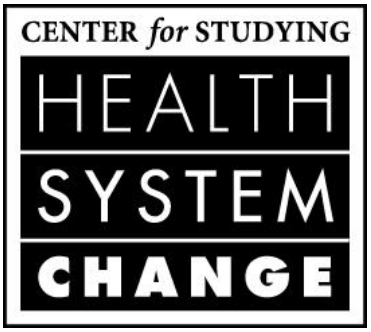
Community Tracking Study

2003 Employer Followback Pilot Study



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The Employer Followback pilot study was a complex effort involving several organizations. The study was designed by a team of researchers at the Center for Studying Health System Change, including Sally Trude, Elizabeth Schaefer, and Joy Grossman. Dr. Grossman played a particularly important role throughout the study, linking research objectives with instrument design and providing perceptive comments on drafts of the final report. The study design relied on the efforts of other employer surveys, including the Medical Expenditures Panel Survey – Insurance Component (MEPS-IC). Jim Branscome of the Agency for Healthcare Policy and Research was particularly helpful, providing background on data collection methods and problems for the MEPS-IC.

Julie Ingels, Nancy Clusen, and Jennifer McNeil were responsible for the Household Survey and employer tracing conducted by Mathematica Policy Research Inc (MPR). Cognitive interviews to evaluate the Employer Survey instrument were conducted under the direction of Carol Cosenza and Patricia Gallagher at the Center for Survey Research, University of Massachusetts Boston. Ken Royal and his staff at the Gallup Organization designed and conducted the Employer Survey. Carolyn Miller played a key role in obtaining interviews with large employers and state heath benefits staff. Beny Wu, Social & Scientific Systems, provided programming support for this report. Laura Berenson (MPR) edited the report.

This is one in a series of technical documents that have been done as part of the Community Tracking Study being conducted by the Center for Studying Health System Change (HSC), which is funded exclusively by The Robert Wood Johnson Foundation and is affiliated with Mathematica Policy Research, Inc.

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EXECUTIVE SUMMARY

A. OBJECTIVES

The Community Tracking Study (CTS) is the core research effort of the Center for Studying Health System Change (HSC), a nonpartisan policy research organization located in Washington, DC, and funded by The Robert Wood Johnson Foundation. HSC's mission is to inform health care decision makers about changes in the health care system, and about how those changes would affect people.

HSC conducts periodic national surveys of households and other groups affected by the health care system. However, because household members generally are unable to provide detailed information about health plan choices and benefits, HSC designed a pilot study to determine whether it could obtain this information from the employers of workers who were included in the CTS Household Survey. Information on employer-sponsored health insurance plans would be obtained by "following back" to employers that the workers had identified in the Household Survey; determining whether the employers offer health insurance; and interviewing human resources personnel about plan costs, cost sharing, and benefits.

The unique contribution of the Employer Followback Survey was to permit analyses of employer-sponsored health insurance (ESI) that considered all plan offerings, including those offered by employers of both spouses in dual wage earner families. The research objectives for an employer followback were developed by HSC staff and were reviewed by a team of distinguished economists who have expertise in analyses of employer-sponsored insurance.

We recognized that response rates would be low because we would lose observations due to interview and item nonresponse in the household and employer surveys, and to the inability to link plan data between households and employers. However, we decided that the data could support publishable behavioral analyses as long as we could correct for selection biases and had sufficient power for significance tests. We were particularly concerned about whether sample sizes for subgroups, such as dual-earner and low-income families, would be sufficient to draw statistically reliable conclusions. Consequently, we decided to conduct a thorough pilot test before proceeding with a large and costly survey.

B. METHODS

An HSC-sponsored conference was held to obtain the views of researchers who have conducted similar employer surveys. After the conference, we reviewed the data collection methods used in those surveys. The key survey design issues were (1) to identify the most effective tracing methods to locate respondents for the Employer Survey; (2) to develop a survey instrument that would answer policy questions without being too burdensome; and (3) to develop a flexible data collection approach adapted to different types of employers.

The CTS consists of 60 national representative communities stratified by metropolitan–nonmetropolitan status, community size, and region. For the pilot survey, Mathematica Policy

Research, Inc. (MPR) conducted a random-digit-dialing, computer-assisted telephone interviewing (CATI) survey of 940 households from April 2002 through June 2002 in 5 of the 60 CTS markets: (1) Newark, New Jersey; (2) Middlesex, New Jersey; (3) Cleveland, Ohio; (4) Columbus, Ohio; and (5) Greenville, South Carolina. The survey included 1,201 currently employed people; of these, 1,003 (83.5 percent) were linked to employers, 131 (10.9 percent) refused to provide the employer's name and address, and 67 (5.6 percent) could not be linked to employers.

