size of the CPS sample is considerably larger than that of the EBS, researchers using the CPS can calculate estimates for more detailed industries and occupations than is possible by using the EBS.¹⁸

CPS estimates in table 4 show that participation in an employer-provided health plan was much more common among full-time State and local government employees (88 percent) than among private-sector employees (66 percent). Within the major industry categories in the private sector, workers in mining and manufacturing were the most likely to participate in an employer-provided health plan, with at least 8 in 10 employees enrolled. High coverage in communications and public utilities (86 percent) drove up the overall rate for the transportation and public utilities industry. Workers in agriculture (34 percent), construction (43 percent), and retail trade (49 percent) were the least likely to participate in an employer-provided health plan. Within retail trade, the participation rate for full-time workers in eating and drinking places, at 28 percent, was especially low. By comparison, 57 percent of full-time workers in other retail industries received health insurance from their employer.

In virtually every industry shown in the table, workers in unions had higher coverage rates than nonunion workers. As indicated in the following tabulation, EBS estimates show that union workers have higher participation rates in employer-provided health insurance plans than nonunion workers have, both in medium and large establishments and in small establishments (the union-nonunion difference in participation rates, however, is greater in small establishments):¹⁹

Table 4. cps estimates of the percent of full-time wage and salary workers participating in employer-provided health plans, by industry and union membership status, February 1997

Industry	Total employed (thousands)	Percent of employed who are union members	Percent of employed participating in employer-provided health plan		
			Total	Union member	Not a union member
Total, 16 years and older	92,707	16	70	88	66
Private sector	76,093	11	66	83	64
Agriculture	1,414	3	34	—	34
Nonagricultural industries ¹	74,680	11	66	84	64
Mining	571	5	83	—	82
Construction	4,412	17	43	59	39
Manufacturing	18,347	17	80	92	77
Durable goods	11,244	19	81	93	78
Nondurable goods	7,104	14	78	90	76
Transportation and public utilities	5,922	26	77	89	72
Transportation	3,486	26	70	84	66
Communications and other public utilities	2,436	27	86	97	82
Wholesale trade	4,140	7	72	—	71
Retail trade	11,792	7	49	78	47
Eating and drinking places	3,099	2	28	—	27
Other retail trade	8,693	9	57	80	54
Finance, insurance, and real estate	5,625	3	73	—	73
Services	23,869	6	63	76	62
Private households	344	1	10	—	10
Other services	23,525	6	64	76	63
Business, auto, and repair services	5,646	3	55	—	54
Personal services, except households	2,207	5	50	—	50
Entertainment and recreation	915	4	59	—	59
Professional services	14,728	8	70	78	69
Hospitals	3,646	11	78	82	78
Health services, except hospitals	4,092	5	59	—	59
Educational services	1,594	19	79	89	77
Social services	1,463	3	52	—	52
Other professional services	3,933	4	77	—	77
Government workers	16,613	42	87	94	82
Federal	3,366	31	84	97	78
State and local ¹	13,247	45	88	93	83

¹Estimates shown in this table for union and nonunion workers combined may differ slightly from estimates shown in other tables for full-time wage and salary workers because of differences in the way survey responses are weighted. Questions on union membership are asked of approximately one-quarter of the CPS sample each month, whereas most other questions are asked of the full sample. Estimates in the table were tabulated using quarter-

sample weights and therefore may differ slightly from estimates shown in other tables in this article that were tabulated using full-sample weights.

NOTE: Dash indicates fewer than 300,000 workers.

SOURCE: Current Population Survey, February 1997.

	Percent	
	Union	Nonunion
Medium and large establishments ...	85	74
Small establishments	94	64

Table 5 shows health plan participation rates estimated from the cps for full-time, private-sector, nonagricultural workers, by occupation. Eight in 10 professionals and nearly as many managers were covered by employer-provided health insurance in 1997. Coverage was also relatively high among technicians (73 percent) and workers in administrative support occupations (69 percent). About two-thirds of persons employed in precision production and operator occupations were covered. Participation was lowest in service occupations (40 percent) and in farming and related jobs (35 percent).

Detailed provisions of health plans. Establishments responding to the EBS are asked to provide brochures that describe the detailed provisions of their employee benefit plans. EBS data

on these plans and their provisions are available from a variety of BLS publications.²⁰ It would be nearly impossible to collect this type of information in the cps, because most respondents would not know the answers to many of the specific questions on the details of their plans, and they would be unlikely to have brochures to provide to cps interviewers.

Health care plans offered by employers can be categorized into three types, based on the method of selecting medical service providers and paying for care: traditional fee-for-service plans, preferred provider organizations (PPO's), and health maintenance organizations (HMO's). Despite the growth in alternative health plans, the traditional fee-for-service plan remains the most common. About 33 percent of full-time workers in 1994-95 participated in a fee-for-service plan, compared with 22 percent in a PPO and 18 percent in an HMO. Table 6 shows the distribution of types of plans, by major industry and occupation group. (See box, p. 10, for a more detailed description of the three types of health care plans.)

The EBS also provides information on the percentage of work-

ers covered by dental, vision, and prescription drug benefits. As the following tabulation shows, nearly half of full-time civilian employees in 1994–95 received dental care benefits from their employer, one-fifth received vision care benefits, and 70 percent received prescription drug benefits:

	Percent			
	Medical	Dental	Vision	Drug
Total, all civilian workers ...	73	45	20	70
Private:				
Medium and large establishments	77	57	24	74
Small establishments	66	28	10	60
State and local government	87	62	35	86

The extent of coverage differed in each of the three Employee Benefits Surveys (of medium and large establishments, small establishments, and State and local government), but, regardless of which survey is considered, prescription drug coverage is the most common benefit and vision care the least common.

The following are other types of EBS information that are published regularly :

- the kinds of specific medical, surgical, psychiatric, and dental procedures the plan will cover;
- the amount of any premiums, deductibles, copayments, or coinsurance that plan participants must pay;
- the maximum out-of-pocket expenses that plan partici-

pants may incur for procedures;

- the maximum lifetime benefits the plan will pay for a participant’s medical expenses;
- the procedures that plan participants must follow to obtain second surgical opinions, reimbursement for emergency treatment, and so forth.

When the BLS National Compensation Survey is fully developed, the sample design, data collection, and processing procedures used to estimate participation in employee benefit plans will be linked to measures of employer costs for benefits. These cost measures currently are published by the Bureau of Labor Statistics in the series titled “Employer Costs for Employee Compensation.” Employer costs for health benefits accounted for 21 percent of the cost of benefits for civilian workers in 1999.²¹

Retirement benefits

CPS data on retirement benefits. The CPS questions on participation in retirement plans changed at least slightly *each year* they were asked during the 1972–93 period, complicating historical comparisons of the estimates. Despite these changes, the proportion of full-time wage and salary workers in the private sector who participated in employer-sponsored retirement plans remained within a narrow range around 50 percent during the 1972–93 period.