The household instrument, which was based on the Round 3 CTS Household Survey, was limited to questions about household composition, health insurance, employment, and income for the primary family unit. To trace the addresses and telephone numbers of the appropriate people to contact about health insurance plans offered to employees, MPR developed a database incorporating information from both the Household Survey and external sources. MPR then unduplicated the file because large employers were listed more than once. The unduplicated employer sample included 755 private or local public sector establishments linked to a single firm or local agency; 29 establishments linked to 16 large, private employers operating in more than one site; 61 locations linked to the three state governments; 25 locations linked to several unions; and 25 locations linked to the federal government.

The Employer Survey instrument was developed by reviewing several previously conducted surveys and by obtaining input from HSC staff and from an actuarial researcher. The instrument included questions about firm and establishment characteristics, whether the establishment offers flexible benefits, and whether the establishment offers health insurance. Respondents from establishments offering health insurance plans were then asked to complete a plan inventory and to answer questions about each plan: product line, premiums, premium contributions by employees, cost sharing for physician visits, hospitalizations, prescriptions, and selected benefits. The instrument was cognitively tested by researchers at the University of Massachusetts Boston.

The Gallup Organization developed an integrated CATI/Web design for the Employer Survey, which was conducted from November 2002 through January 2003. The survey was designed so that we could screen and obtain plan inventories for all employers, but we wanted to adapt the survey to respondents' schedules, and to encourage the use of records by giving employers offering more than one plan the option to complete the survey on the Web. Questions on whether the establishment offers flexible benefits, whether the establishment offers health insurance, and the plan inventory were conducted by CATI; respondents whose establishments offered more than one plan had the option of completing the rest of the interview by CATI or on Gallup's Web site. Interviews with respondents from single-plan establishments were completed entirely on CATI because the plan level questions were too brief to break off the interview and schedule a separate Web survey. Because evidence about the impact of monetary incentives for surveys of establishments is mixed, we designed an experiment to test the impact of incentives on participation ($25 per interview, $50 per interview, $10 per plan, and a control group with no incentive).

We designed separate versions of the survey, including additional questions about sources of plan data, for large, multi-site private employers and for state employers. We made this decision because our primary goal for those employers was to determine the most efficient method to

obtain data when several Household Survey respondents worked for different establishments of the same employer or for different agencies of the same state government.

Gallup's executive interviewers administered the CATI/Web survey to a sample of 755 employers; two survey researchers were responsible for conducting executive interviews with human resources staff of the 16 large, multi-site, private employers and for the 3 states in the sample. Subsequently, we reviewed the plan data that were available from the three states' Web sites. We did not contact any federal employees because all of the data we needed were available on the Federal Employees Health Benefits Plan (FEHBP) Web site. Based on both the difficulties cited by researchers who had conducted other surveys and the small number of workers in the CTS Household Survey sample who had union-sponsored plans, we decided not to pilot test efforts to follow back to unions; our plan was to conduct this followback effort only if we proceeded with a full-scale followback.

C. RESULTS

Tracing efforts generally were successful, as we were able to locate employers for more than 90 percent of the employees who provided employer addresses. Although MPR's tracing team typically was able to locate the appropriate office to call, Gallup's interviewers reported that some of the individuals designated as the contact for plan-related questions either were not the correct contact or were no longer with the company. In addition, interviewers for the Employer Survey discovered that some of the cited employer contacts actually were self-employed individuals or household addresses unrelated to an employer location.

We expected to obtain complete plan information for 40 to 50 percent of the establishments in the CATI/Web sample. However, only 38 percent of the eligible establishments in the sample completed the plan inventory. The useable response rate dropped to 32 percent for the full interview because only 49 percent of the employers who chose the Web option completed an interview, despite receiving frequent e-mail prompts and follow-up calls. Furthermore, item nonresponse for many questions on the completed interviews was high, further reducing the number of observations useable for analysis.

The average length of the CATI interview for one plan was about 20 minutes, with each additional plan adding another 10 minutes to the survey. Incentives increased the response rate slightly, but neither the form of the incentive (a check mailed at the time the respondent agreed to complete the interview or after completing the interview) nor amount had much of an impact.

To analyze employees' plan choices, it is necessary to know which offered plan was chosen. We were more successful in matching insurance plans between household and employer interviews than in completing interviews with employers. We were able to match 80 percent of the plans named by Household Survey respondents to an offered plan.

We obtained in-depth interviews with human resources personnel of only 5 of the 16 multi-site employers; all 5 were in the retail industry, which limited our ability to assess the response of multi-site firms. None of the respondents were willing to provide access to Web sites, electronic data, or plan booklets, which would be essential to obtain plan data from employers with multiple establishments.

However, we were very successful in obtaining plan data from the three states in the sample, as well as from the FEHBP Web site. Thus, virtually all of the plan data we needed were available from state and federal Web sites. Moreover, many local government employees have access to state health plans, which increases the size of the sample covered by these plans.