The April 1993 CPS included two questions designed primarily to determine whether an employee participated in an

Table 5. CPS estimates of the number and percent of full-time, private-sector, nonagricultural wage and salary workers participating in employer-provided health plans, by occupation, February 1997

[Numbers in thousands]

Occupation	Total employed	Eligible for employer health plan		Participating in employer health plan		
		Number	Percent	Number	Percent of total employed	Percent of total eligible
Total, 16 years and older	74,677	58,700	79	49,421	66	84
Managerial and professional specialty	20,867	18,276	88	16,022	77	88
Executive, administrative, and managerial	11,706	10,066	86	8,717	74	87
Professional specialty	9,161	8,210	90	7,305	80	89
Technical, sales, and administrative support	21,914	17,802	81	14,599	67	82
Technicians and related support	2,934	2,546	87	2,153	73	85
Sales occupations	8,522	6,469	76	5,209	61	81
Administrative support, including clerical	10,458	8,787	84	7,236	69	82
Service occupations	7,362	4,131	56	2,947	40	71
Private household	266	35	13	22	8	—
Protective service	538	337	63	241	45	72
Other service occupations	6,558	3,759	57	2,683	41	71
Precision production, craft, and repair	10,310	7,651	74	6,637	64	87
Operators, fabricators, and laborers	13,928	10,706	77	9,113	65	85
Machine operators, assemblers, and inspectors	7,145	5,851	82	5,013	70	86
Transportation and material moving	3,710	2,777	75	2,403	65	87
Handlers, equipment cleaners, helpers, and laborers ...	3,074	2,078	68	1,696	55	82
Farming, forestry, and fishing	296	134	45	104	35	78

NOTE: Dash indicates fewer than 75,000 workers.

SOURCE: Current Population Survey, February 1997.

Types of health care plans measured in the Employee Benefits Survey

Fee-for-service plans allow patients to choose their own health care providers. The plan reimburses the worker or health care provider after services are received. Benefits are typically subject to major medical limitations, including deductibles, coinsurance, out-of-pocket expense limits, and maximum allowances.

In a *preferred provider organization* (PPO), participants are covered for medical services at a higher rate of reimbursement if they receive care from designated hospitals, physicians, laboratories, or dentists. Individuals may also choose their own provider, although usually at a lower rate

of reimbursement. As in fee-for-service plans, with PPO's, benefits are typically subject to limitations, including deductibles, coinsurance, out-of-pocket expense limits, and maximum allowances that apply to many or all services.

Health maintenance organizations (HMO's) provide a fixed set of medical benefits for a prepaid fee. Most medical services either are covered in full or require patients to pay a nominal copayment, but generally restrict enrollees to specific providers. There are two types of HMO: group/staff arrangements, with services provided in central facilities, and individual practice associations, with providers working from their own offices.

employer-provided retirement plan:

1. Now I'd like to ask about retirement benefits on your job—not government programs like Social Security, but *employer-sponsored* plans. This includes regular pensions. It also includes other plans where money is accumulated in an individual account for retirement—like thrift, savings, profit-sharing, or stock plans. First, does your employer or union have any such pension or retirement plan for *anyone* in your company or organization?

Yes (Go to 2.)
 No
 Don't know

2. Are you included in such a plan?

Yes
 No
 Don't know

Persons who responded affirmatively to both questions are counted as participating in an employer-provided retirement plan. Persons who did not say "yes" to both questions still could be counted as having retirement coverage if they responded affirmatively to the following question, asked later in the supplement about participation in a tax-deferred retirement plan:

Some retirement plans allow workers to make tax-deferred contributions to the plan. For example, you might choose to have your employer put part of your salary into a retirement account, and then you don't pay income taxes on this money until you take it out or retire. These plans are called by different names, including 401(k) plans, pre-tax plans, salary reduction plans, and 403(b) plans. Do you participate in a plan like this?

Yes
 No
 Don't know

It is not clear why some respondents would answer "no" to either of the two main questions on retirement coverage and subsequently answer "yes" to the question on participation in a tax-deferred retirement plan. Nevertheless, some respondents did, and they are counted as participating in an employer-provided retirement plan.²² The May 1983 and 1988 supplements included similar questions on participation in tax-deferred retirement plans. The May 1979 supplement did not include such a question, because tax-deferred retirement plans were a new phenomenon at that time, just having been permitted under Federal law with the passage of the Revenue Act of 1978.

In the February 1995 and 1997 CPS supplements on workers in contingent and alternative work arrangements, the two main questions on retirement benefits were similar, although considerably more brief, than those asked in the April 1993 supplement:

1. Does (fill in employer's name) offer a pension or retirement plan to any of its employees?

Yes (Go to 2.)
 No

2. Are you included in this plan?

Yes
 No

An affirmative response to both questions resulted in the worker being counted as participating in an employer-sponsored retirement plan. The February CPS supplements did not include any follow-up questions specifically about participation in tax-deferred retirement plans. Despite the seemingly substantial differences in the questions asked in 1995 and 1997

Table 6. EBS estimates of the percent of full-time, nonagricultural employees participating in employer-provided health plans, by type of plan, 1994–95

Characteristic	Total	Fee for service	Health maintenance organization	Preferred provider organization
Total, private sector and State and local government, 1994–95	73	33	18	22
White-collar occupations	78	32	21	24
Blue-collar occupations	74	38	15	20
Service occupations	54	21	13	18
Union	87	42	21	22
Nonunion	70	30	17	22
Goods-producing industries	77	39	17	21
Service-producing industries	72	30	19	22
Private sector, 1994–95	71	32	17	21
White-collar occupations	76	32	20	23
Blue-collar occupations	73	39	14	19
Service occupations	46	18	11	17
Union	87	49	16	21
Nonunion	68	30	17	21
Goods-producing industries	77	39	17	20
Service-producing industries	68	29	17	21
Medium and large establishments, 1995	77	28	21	26
Small establishments, 1994	66	36	13	16
State and local government, 1994	87	33	26	26
White-collar occupations	87	34	26	26
Blue-collar occupations	89	26	27	34
Service occupations	84	35	23	23
Union	87	31	30	22
Nonunion	86	35	21	30
Goods-producing industries	97	34	12	51
Service-producing industries	87	33	26	26

NOTE: Sums of percentages participating in each type of health plan do not equal total because about 1 percent of full-time workers are covered by other plans, primarily exclusive-provider organizations, which are groups of hospitals and physicians that contract to provide medical services. Medium and

large establishments are those with 100 or more workers. Small establishments have fewer than 100 workers.