We estimated sample sizes for various followback analysis domains and concluded that multiplicative nonresponse for private sector workers would yield insufficient samples for most of our proposed analyses. Although we have decided not to conduct an Employer Followback at this time, the results of this pilot study may be useful for researchers planning related studies. Preliminary results for the Round 4 CTS Household Survey indicated that more than half of employees with employer-sponsored health insurance have Intranet or Web site access to their employer-sponsored health plans, and that virtually all of them have access to plan booklets. A followback approach that obtained plan data from Web sites for most public employees and from Intranets, Web sites, or plan booklets for private employees (and for public employees in states that do not have plan data available on Web sites), supplemented by data on premiums and establishment characteristics provided by employers, could be tested for feasibility and cost.

I. BACKGROUND

In this chapter, we provide background on the Community Tracking Study (CTS), the analytic objectives of the Employer Followback, related research, and the data collection issues addressed by the pilot study. In Chapter II, we describe the design and results of the Household Survey that generated the sample of employers. The employer pilot data collection effort, including instrumentation, data collection procedures, and findings, is discussed in Chapter III. Response rates for the various components of the pilot effort, our ability to meet analytic objectives, and recommendations are described in Chapter IV.

A. THE COMMUNITY TRACKING STUDY

The CTS is the core research effort of the Center for Studying Health System Change (HSC), a nonpartisan policy research organization located in Washington, DC, and funded by The Robert Wood Johnson Foundation. HSC's mission is to inform health care decision makers about changes in the health care system at both the local level and the national level, as well as about how such changes would affect people. HSC conducts surveys of those affected by changes in the health care system—households, physicians, and employers—and conducts interviews with health care leaders in 12 communities.

The focus on markets is central to the design of the CTS. Understanding market changes requires a study both of local markets, including the markets' culture and history, and of public policies relating to health care. To track change across the United States, we randomly selected 60 nationally representative communities stratified by region, community size, and whether metropolitan or nonmetropolitan (see Table I.1).[1]

[1]The CTS covers the contiguous 48 states and the District of Columbia. Alaska and Hawaii were not part of the study.

The CTS examines 12 of the 60 communities in depth by conducting site visits and by using survey samples large enough to draw conclusions about change in each community. The 12 communities comprise a randomly selected subset of sites that are metropolitan areas with more than 200,000 people (as of July 1992). We refer to these sites as high-intensity sites.

TABLE I.1

SITES SELECTED FOR THE COMMUNITY TRACKING STUDY

High-Intensity Sites	Low-Intensity Sites		
Metropolitan Areas >200,000 Population[a]	Metropolitan Areas >200,000 Population[a]	Metropolitan Areas <200,000 Population[a]	Nonmetropolitan Areas
01–Boston, MA	13–Atlanta, GA	49–Dothan, AL	52–West Central Alabama
02–Cleveland, OH	14–Augusta, GA/SC	50–Terre Haute, IN	53–Central Arkansas
03–Greenville, SC	15–Baltimore, MD	51–Wilmington, NC	54–Northern Georgia
04–Indianapolis, IN	16–Bridgeport, CT		55–Northeastern Illinois
05–Lansing, MI	17–Chicago, IL		56–Northeastern Indiana
06–Little Rock, AR	18–Columbus, OH		57–Eastern Maine
07–Miami, FL	19–Denver, CO		58–Eastern North Carolina
08–Newark, NJ	20–Detroit, MI		59–Northern Utah
09–Orange County, CA	21–Greensboro, NC		60–Northwestern Washington
10–Phoenix, AZ	22–Houston, TX		
11–Seattle, WA	23–Huntington, WV/KY/OH		
12–Syracuse, NY	24–Killeen, TX		
	25–Knoxville, TN		
	26–Las Vegas, NV/AZ		
	27–Los Angeles, CA		
	28–Middlesex, NJ		
	29–Milwaukee, WI		
	30–Minneapolis, MN/WI		
	31–Modesto, CA		
	32–Nassau, NY		
	33–New York City, NY		
	34–Philadelphia, PA/NJ		
	35–Pittsburgh, PA		
	36–Portland, OR/WA		
	37–Riverside, CA		
	38–Rochester, NY		
	39–San Antonio, TX		
	40–San Francisco, CA		
	41–Santa Rosa, CA		
	42–Shreveport, LA		
	43–St. Louis, MO/IL		
	44–Tampa, FL		
	45–Tulsa, OK		
	46–Washington, DC/MD/VA		
	47–West Palm Beach, FL		
	48–Worcester, MA		

NOTE: Numbers correspond to coding of the site identification variable in the survey.

[a]Based on 1992 Census estimates.

The CTS has qualitative and quantitative components, which we describe here for the first three rounds of data collection:

1. ***Site Visits.*** Researchers examine the forces affecting health care organizations and the way that these organizations are responding by interviewing 40 to 60 health care leaders in each of the 12 high-intensity sites. HSC conducts and manages the site visits, with assistance from outside researchers.

2. ***Household Survey.*** This survey of 60,000 people in 33,000 families focuses on whether consumer access to the health care system is improving or declining over time. Particular areas of inquiry include access, satisfaction, use of services, and insurance coverage. The survey also collects information about health status and sociodemographic characteristics. HSC provides technical direction and oversight, and Mathematica Policy Research, Inc. (MPR) is responsible for sample design, data collection, and weights for the household and followback surveys.

3. ***Employer Survey.*** For the first round of the CTS, 22,000 public and private employers were interviewed to understand how the U.S. population can access the health system nationally and locally. The employers, which spanned establishment size and industry sectors, were asked about what choice of plans they offered, how much their employees contributed to pay for their coverage, whether the employers participated in a purchasing alliance, and whether they provided high-quality information to their employees. HSC collaborated with RAND on the Employer Survey, which was not conducted for either Round 2 or Round 3.

4. ***Physician Survey.*** A sample of more than 12,000 practicing physicians across the country offers perspective on how health care delivery is changing. Physicians respond to a series of questions about whether they are able to provide needed services for patients, how they are compensated, and what effect various care management strategies have on their practices. They also answer questions about their practice arrangements. The Gallup Organization (Gallup) conducts the data collection for the physician survey, and MPR is responsible for the sample design, sample weights, and variance estimation.

Additional background on the CTS is available at HSC's Web site (www.hschange.com).

B. ANALYTIC OBJECTIVES OF THE EMPLOYER FOLLOWBACK

Because household members generally are unable to provide detailed information about health plan choices and benefits, we designed a pilot study to determine whether we could obtain this information from the employers of workers included in the household survey. Information about employer-sponsored health insurance plans would be obtained by "following back" to employers named in the Household Survey; determining whether the employers offer health

insurance; and interviewing human resources personnel about plan costs, cost sharing, and benefits.

The Employer Followback Survey was designed primarily to address issues related to employee take-up of employer sponsored health insurance (ESI). The unique contribution of the survey was to permit analyses that considered all plan offerings, including those offered by employers of both spouses in dual wage earner families. There was considerable interest in using the survey data to analyze elasticities of demand. For example, what does a single estimate of elasticity mean when demand for a certain type of insurance product is likely to be affected by the presence of other types of products? Such analyses required information about all the offerings of an employer, as well as about the characteristics of those insurance products. Other proposed analyses included those to understand the determinants of plan choice; the relationship of benefits to access, satisfaction and utilization; the way that workers choose between firms that offer health insurance and firms that do not offer health insurance; and, among firms that offer insurance, the impact of generosity of benefits; differences between premium sharing by low-wage workers in low-wage firms and premium sharing by low-wage workers in high-wage firms, and comparisons of employer sponsored premiums to those purchased directly.

Because the Medical Panel Expenditures Survey (MEPS) includes a survey that follows back from the household survey (MEPS-HC) to employee establishments (MEPS-IC), and that obtains data that could address many of these issues, a key issue was the value that a CTS Employer Followback Survey could add.[2] After reviewing the CTS's research objectives with a

[2]For an overview of the data collection system, see [http://www.meps.ahrq.gov/].

team of distinguished economists who have expertise in employer-sponsored insurance, we identified several benefits of a CTS Employer Followback:[3]

- The survey could be designed to obtain information on premiums and other information on *all* employer-sponsored health insurance available to the family.
- The survey could be designed to obtain more-detailed information about firm characteristics, such as wage distributions.
- The site-based CTS design permits a wide range of market-focused analyses, including analysis of the effect of local labor market conditions.
- Although the expected response rate for the CTS Employer Followback was likely to be lower than that of the government-sponsored MEPS-IC followback component, the CTS survey potentially could generate a larger sample size due to the large number of privately insured people in its Household Survey sample.

We recognized that the response rate would be low because the survey would have multiple sources of missing information—incomplete information from Household Survey respondents about their employers locations and insurance plans, inability to locate the appropriate employer respondent, unwillingness or inability of employers to respond for some or all plans, missing information for key variables, and inability to link the plan reported by the household with one of the plans offered by and the employer. However, we concluded that the data could support behavioral analyses as long as we could correct for selection biases and had sufficient power for significance tests. A particular concern was whether sample sizes for subgroups, such as dual-earner families (requiring complete data for both spouses) or low-income families, would be sufficient to draw statistically reliable conclusions.

[3]We wish to thank Dr. Jonathan Gruber, Dr. Michael Chernew, and Dr. Alan Monheit for providing valuable insights into the potential contribution of an HSC employer followback survey to improving understanding of employee take up of employer-sponsored health insurance.

C. PREVIOUS RESEARCH

HSC held a conference to obtain the views of researchers who have conducted similar employer surveys. Related surveys and data collection issues are summarized in this section.