SOURCE: Employee Benefits Survey, 1994 and 1995.

compared with those asked in 1993, there was little difference in the estimated proportion of employed private, nonagricultural wage and salary workers participating in employer-provided retirement plans, as shown in the following tabulation:

	Percent		
	1993	1995	1997
Total employed	44	42	43
Full time	51	49	50
Part time	13	12	13

EBS data on retirement plans. Information gathered from employers in the 1994–95 EBS shows that 66 percent of all full-time workers in private industry and State and local government participate in employer-sponsored retirement plans. Participation among government workers is higher (95 percent) than those in

private industry (60 percent).

CPS and EBS estimates of retirement plan coverage. CPS estimates of participation in retirement plans are considerably lower than estimates derived from the EBS. Among full-time workers, the gap in estimates between the two surveys is 10 or more percentage points, regardless of whether the workers are union or non-union, in goods-producing or service-producing industries, or in white-collar, blue-collar, or service occupations. (See table 7.) Furthermore, the gap in retirement coverage between the surveys is larger than that found for health coverage.

There also are large differences between the surveys in the estimated retirement plan participation rates for workers in State and local governments. According to the CPS, 86 percent of full-time State and local government employees participated in an employer-provided retirement plan in 1995, and 87 per-

Table 7. CPS and EBS estimates of the percent of full-time, nonagricultural wage and salary workers participating in employer-provided retirement plans, selected years

Worker category	Private sector			State and local government		
	CPS		EBS	CPS		EBS
	1995	1997	1994-95	1995	1997	1994
Total	49	50	60	86	87	95
White-collar occupations	56	57	67	—	—	95
Blue-collar occupations	45	46	60	—	—	95
Service occupations	22	23	35	—	—	93
Goods-producing industries	55	56	70	—	—	99
Service-producing industries	45	46	56	—	—	95
Union	75	73	86	92	93	93
Nonunion	44	46	56	82	82	96

NOTE: Dash indicates data are not available.

SOURCE: Current Population Survey, February 1995 and 1997; Employee Benefits Survey, 1994 and 1995.

cent participated in 1997. By comparison, the participation rate estimated from the 1994 EBS was 95 percent. Among unionized workers, however, there was essentially no difference: both the CPS and the EBS show that about 93 percent of unionized State and local government employees participated in a retirement plan. Among nonunion public-sector workers, 82 percent participated in a plan according to the CPS, compared with 96 percent according to the EBS.

It is difficult to explain why the CPS estimates of retirement plan coverage systematically tend to be lower than those derived from the EBS. It also is not clear why the gap between the surveys is larger for retirement benefits than for health benefits. If one assumes that the EBS estimates are closer to the true coverage rates that exist in the workforce, then it may be that the underestimates from the CPS result from some respondents' lack of knowledge about their own benefits coverage or the benefits coverage of other household residents for whom they responded. More respondents may be able to answer questions correctly about health coverage than about retirement coverage because health benefits presumably are used more frequently by a larger number of CPS respondents. Unless a worker expects to retire in the fairly near future and thus may think about or discuss retirement issues frequently, many CPS respondents may know little, if anything, about the worker's participation in an employer-provided retirement plan. Furthermore, as with health care, the EBS participation measure includes workers who have not yet satisfied their employer's length-of-service requirement for participation in the retirement plan. These reasons for the gap in estimates between the CPS and EBS are speculative, but regardless of the reason, researchers, policymakers, and other users of the data should be aware that the estimated coverage rates from the EBS are considerably higher than those from the CPS.

Demographic data on retirement coverage. As shown in table 8, retirement plan participation rates estimated from the CPS are low for full-time, private-sector, nonagricultural wage and salary workers aged 16 to 19 and 20 to 24. Participation rates then rise with age for men and women, until peaking at 60 percent among workers aged 45 to 54 and 55 to 64. Full-time workers aged 65 and older are only about two-thirds as likely as 45- to 54-year-olds and 55- to 64-year-olds to participate in a retirement plan. Overall, men are slightly more likely than women to participate in a plan, although the gap has narrowed considerably since the early 1970s, as the participation rate for men edged down slightly while the rate for women rose by 10 percentage points. The gap between men's and women's retirement plan participation rates is considerably larger among workers aged 45 and older than it is among workers in younger age groups. Whites are slightly more likely than blacks to participate in a retirement plan, and both groups are considerably more likely than Hispanics to participate.

Industry and occupation. The CPS data in table 9 show that full-time workers in manufacturing and in finance, insurance, and real estate had the highest retirement plan participation rate (62 percent) among the major private, nonagricultural industries in 1997. The participation rate for workers in transportation and public utilities (61 percent) was also high, although there was a sizable gap in rates between full-time workers in transportation (49 percent) and those in communications and public utilities (77 percent). Full-time workers in retail trade (31 percent) and construction (29 percent) had the lowest retirement plan participation rates in the private, nonagricultural sector. Workers in those industries were about 3 times as likely as agricultural workers were to participate in a plan. Full-time workers in government were considerably more likely than those in the

private sector to participate in a retirement plan. The rate for Federal employees was 88 percent in 1997, while 87 percent of State and local government workers participated in a retirement plan.²³

Table 10 shows retirement plan participation rates estimated from the cps for full-time, private-sector, nonagricultural workers, by occupation. Sixty-five percent of workers in professional specialty occupations participated in a retirement plan, as did 60 percent of workers in executive, administrative, and managerial occupations. Fifty-nine percent of technicians and related support workers and 54 percent of administrative support workers (including clerical workers) participated in a plan. Just under half of full-time sales workers; operators, fabricators, and laborers; and precision production, craft, and repair workers participated in a plan. Less than a quarter of workers in service occupations had retirement plan coverage.