1. MEPS-IC (Agency for Healthcare Research and Quality; Data Collection by the Bureau of the Census)[4]

The MEPS-IC follows back to employers or other insurance providers identified by MEPS-HC respondents who reported having private health insurance and includes an independent sample of private sector and government establishments. Data are obtained on as many as four plans per establishment and on company characteristics. The 1996 MEPS HC-IC linked analytic file includes data on slightly fewer than 10,000 workers.[5] Since 1996, the survey has been based on a mixed-mode data collection approach in which questionnaires are mailed to most establishments, supplemented by telephone calls and (in rare cases) in-person visits, to increase response rates. Data for federal plans are obtained from the Web site of the Federal Employees Health Benefits Plan (FEHBP); increasingly, data on many state plans also are obtained from Web sites. The survey has improved in quality since its inception and, in 2002, obtained data on roughly 70 percent of the establishment sample.[6]

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[4]See http://www.ahrq.gov/data/mepsweb.htm#Insurance**.**

[5]The MEPS HC-IC linked analytic file includes 9,590 adult workers aged 18 to 64 yearas. Although the MEPS is designed to collect information from the employers of all these workers, the 1996 data suffered from significant nonresponse. Of the 9,590 workers, 6,483 received an offer of health insurance from their employers. Complete premium information was obtained for only 2,006 of the 6,483 workers, yielding a conditional response rate of 30.9 percent. Multiplying by the overall response rate to MEPS (reflecting survey attrition over the year) results in an unconditional response rate for this population of adult, nonelderly workers of approximately 21.7 percent. (Blumberg et al, 2001).

[6]E-mail communication from James Branscome, Agency for Healthcare Research and Quality (AHRQ), February 2002.

The survey uses different data collection forms to make reporting easier for the larger companies, and it uses highly experienced survey staff to work with those companies. Customized efforts have increased response rates for the largest employers, from 59 percent during the first round of data collection to about 90 percent in 2002.

The MEPS-IC obtains addresses for 92 percent of its respondents and can link 85 to 92 percent of respondents with the Census frame. The Bureau of the Census uses information from the household survey on employers' names, supplemented by directories and a match against the Standard Statistical Establishment List (SSEL), to obtain more-complete addresses. The sample also is unduplicated before fielding. Employer and employee records were matched in 1996; however, that effort was complicated by efforts to link to people by name. Even when given signed permission forms, some employers were reluctant to provide data linked to individuals. After 1996, permission forms were no longer requested and the health insurance plan reported by the employee was matched to one reported by the employer by using plan name and other characteristics (for example, whether or not an HMO).

2. 1997 Robert Wood Johnson Foundation Employer Health Insurance Survey (RAND; Data Collection by RTI)[7]

The Employer Health Insurance Survey (EHIS) was conducted with establishments during 1996 and 1997, using computer-assisted telephone interviewing (CATI), and resulted in 21,047 private sector interviews and 701 public sector interviews (58 percent and 74 percent response rates, respectively); item nonresponse was high for some key questions, particularly those on premiums, with missing values for about 25 percent of the completed interviews. The survey was based on a sample frame constructed from both the CTS's 60-community market sample and states included in the RAND State Initiatives Survey.

[7]See The 1997 Employer Health Insurance Survey (1998).

The CATI program was designed to capture information on as many as six health plans per employer, with any additional plans recorded on hard copy. The sample frame for private plans was the Dun & Bradstreet (D&B) database on companies, and RTI used directory assistance and other sources to obtain missing contact information. Refusal conversions were attempted on most cases, and nonhostile refusals were closed out after two refusals. The impact of advance materials (a letter from The Robert Wood Johnson Foundation, the sponsoring organization; a question-and-answer brochure; and fact sheet) was tested experimentally; the materials were found to have no impact on private establishment response rates, regardless of establishment size. The following specialized procedures were developed to address various sampling and nonresponse issues:

- For multi-establishment interviews, corporate offices were called before contacting individual establishments, to obtain both permission and corporate-level data.
- Federal health plan information was abstracted from the Office of Personnel Management's Web site; contacts were obtained for each state, and substate entities were obtained from a Census of Governments frame.
- A mail survey was offered to establishments that had a policy against participating in telephone surveys; however, only 144 of 1,162 of these establishments that were mailed surveys completed questionnaires, so the effort did not increase survey participation substantially.
- The questionnaire was translated into Spanish, but only 47 Spanish-language interviews were completed.

3. KFF/HRET 2002 Employer Health Benefits Survey (Kaiser Family Foundation and Health Research and Educational Trust; Data Collection by National Research LLC)[8]

This annual survey, which is conducted at the level of the firm rather than the establishment, obtains data about the highest-enrollment indemnity, health maintenance organization (HMO), point-of-service (POS), and preferred provider organization (PPO) plans offered. It also has

[8]See Kaiser Family Foundation and the Health Education and Research Trust, 2002 [http://www.kff.org/content/2002/20020905a/].

modules on retiree benefits, benefits managers' attitudes, and firm characteristics. In 2002, a total of 3,262 employers were surveyed; 2,014 responded to the full survey, and 1,248 were terminated because they did not provide health insurance. The response rate for the 2,014 employers offering health plans was 50 percent. However, 873 employers participated in the 2000 and 2001 surveys, which increases the response rate relative to a survey composed entirely of firms interviewed for the first time.