Characteristics of retirement plans. In addition to the questions used to determine whether workers participated in retirement plans, the May 1988 and April 1993 cps supplements included questions about the characteristics of those plans.²⁴

Table 8. cps estimates of the percent of full-time, private-sector, nonagricultural wage and salary workers participating in employer-provided retirement plans, by age, sex, race, and Hispanic origin, February 1997

Age and sex	Total	White	Black	Hispanic origin
Both sexes				
Total, 16 years and older	50	51	45	28
16 to 19 years	11	11	8	7
20 to 24 years	22	22	21	14
25 years and older	54	55	49	32
25 to 34 years	46	47	40	27
35 to 44 years	57	58	53	34
45 to 54 years	60	61	56	36
55 to 64 years	60	60	58	36
65 years and older	40	41	—	—
Men				
Total, 16 years and older	51	52	46	28
16 to 19 years	13	12	—	10
20 to 24 years	21	22	20	13
25 years and older	55	56	50	31
25 to 34 years	46	47	42	26
35 to 44 years	58	59	53	32
45 to 54 years	63	64	56	37
55 to 64 years	62	64	59	37
65 years and older	43	43	—	—
Women				
Total, 16 years and older	48	49	45	29
16 to 19 years	9	9	6	0
20 to 24 years	22	23	22	17
25 years and older	52	53	49	33
25 to 34 years	46	47	38	29
35 to 44 years	55	55	54	37
45 to 54 years	56	56	55	33
55 to 64 years	56	55	58	34
65 years and older	35	37	—	—

NOTE: Dash indicates fewer than 75,000 workers.
SOURCE: Current Population Survey, February 1997.

Table 9. cps estimates of the percent of full-time wage and salary workers participating in employer-provided retirement plans, by industry and union membership status, February 1997

Industry	Total	Union member	Not a union member
Total, 16 years and older	55	82	50
Private sector	49	73	46
Agriculture	11	—	10
Nonagricultural industries ¹	49	73	46
Mining	58	—	58
Construction	29	58	23
Manufacturing	62	79	59
Durable goods	64	82	59
Nondurable goods	61	72	59
Transportation and public utilities ..	61	84	52
Transportation	49	76	40
Communications and other			
public utilities	77	95	71
Wholesale trade	51	—	49
Retail trade	31	64	29
Eating and drinking places	10	—	10
Other retail trade	39	67	36
Finance, insurance, and real			
estate	62	—	62
Services	45	66	44
Private households	1	—	1
Other services	46	66	45
Business, auto, and repair			
services	33	—	33
Personal services, except			
private households	24	—	24
Entertainment and recreation			
services	26	—	25
Professional services	56	76	54
Hospitals	72	72	72
Health services, except			
hospitals	42	—	41
Educational services	74	95	69
Social services	26	—	24
Other professional services			
Government workers	60	—	60
Federal	87	93	83
State and local ¹	88	95	85
	87	93	82

¹ Estimates shown in this table for union and nonunion workers combined may differ slightly from estimates shown in other tables for full-time wage and salary workers because of differences in the way survey responses are weighted. Questions on union membership are asked of approximately one-quarter of the cps sample each month, whereas most other questions are asked of the full sample. Estimates in this table were tabulated using quarter-sample weights and therefore may differ slightly from estimates shown in other tables in this article that were tabulated using full-sample weights.

NOTE: Dash indicates fewer than 300,000 workers.

SOURCE: Current Population Survey, February 1997.

One key feature of retirement plans is the type of plan. Broadly speaking, there are two types of retirement plans: defined-benefit and defined-contribution plans. Defined-benefit plans legally obligate employers to pay retirees an annuity that is based on a specified formula. The size of the benefit usually depends on the retiree's preretirement salary and number of years of service with the employer. The employer is responsible for making contributions to the pension fund, investing the fund's assets, and paying benefits. The employer also bears the risk if investments perform poorly.

Defined-contribution plans typically specify how much an

employer has agreed to contribute to each employed participant's individual account, but do not stipulate the amount of benefits that will be paid during retirement.²⁵ Many defined-contribution plans also permit employees to contribute to their accounts, often on a tax-deferred basis. The size of the benefit each participant receives during retirement depends on the amount the employer and employee contributed to the plan and the investment earnings on the contributions. There are several types of defined-contribution plans, including tax-deferred 401(k), 403(b), and Section 457 plans, which are named after the sections of the U.S. Internal Revenue Code that permit them to be established. Other types of defined-contribution plans include deferred profit-sharing plans, money purchase pension plans, employee stock ownership plans, and stock bonus plans.

EBS estimates of retirement plan coverage show that 42 percent of full-time workers are covered by a defined-benefit plan, compared with 39 percent by a defined-contribution plan. Fifteen percent participate in both types of plans. Nearly all State and local government workers with retirement coverage participate in a defined-benefit plan. Unionized workers in the private sector are much more likely to participate in a defined-benefit plan than in a defined-contribution plan. (See table 11.)

There is some doubt concerning whether respondents to household surveys such as the CPS are able to provide information on the types of retirement plans they participate in as accurately as respondents to establishment surveys. A look at the data suggests that CPS responses in this regard are not without problems. In the April 1993 CPS, 53 percent of private-sector retirement plan participants (full and part time combined) reported that they were participating in a defined-benefit plan, 46 percent responded that they were in an "individual account" or defined-contribution plan, 7 percent said that they participated in some "other" type of plan, and 12 percent did not know the type of plan they were in. (The sum of these percentages is greater than 100, because some workers participate in more than one type of plan.) By comparison, estimates from the EBS show that 55 percent of private-sector retirement plan participants in 1994-95 were in a defined-benefit plan, a figure similar to the 53 percent estimated from the April 1993 CPS. For defined-contribution plans, however, estimates from the two surveys differ widely. According to the EBS, 73 percent of private-sector retirement plan participants were in a defined-contribution plan, a considerably higher proportion than the CPS estimate (46 percent).

The large discrepancy in the estimated proportions participating in defined-contribution retirement plans signals one problem with the CPS responses, but there also are several other problems. First, under Internal Revenue Service regulations, all retirement plans are either defined-benefit or defined-contribution plans; there is no "other" plan type. The implausible "other" responses, along with the proportion of participants who did not know the type of plan they were in, compose nearly a fifth of the CPS respondents who participated in employer-provided retirement plans in April 1993. These prob-

lems raise doubts about the reliability of CPS information on the types of retirement plans in which workers participate. Some CPS respondents may not have sufficient knowledge of employee benefit plans and terminology to provide detailed information about their provisions. And the problem may be more acute with proxy responses.

Using brochures obtained from establishments, the EBS ascertains a variety of details about retirement plans. This information is nearly impossible to obtain in the CPS. EBS data on the details of these plans are available from a variety of BLS publications.²⁶ Among such details are the following:

- age and service eligibility requirements for retirement
- formulas used to determine the payments retirees receive from defined-benefit plans
- how defined-benefit plan payments are coordinated with Social Security payments
- eligibility and benefit levels for disability retirement
- payments to survivors after the employee's or retiree's death
- increases in postretirement benefits
- specific types of defined-contribution plans, such as savings and thrift, deferred profit-sharing, or stock plans
- methods used to determine the amount of employer contributions to defined-contribution plans
- vesting schedules that determine how much employees can receive from defined-benefit or defined-contribution plans if they leave the employer before retirement

As described earlier, the BLS National Compensation Survey that is currently being developed will link information on plan participation and characteristics with data on employer costs. Such cost information currently is provided in the series on Employer Costs for Employee Compensation.²⁷

Tax-deferred retirement plans. Despite the problems with the CPS data on participation in defined-benefit and defined-contribution retirement plans, the questions in the April 1993 supplement that asked specifically about participation in tax-deferred retirement plans may provide useful information. Respondents may know more about these tax-deferred plans because, unlike determining their participation in many other types of retirement plans, workers must actively choose whether to participate in tax-deferred retirement plans and how much to contribute to them. Workers who participate in such plans also frequently are reminded of their participation because their pay stubs may indicate the amount deducted from their pay and invested in the tax-deferred plan. Many plan participants also receive monthly, quarterly, or annual financial statements that indicate how much money is in their account, as well as the amount of contributions and investment performance since the previous statement. The first four CPS questions on tax-deferred retirement plans read as follows (the first question

was presented earlier in this article):

1. Some retirement plans allow workers to make tax-deferred contributions to the plan. For example, you might choose to have your employer put part of your salary into a retirement account, and then you don't pay income taxes on this money until you take it out or retire. These plans are called by different names, including 401(k) plans, pre-tax plans, salary reduction plans, and 403(b) plans. Do you participate in a plan like this?

- Yes (Go to 3.)
- No (Go to 2.)
- Don't know

2. Does your employer offer you a plan like this?

- Yes (Go to 4.)
- No
- Don't know

3. Approximately what percent of your gross pay will you contribute to the plan this year?

- _____ % (Go to 4.)
- Don't know
- Refused

4. If you were to contribute \$100 to this plan, how much would your employer contribute?

- \$ _____
- Nothing
- Would contribute something, but don't know how much
- Contribution rate varies
- Don't know

The first question provides information on the number of workers who participate in tax-deferred retirement plans. As table 12 shows, 28 percent of full-time, private-sector, nonagricultural wage and salary workers participated in a tax-deferred retirement plan in April 1993, according to the CPS. The comparable EBS estimate for 1994–95 is 38 percent. As with the estimates on participation in all types of retirement plans, the CPS estimate for participation in tax-deferred plans is considerably lower than the EBS estimate. Again, it is not clear why this difference occurs, although one could speculate that employers are better able to provide accurate information on participation in retirement plans than are workers or their proxy respondents.

In conjunction with the first CPS question on tax-deferred retirement plans, the second question provides information on the number of workers who are *eligible* to participate in a

plan, regardless of whether they actually contribute to it. Together, these two questions can be used to determine the proportion of eligible workers who choose to contribute to a plan. The EBS, by comparison, does not provide a direct measure of workers who are eligible to participate.²⁸ According to the CPS, 40 percent of full-time, private-sector, nonagricultural wage and salary workers were eligible to participate in a tax-deferred retirement plan in April 1993, and of those eligible, 68 percent actually chose to contribute to the plan. Readers should keep in mind that the CPS estimate of eligible workers may have its flaws, because some respondents—especially proxies—may not be aware that a worker is eligible for a plan if he or she does not actually contribute to it. Thus, the CPS may understate eligibility even more than it appears to understate participation. Nevertheless, it is useful for employers, public policymakers, and others to have some measure of how many workers who were offered a tax-deferred retirement plan take advantage of the opportunity to invest in it.

The third CPS question on tax-deferred retirement plans provides information on the percentage of pay that participants contributed to the plan. Among full-time participants in April 1993, only 73 percent responded with the percentage of their pay that they contributed to the plan; the remaining 27 percent either did not know the percentage or did not respond. There is no way to verify the accuracy of the responses of participants who did respond with a percentage, but some undoubtedly are inaccurate, especially when obtained from proxies. The EBS used to include a question on the average percentage of pay that all participants in an establishment contributed to their tax-deferred retirement plan. As with the CPS question, the nonresponse rate was high, and many of the responses that employers provided may not have been accurate. Apparently, many employers did not have the information organized in a way that would enable them to provide an accurate response easily. Because of these problems, the question was eliminated from the EBS.

The fourth CPS question on tax-deferred retirement plans asks whether employers supplement employee contributions and, if so, the amount of the employer contribution. As shown in table 12, 68 percent of full-time plan participants received a contribution from their employer, according to the April 1993 CPS. The estimate from the 1994–95 EBS, by comparison, was 85 percent. Many CPS respondents may not be familiar with the details concerning contributions to a plan from their employers, whereas the documentation that establishments provide to EBS data collectors usually describes in detail whether and how much the employer contributes to a plan. This disparity suggests that the EBS information on employer contributions is more accurate than that of the CPS.

Linked surveys

It is clearly beneficial for researchers, policymakers, and others to have information on the relationship between participa-

Table 10. CPS estimates of the number and percent of full-time, private-sector, nonagricultural wage and salary workers participating in employer-provided retirement plans, by occupation, February 1997

[Numbers in thousands]

Occupation	Total employed	Participating in retirement plan	
		Number	Percent
Total, 16 years and older	74,677	37,206	50
Managerial and professional specialty	20,867	12,959	62
Executive, administrative, and managerial	11,706	6,999	60
Professional specialty	9,161	5,961	65
Technical, sales, and administrative support	21,914	11,234	51
Technicians and related support	2,934	1,716	59
Sales occupations	8,522	3,889	46
Administrative support, including clerical	10,458	5,628	54
Service occupations	7,362	1,696	23
Private household	266	10	4
Protective service	538	148	28
Other service occupations	6,558	1,538	23
Precision production, craft, and repair	10,310	4,876	47
Operators, fabricators, and laborers	13,928	6,390	46
Machine operators, assemblers, and inspectors	7,145	3,515	49
Transportation and material moving	3,710	1,720	46
Handlers, equipment cleaners, helpers, and laborers	3,074	1,156	38
Farming, forestry, and fishing	296	51	17

SOURCE: Current Population Survey, February 1997.

tion in employee benefit plans and the sex, age, race, marital status, and other demographic characteristics of workers. Demographic information is best obtained from household surveys like the CPS. As the previous sections have shown, however, the CPS is not as well suited as the EBS to provide accurate information on employee benefits. Accordingly, rather than asking household respondents to provide information on employee benefits and asking employers to provide demographic information, it may be preferable to ask each source for the information that they can provide more accurately. Some researchers have taken such an approach and developed data sources that combine information obtained from both employers and their workers. The development of these linked employer-employee data sets has increased in the United States in recent years, although some other industrialized countries are more advanced than the United States in that regard. Indeed, a May 1998 conference on linked employer-employee data, held in Washington, DC, attracted social scientists and statisticians from more than 20 countries.²⁹