4. Mercer/Foster National Survey of Employer Sponsored Health Plans (2000)[9]

This annual survey obtains data on the largest plans within each product line (HMO, POS, PPO, and indemnity), as well as information about strategic planning, other employee health benefits, and retiree benefits. The target population includes private employers and government agencies with 10 or more employees. The 2000 survey consists of 3,326 employers (2,797 from a probability sample and 529 from a convenience sample). The sample frame of private employers was selected from the D&B database and was stratified by size. The sample of state, county, and local government agencies was selected from the Census of Governments, and the convenience sample was selected from the list of clients and prospects of William M. Mercer, Inc. The survey was conducted by mail with telephone followup for large firms (more than 500 employees), and by telephone only, without followup, for smaller firms; a Web-based version also was available. The response rate for the 2000 survey was not reported.

[9]See Mercer/Foster Higgins National Survey of Employer Sponsored Health Plans 2000.

D. DATA COLLECTION ISSUES

Based on a review of these surveys and discussions with staff who designed them, several data collection issues were identified and strategies developed to address them for the pilot survey.

1. Employer Survey Data Collection Methods

Although the mixed-mode data collection approach that the Bureau of the Census used to conduct the MEPS-IC obtained much higher response rates than have privately sponsored surveys conducted by telephone, we decided against relying primarily on mail questionnaires for two reasons. First, mail surveys usually require a long field period to obtain completed questionnaires. Because of the high priority given to obtaining same-year premiums for plans matched to households, we felt that a long field period was not practical. Second, establishments are more likely to respond to a survey conducted by the Bureau of the Census for a government agency than to one conducted by a private contractor. In addition, staff at AHRQ informed us that respondents for employer surveys have said that government surveys typically are given higher priority than are private ones.

The use of a telephone interview to establish initial contact provides an opportunity to convince reluctant respondents to participate. Face-to-face data collection was not practical because of its high cost. Consequently, except for the federal and state plans, we decided to use telephone interviewing as our initial point of contact; the FEHBP Web site provided information on federal plans, and the Web sites of the three states in the pilot survey provided information on those states' plans. Because some establishments offer several plans, we adapted to the respondents' work schedules by giving respondents for establishments offering more than one plan the option of completing the survey by CATI or on the Web. The survey was designed to screen eligible respondents and obtain a plan inventory by telephone, after which respondents

whose establishments offered more than one plan could complete the rest of the survey by telephone or on a Web site maintained by Gallup, our survey contractor. Respondents in establishments offering one plan were not given this option; they completed the entire survey by telephone.

2. Adapting to Different Types of Employers

Our goal was to use the pilot survey to adapt data collection procedures to single-site private establishments and local government, multi-site private firms, federal and state employers, and unions. Single site private and local government establishments were surveyed with the CATI/Web instrument. Because the CTS is community based, some firms will have establishments in two or more CTS sites, each of which may offer a different set of health insurance plans to its employees. (A CTS site corresponds roughly to a metropolitan statistical area and represents a single market for health insurance plans.) Based on a review of data from the third round of the CTS Household Survey, 21 percent of private health insurance plans were linked to private (non-government) employers operating in two or more sites. Some of these firms may have had establishments in different CTS sites located in the same state and may have offered the same health insurance plans to their employees. Sixteen percent of the policies were linked to private employers operating in two or more separate states. Consequently, we assumed that 16 to 21 percent of the policies would be linked to employers offering health insurance plans in different markets. Because collecting plan data from these employers' multiple establishments would be very burdensome, we designed a separate pilot survey protocol for multi-site private firms and the three states in the sample to determine feasible approaches to obtaining firm-, establishment-, and plan-level information. The FEHBP Web site contained the data about federal plans that we needed. (See [http://www.opm.gov/insure/health/03rates/index.asp].)

Some employees receive their health insurance from their unions rather than their employers. We decided to exclude union-sponsored plans from the pilot survey because structural features of some of these plans would have made it difficult to separate the employees' health insurance benefit from other benefits, and because there are relatively few of these plans in the CTS sample. We discuss issues related to union-sponsored plans in more detail in Section B.5 of Chapter III.

3. Adapting to Different Plan Contract Years

Because several months could elapse between the Household Survey and the Employer Survey, respondents to the two surveys may respond for different plan years. Given that most plan years begin during the first half of the calendar year, we proposed to minimize the problem by moving the start date of the CTS Round 4 Household Survey to January. However, the change in the Household Survey start date would not eliminate the problem. To identify differences in plan years between the two surveys, we decided to ask employers to provide the month in which their plan year begins, as well as key information about plan changes, such as plan additions, plan deletions, and changes in premiums between plan years. These data could be used to help identify plan changes and to statistically adjust for cases in which the plan remained the same but the premiums changed.

4. Efforts to Increase Response Rates

To assess the effectiveness of advance materials, endorsements, and incentives in increasing response rates, we reviewed previously conducted employer surveys and reviewed various approaches with methodologists. Survey organizations usually mail background information, including a letter signed by an officer of the sponsoring organization or by the principal investigator, to employer representatives before contacting them. The letter provides information about the survey's purpose, sponsorship, data collection method, data

confidentiality, and any participation incentives. Some surveys also provide work sheets or question-and-answer brochures to expand on information provided in the letter. The additional information is designed to help the respondent prepare for the interview, but also may reduce the likelihood of participation if the task is perceived as being too difficult or burdensome.