Linked employer-employee data sets take a variety of forms. Some involve linking existing household survey data with existing administrative or survey data from establishments. Other data sets have been designed specifically to collect information from employers as well as employees. The

administrators of such surveys may sample and gather information from establishments and subsequently ask questions of a sample of employees within those establishments. The 1995 BLS Survey of Employer-Provided Training (SEPT95) was designed in this way.³⁰ A 1993 survey sponsored by the W. E. Upjohn Institute for Employment Research used the same approach to obtain information from employers and workers regarding on-the-job training, wages, schooling, experience, and employee benefits.³¹

An alternative approach to designing linked surveys is to sample households and ask the individuals in them to provide information about themselves, along with the names, addresses, and telephone numbers of their employers. With the consent of the employees, data collectors then contact the employers and gather additional information from them. The BLS National Longitudinal Surveys (NLS) have used this approach in a number of instances. Recently, information on participation in re-

Table 11. EBS estimates of the percent of full-time, nonagricultural employees participating in employer-provided retirement plans, 1994-95

Characteristic	Total	Defined benefit	Defined contribution
Total, private sector and State and local government, 1994-95	66	42	39
White-collar occupations	73	46	44
Blue-collar occupations	62	38	38
Service occupations	47	35	19
Union	89	84	23
Nonunion	60	32	42
Goods-producing industries	70	45	48
Service-producing industries	64	41	35
Private sector, 1994-95	60	33	44
White-collar occupations	67	35	53
Blue-collar occupations	60	35	40
Service occupations	35	21	21
Union	86	78	36
Nonunion	56	26	46
Goods-producing industries	70	45	48
Service-producing industries	56	28	42
Medium and large establishments, 1995	80	52	55
Small establishments, 1994	42	15	34
State and local government, 1994	95	91	9
White-collar occupations	95	91	9
Blue-collar occupations	95	91	9
Service occupations	93	90	9
Union	93	94	4
Nonunion	96	88	13
Goods-producing industries	99	80	20
Service-producing industries	95	91	9

NOTE: Medium and large establishments are those with 100 or more workers. Small establishments have fewer than 100 workers.

SOURCE: Employee Benefits Survey, 1994-95.

Table 12. CPS and EBS estimates of the number and percent of full-time, private-sector, nonagricultural wage and salary workers participating in employer-provided tax-deferred defined-contribution retirement plans, selected years

[Numbers in thousands]

Participation in tax-deferred retirement plan	Employee Benefits Survey			Current Population Survey, April 1993
	Total, 1994-95	Medium and large establishments, 1995	Small establishments, 1994	
Total employees	69,284	33,374	35,910	68,874
Participate in tax-deferred plans	26,288	18,250	8,038	19,044
With employer contributions	22,261	15,156	7,105	13,044
No employer contributions ¹	4,027	3,094	933	6,000
Do not participate in tax-deferred plans	42,996	15,124	27,872	49,830
Percent of employees	100	100	100	100
Participate in tax-deferred plans	38	55	22	28
With employer contributions	32	45	20	19
No employer contributions ¹	6	9	3	9
Do not participate in tax-deferred plans	62	45	78	72

¹ The Current Population Survey estimate of the number of participants in tax-deferred retirement plans who received no employer contributions includes participants who explicitly said their accounts received no employer contributions, as well as those who refused to answer or did not know whether the employer contributed.

NOTE: Medium and large establishments are those with 100 or more workers. Small establishments have fewer than 100 workers.

SOURCE: Employee Benefits Survey, 1994 and 1995; Current Population Survey, April 1993.

irement plans was collected from respondents to the NLS Mature Women’s survey, and detailed information about the plans was subsequently obtained from employers.³²

Linked employer-employee data sets have two primary objectives. One objective is to compare how employers and employees respond to the same questions, thereby providing researchers with insight on the accuracy of responses to their surveys. A 1983 study, for example, examined two different linked data sets that included information from employers and their workers on the employers’ industries, the workers’ occupations, coverage under a union contract, weekly hours worked, and wages.³³

Another, more common, objective of linked data sets is to obtain the kinds of information from employers and employees that each can provide more easily and accurately. Ideally, the resulting data set could afford more accurate information without having to ask household or establishment respondents questions that they are not well equipped to answer. In addition to improving accuracy and reducing the burden on respondents—by asking individuals and establishments only those questions they can most easily and accurately answer—linked data sets also provide researchers and policymakers with insights into the interactions between employers and workers. Information on these interactions can be useful for investigating a variety of research questions, such as how employers and workers negotiate pay rates.³⁴ Employer-employee interactions cannot be measured using traditional household or establishment data sources alone.

Linked data sets have their advantages over traditional household and establishment information sources, but they also

have their problems. For example, successfully linking existing household and establishment data requires having sufficient information to identify employers from the one survey with household members from the other, but such identifying information is not always available or complete. Moreover, surveys designed specifically to collect information from employers and their workers typically cost more to administer than traditional surveys, because employers and employees both must be contacted. Accordingly, response rates often are lower, because the need to contact both kinds of respondents increases the probability that sampled establishments or individuals may be unable or unwilling to respond.³⁵ Also, as with traditional surveys, linked surveys present concerns about the privacy of participants and the confidentiality of their responses. And such concerns are heightened in linked surveys because, for instance, employees may feel uncomfortable about having their employers contacted, and employers likewise may not want their employees to be contacted.

THIS ARTICLE HAS IDENTIFIED SOME OF THE DIFFICULTIES that are inherent in collecting detailed information on health and retirement benefits in the household-based Current Population Survey. The establishment-based Employee Benefits Survey provides more accurate information on employee benefits, but it is not well suited to providing information on workers’ demographic characteristics or, for example, health insurance that they receive from sources other than their own employers. If the difficulties with linked surveys regarding cost, response rates, and confidentiality can be resolved, such a survey design may enable researchers to

combine the best attributes of household and establishment data sources to obtain more accurate and useful information

on employee benefits. No such linkage is planned by the Bureau of Labor Statistics at this time, however. □

Notes

¹ For a more complete discussion of the elements of job quality, including employee benefits, see Joseph R. Meisenheimer II, "The services industry in the 'good' versus 'bad' jobs debate," *Monthly Labor Review*, February 1998, pp. 22–47.