As part of the 1997 EHIS survey, RTI (the survey contractor) conducted an experiment to test the cost-effectiveness of advance materials because it anticipated that many establishments sampled from the D&B files would have gone out of business, or that the actual respondent would be different from the one mailed the materials. The experiment randomized establishments to three treatments: (1) a letter on the sponsor's letterhead, a question-and-answer brochure, and a fact sheet listing results from a prior employer survey; (2) the same three documents as in the first treatment and a worksheet to help the respondent prepare for the call; and (3) no notification before the call. RTI found that advance mailing did not increase completion rates (Employer Health Insurance Survey, 1998).

Based on the EHIS results, we decided against mailing extensive background information to employers; instead, we designed a one-page letter to inform them about the study's goals, sponsorship, survey methods (noting the Web option), endorsements, and incentive. We believed that endorsements from employer organizations were important, as most survey respondents would not be familiar with the survey sponsor (The Robert Wood Johnson Foundation) or HSC. The letter included links to the HSC Web site so that respondents interested in our research could access background information and reports easily.

Many corporate employees cannot accept monetary incentives for surveys. Moreover, some employer surveys provide reports on findings about employer offerings, which are an important incentive for participation, for free or at reduced cost. Because the CTS Employer Followback Survey data would be linked to the Household Survey and would be used in analyses of

employee take-up and other decisions, research reports were likely to be of relatively little value to employers. Consequently, we decided to test monetary incentives by varying the timing and amount. (The experimental design is discussed in Chapter III.)

II. PILOT HOUSEHOLD SURVEY

A. SITE SELECTION AND INSURER DATABASE

Mathematica Policy Research, Inc. conducted the pilot Household Survey in 5 of the 60 sites in the Community Tracking Study (CTS). The five sites (Newark and Middlesex, New Jersey; Cleveland and Columbus, Ohio; and Greenville, South Carolina) were ones for which we had current information on insurance plans and products, obtained from another pilot study designed to produce a database of insurers and product offerings to aide respondent recall during the household survey. The database was constructed from three directories: (1) The InterStudy Competitive Edge HMO Database, Versions 10.1 and 11.1; (2) the American Association of Health Plans Directory, 2001; and (3) links of the National Association of Insurance Commissioners to state insurance department Web sites for the three states in the survey. Based on the enrollment counts provided by these sources, we prepared estimates of state-level plan enrollment to estimate the percentage of covered lives in each state associated with each plan. Given the variability in these estimates, we excluded plans only if we suspected that they were not a health insurance company, or if we suspected that served fewer than 10,000 people. We conducted a Web search to obtain products for plans and to exclude entities that were network-only or that did not provide comprehensive health services to people with self-paid or employer-supplemented premiums. We also searched for any related Web sites of potential affiliated partners or subsidiaries, to be sure that we had captured the complete set of products offered by each plan.

B. DATA COLLECTION

1. Survey Instrument

The household instrument, which was based on the Round 3 CTS Household Survey, was limited to questions on household composition, health insurance, employment, and income for the primary family unit.[10] We excluded topics that would not be needed for the Employer Followback pilot test and limited the sample to primary family units.[11] Because responses to Household Survey questions about the employer's address could be sensitive to the explanation given informants, we tested employer address questions from the Health and Retirement Survey (HRS) and the Medical Panel Expenditures Survey, household survey component (MEPS-HC). The HRS asks for the employer's name and address in a single item with an explanation built into the question and the MEPS-HC includes separate questions for name and address, with no explanation. For both versions, we added a probe explaining confidentiality.

- ***HRS Version (R5).*** In order to get the best information possible about people's health insurance coverage, we need the name and address of the employer or union that provides this coverage. IF ADDITIONAL PROBE NEEDED: We are trying to understand differences in insurance plans offered by employers and unions. Although we will try to contact your employer or union to learn more about your plan, we will not identify you by name. INTERVIEWER RECORDS EMPLOYER NAME, ADDRESS, CITY, STATE, ZIP CODE, AND TELEPHONE NUMBER, IF POSSIBLE.
- ***MEPS-HC Version (1996 EMO 8-9).*** (1) What is the name of the employer or union who provides this plan? IF ADDITIONAL PROBE NEEDED: We are trying to

[10]See HSC Technical Report Number 46 [http://www.hschange.org/.]

[11]The family insurance unit (FIU) includes an adult household member; his or her spouse, if any; and dependent children 17 years of age or younger, or 18 to 22 years of age if full-time students. The CTS's definition of an FIU differs from the Bureau of the Census's definition of a family, which includes all people living in a dwelling who are related to the householder by blood or marriage. Adult relatives would be included in a Census primary family but would be assigned to separate FIUs for the CTS household survey. We limited the household pilot survey to the primary FIU to save time and were not concerned about excluding adult relatives from a pilot test designed to focus on employed workers and their spouses.

understand differences in insurance plans offered by employers and unions. Although we will try to contact your employer or union to learn more about your plan, we will not identify you by name. INTERVIEWER RECORDS EMPLOYER NAME. (2) What is the address of the employer or union who provides this plan? PROBE REPEATED AND INTERVIEWER RECORDS ADDRESS, CITY, STATE, ZIP CODE, AND TELEPHONE NUMBER, IF POSSIBLE.