² *Employer Costs for Employee Compensation—March 1999*, USDL 99–173 (U.S. Department of Labor, June 24, 1999).

³ See, for example, Sylvester Schieber and John Shoven, eds. *Public Policy Toward Pensions* (Cambridge, MA, MIT Press, 1997).

⁴ The importance of having accurate information to develop public policy on health care is discussed by Linda T. Bilheimer and Robert D. Reischauer in "Confessions of the estimators: Numbers and health reform," *Health Affairs*, Spring 1995, pp. 37–55.

⁵ For more information on the National Compensation Survey, see Harriet G. Weinstein, "Overview of the ncs: Summer 1998," *Compensation and Working Conditions*, Summer 1998, pp. 41–44.

⁶ All of these supplements included questions on employer-provided health and retirement benefits. The May 1988 and April 1993 supplements also included questions on short- and long-term disability benefits, which are not analyzed in this article.

⁷ The March supplement to the cps has included questions on health insurance coverage since 1980. These questions focus on coverage from all sources and have provided less reliable information than the supplements on employer-provided health insurance benefits. See Mark C. Berger, Dan A. Black, and Frank A. Scott, "How Well Do We Measure Employer-Provided Health Insurance Coverage?" *Contemporary Economic Policy*, July 1998, pp. 356–67.

⁸ Information on educational levels also appears to be more easily obtained from household surveys than from establishment sources. Information on educational attainment is available each month from the cps, and estimates are published in the monthly news release, *The Employment Situation*, and in the BLS publication, *Employment and Earnings*.

BLS recently asked employers in four metropolitan areas to provide information on educational attainment in test studies of the National Compensation Survey. These tests showed that employers were unable to provide information on educational attainment for 7 in 10 workers. Although it may surprise some readers that employers so often were unable to provide information about the educational attainment of their workers, it is important to remember that employers may not always find such information relevant. For example, many service and laborer occupations do not require academic credentials to perform the job adequately. Even in specialized trades like plumbing and carpentry, work experience in the occupation is far more relevant to employers than is educational attainment. See John E. Buckley, "Collecting Data on Human Capital Variables," *Compensation and Working Conditions*, Fall 1998, pp. 29–31.

⁹ In addition to the employment estimates from the cps, employment estimates also are available from the BLS Current Employment Statistics (CES) program, a monthly survey of nonfarm establishments that obtains information on employment, hours, and earnings by industry. To illustrate the differences that can occur between cps and CES employment estimates for detailed industries, consider the personnel supply services industry, which consists largely of firms that provide temporary employees to establishments in other industries. The 1998 annual average employment level estimated from the cps for this industry was about 1 million. The employment estimate from the CES program was 3.2 million. In part, this large discrepancy stems from the different treatment of multiple jobholders in each survey. Persons who are paid by more than one "temporary-help" or "staffing" firm during a survey reference period are counted only once in the cps; in the CES program, these

individuals are counted in the employment records of each staffing firm for which they worked. A larger part of the discrepancy probably results from the different way in which the industry is reported in the two surveys. Many cps respondents may report the industry of the client to which a temporary worker was assigned, rather than that of the staffing firm which provided the worker to the client. By comparison, respondents to the CES program report the industry of the establishment that pays the worker—that is, the staffing firm. Thus, if one wants to know how many people are employed in the personnel supply services industry, establishment data are a more reliable source of information than the cps.

¹⁰ This does not, of course, imply that proxy responses are always unreliable. In fact, for many important items in the cps, such as a person's employment or unemployment status, proxy responses may be as reliable as self-responses, at least when an adult respondent answers questions about the labor force activity of another adult in the household. Assessing the accuracy of a response is more ambiguous when the response is from an adult who is answering questions about the labor force activity of youths in the household. For a more detailed discussion of proxy responses in the cps, see Brian A. Kojetin and Judith M. Tanur, "Proxies for Youths and Adults: Communication and Reports of Job Search," *1996 Proceedings of the Section on Survey Research Methods*, vol. 1 (Alexandria, VA, American Statistical Association, 1997), pp. 254–59. See also Norman Bowers, "Youth labor force activity: alternative surveys compared," *Monthly Labor Review*, March 1981, pp. 3–17. Without proxy responses, the cps would cost far more to administer because cps interviewers typically would have to contact sampled households several times to obtain information from each resident of the household. The only alternative to using proxy responses or incurring higher costs would be to obtain no information at all for some household residents.

¹¹ In addition to health insurance and retirement plan provisions, the EBS compiles data on employee work schedules, paid leave, disability benefits, life insurance, flexible benefits plans, and reimbursement accounts, as well as a variety of emerging benefits.

¹² The April 1972 cps supplement was a mail survey that examined the benefits coverage of full-time workers. Data on retirement benefits were examined in Walter W. Kolodrubetz and Donald M. Landay, "Coverage and Vesting of Full-Time Employees Under Private Retirement Plans," *Social Security Bulletin*, November 1973. Health benefits data from the April 1972 cps supplement were not analyzed in that article.

¹³ Retirement plan coverage rates from 1972 to 1993 were published in *Pension and Health Benefits of American Workers: New Findings from the April 1993 Current Population Survey* (U.S. Department of Labor, Social Security Administration, Small Business Administration, and Pension Benefit Guaranty Corporation, 1994).

¹⁴ The EBS measures, among other things, employee benefit programs sponsored by employers who pay some share of the costs.

¹⁵ The high nonresponse rate on this question partly reflects some proxy respondents' lack of knowledge about health plan options of other household members.

¹⁶ *Databook on Employee Benefits*, 4th ed. (Washington, DC, Employee Benefit Research Institute, 1997), p. 301.

¹⁷ The EBS and the cps define union membership differently. In the EBS, the establishment identifies the number of workers in union occupations. Those occupations fulfill the following requirements: a labor organization must be recognized as the bargaining agent for all workers in the occupation; wage and salary rates are determined through collective bargaining and negotiations; and settlement terms, which must include earnings provisions and may include benefit provisions, are embodied in a signed,

mutually binding collective bargaining agreement. In the cps, union members are respondents who replied affirmatively to the question, "On this job, (is/are) (name/you) a member of a labor union or of an employee association similar to a union?"

¹⁸ The cps sample currently includes 50,000 households each month. The 1995 Employee Benefits Survey of Medium and Large Private Establishments sampled 3,462 nonagricultural establishments with 100 or more workers. The 1994 Employee Benefits Survey of Small Private Establishments sampled 2,135 nonagricultural establishments with fewer than 100 employees. The 1994 Employee Benefits Survey of State and Local Governments sampled 860 government establishments.

¹⁹ An establishment is an economic unit—such as a factory, a mine, a store, or an office—that produces goods or provides services, typically in a single physical location. An establishment is distinct from a firm, which may be in a single physical location or may include multiple establishments at different locations. The EBS samples are drawn from a list of establishments, not firms, and readers should be aware that some participants in the survey of small establishments may in fact be a part of large firms.

²⁰ See, for example, *Employee Benefits in Medium and Large Private Establishments, 1995*, Bulletin 2496 (Bureau of Labor Statistics, April 1998); *Employee Benefits in Small Private Establishments, 1994*, Bulletin 2475 (Bureau of Labor Statistics, April 1996); and *Employee Benefits in State and Local Governments, 1994*, Bulletin 2477 (Bureau of Labor Statistics, May 1996).

²¹ The Employer Costs for Employee Compensation series provides estimates by industry and major occupational group, as well as by bargaining status, region, and establishment size. Not surprisingly, the groups with the highest employer costs for health insurance mirror those categories with the higher participation rates. The data on incidence of participation that will be produced annually from the National Compensation Survey will be based on a sample that is about double the current EBS sample. This should enable the Bureau to publish additional geographic, industrial, occupational, and other detailed information and allow for an analysis of the link between plan participation and cost. (See *Employer Costs for Employee Compensation—March 1999*, cited in note 2.)

²² Section 401(k) of the Internal Revenue Code authorizes private-sector, profitmaking firms (and some nonprofit organizations) to offer tax-deferred retirement plans for their workers. Section 403(b) authorizes such retirement plans for nonprofit organizations, and Section 457 authorizes plans for employees of State and local governments. Some tax-deferred retirement plans are funded solely by employee contributions, and that might explain why some respondents answered "no" to either of the first two questions about participation in retirement plans and subsequently answered "yes" to the question on participation in a tax-deferred retirement plan. When answering the first two questions, some respondents may not have considered tax-deferred plans that were sponsored, but not funded, by their employers. When, later in the supplement, these respondents were asked whether they had the option to contribute money to a plan on a tax-deferred basis, they correctly answered affirmatively. Even if a tax-deferred retirement plan does not receive employer funding, it still benefits employees because the employer provides a convenient vehicle through which employees can invest for retirement. More importantly, if the employer had not established the plan and employees instead invested their money in an after-tax mutual fund or savings account, their contributions would be subject to taxation at the time they were made, and their investment earnings would be subject to taxation at the time they were earned. Under an employer-provided plan, employees could defer paying taxes on their contributions and earnings until retirement. Even for employees who are eligible to invest in pretax individual retirement accounts at banks or other financial institutions, the limit on how much they can invest each year is much lower than under an employer-provided plan.

²³ Administrative figures from the Office of Personnel Management indicate that about 96 percent of Federal employees participated in either the Civil Service Retirement System or the Federal Employees Retirement

System in 1997. The considerably lower cps estimate of 88-percent participation among Federal employees may result from a variety of possible response errors in that survey. For example, some cps respondents may not be aware of a household member's participation in a Federal employee retirement plan. Another possibility is that some noncovered workers employed by a private-sector contractor to the Federal Government may be classified incorrectly as Federal employees.

²⁴ The February 1995 and 1997 supplements did not include questions on plan characteristics.

²⁵ For detailed descriptions of the various types of plans and the calculation of benefits, see Ann C. Foster, "Factors Affecting Employer-provided Retirement Benefits," *Compensation and Working Conditions*, Winter 1998, pp. 10–17. See also William J. Wiatrowski, "Factors affecting retirement income," *Monthly Labor Review*, March 1993, pp. 25–35.

²⁶ See note 20 for references.

²⁷ A comparison of EBS data with data from the Employer Costs for Employee Compensation series indicates that employer expenditures for retirement plans are higher in groups for which coverage is more common. In the private sector, employer expenditures were higher for union workers, full-time workers in goods-producing industries, and workers in larger establishments (500 or more employees). Expenditures for union workers' defined-benefit plans were greater than those for their defined-contribution plans. Similarly, employer costs in larger establishments were higher for defined-benefit plans than for defined-contribution plans. Ultimately, the redesigned National Compensation Survey will provide data that will enable researchers to analyze more rigorously the relationship between employer costs and employee participation for a variety of employee benefits. See Harriet G. Weinstein, "Linking Retirement Plan Measures," *Compensation and Working Conditions*, Spring 1998, pp. 52–55.

²⁸ For a discussion of how the EBS estimates a worker's eligibility for, and participation in, a retirement plan, see William J. Wiatrowski, "Counting the Incidence of Employee Benefits," *Compensation and Working Conditions*, June 1996, pp. 10–18.

²⁹ For additional information on the conference and on the major issues regarding linked data, see the series of reports in the July 1998 *Monthly Labor Review*, pp. 48–60.

³⁰ Harley Frazis, Maury Gittleman, Michael Horrigan, and Mary Joyce, "Results from the 1995 Survey of Employer-Provided Training," *Monthly Labor Review*, June 1998, pp. 3–13.

³¹ Mark C. Berger, Dan A. Black, and Frank A. Scott, "How Well Do We Measure Employer-Provided Health Insurance Coverage?" *Contemporary Economic Policy*, July 1998, pp. 356–67.

³² Alan L. Gustman and Thomas L. Steinmeier, *Employer Provided Pension Data in the NLS Mature Women's Survey and in the Health and Retirement Study*, NBER Working Paper no. 7174, (Cambridge, MA, National Bureau of Economic Research, Inc.), June 1999.

³³ Wesley Mellow and Hal Sider, "Accuracy of Response in Labor Market Surveys: Evidence and Implications," *Journal of Labor Economics*, October 1983, pp. 331–44. One data set used in the study included information from the January 1977 cps, linked with information collected from the employers of cps participants. The other data set matched information collected from workers and employers interviewed in the Employment Opportunity Pilot Project Survey.

³⁴ See, for example, Ioannis Theodossiou, "Promotions, Job Seniority, and Product Demand Effects on Earnings," *Oxford Economic Papers*, July 1996, pp. 456–72. See also Robert F. Elliot and Robert Sandy, "Adam Smith may have been right after all: A new approach to the analysis of compensating differentials," *Economics Letters*, Apr. 9, 1998, pp. 127–31.

³⁵ Low response rates occurred in the 1995 BLS Survey of Employer-Provided Training and in the 1993 survey sponsored by the W. E. Upjohn Institute for Employment Research. (See the articles cited earlier in notes 30 and 31, respectively.)