In addition to the employer's name and address, the survey included several other items that could be helpful in locating the correct employer:

- Type of business or industry (open-ended question)
- Type of employer (private; federal, state, local government; self-employed; family business; or farm)
- If government, name of agency or department
- Number of employees at the establishment
- Whether the employer operates in more than one location
- Whether respondent is a union member and has a union contract. (Union members and nonmembers often have different plans.)

We used the CTS Round 3 Household Survey procedure to prompt respondents for the names of the insurance plans that their employers provided. Each respondent was asked for the names of as many as three private health plans covering family members. For each plan, the respondent was asked for the insurer and product names; whether documentation was used to provide it; and for the group number, if known. An external program then matched the text response against a database of insurers and products offered in that site. If there was a match to an insurance company name, the program outputted a list of products offered by that insurer, and the interviewer asked the respondent if he or she had one of those plans. Regardless of whether there was an insurance company or plan match, the interviewer asked the respondent for the name of the policy holder, names of the people covered under each plan, and whether the plan

was obtained through an employer or union. The pilot survey household questionnaire is included in Appendix A.

2. Editing Plan Names

Many plan names reported by survey respondents could not be linked to plans in the insurer database because the program did not recognize text with spelling errors or abbreviations (for example, BCBS for Blue Cross and Blue Shield). For this reason, and because we wanted to correct text responses before transferring files containing insurer plan names to the Employer Survey contractor, we reviewed survey responses for unmatched plans against the database and matched plans with obvious similarities. Spellings were standardized to plan and product names in the database.

3. Tracing Employers

The first step in locating employers was to produce an unduplicated file, which contained the case identification number; interview date; employer's name, address, and telephone number; employer type (private, federal, state, local, or self-employed, including family business or farm); whether union- or employer-sponsored plan; and plan name. The intent was to minimize the chances of making multiple calls to the same employer.

After producing an unduplicated file, the tracing team attempted to contact the local establishment (or headquarters site, if that address was provided by the Household Survey respondent) to determine the best source and location for obtaining information about health insurance (or to record that the entity did not offer health insurance). Then they determined the name, address, and telephone number of the employer or union contact. If the information that the Household Survey respondent provided was insufficient for these purposes, the tracing team used several sources, beginning with the least expensive, to complete the task. If the respondent provided the employer's name but an incomplete address, the team used Anywho.com's yellow

pages access and reverse number directories. The business category of Superpages.com also was used to locate addresses. If the respondent provided an inaccurate area code, time zone, or zip code, or if this information was missing, the team made use of Zipkey to obtain the correct information. D&B's Web site, DNB.com, was helpful for determining headquarters locations. If these sources were not useful, the tracing team used Nexis.com, an on-line Lexis-Nexis subscription service, to trace employers. This source provides information that includes the name, address, and telephone number of a business; the number of employees; headquarters or affiliate information; officers' names; and whether the operation is active or inactive.

4. Results

a. Employer Tracing Results

A total of 940 family interviews, including 1,201 employed individuals, were completed; of these, 1,070 reported sufficient information on their employers' names and addresses to initiate tracing.[12] For each employer name provided, the tracing team attempted to obtain the name, address, and telephone number of someone (usually in the human resources department) who could answer questions about health insurance plans, if any were offered. The initial call was made to the establishment cited in the Household Survey; if necessary, additional calls were made to benefits personnel in the headquarters site.

Contacts were obtained for 94 percent of the 1,070 employees who named employers, with very little variation by site or type of employer (see Table II.1). Of the 1,070 employees, 9.6

[12]The purpose of the pilot Household Survey was to generate a sample of employers to be used to evaluate employer followback procedures. Consequently, we did not conduct the types of followup efforts that are typically made for the CTS household surveys. For the pilot, we made up to four callbacks to complete household interviews, and we did not attempt refusal conversions. We did not compute the household survey pilot response rate, as a full-scale followback would have been based on the Round 4 Household Survey.

percent were self-employed or owned a family business or farm.[13] We did not exclude these workers from the employer survey, as we believed that some of their businesses might offer employer-based health insurance. However, after we subsequently discovered that virtually none of them did, we excluded this group from our analyses.

[13]Nearly all (98) of the 104 people in this category were self-employed; only 6 owned a family business or farm.

TABLE II.1

PERCENTAGE OF EMPLOYED PEOPLE PROVIDING AN EMPLOYER CONTACT, BY SITE AND TYPE OF EMPLOYER

	Percentage of Employed People with Employer Contacts	Number of Employed People
Site		
Newark, NJ	95.0	199
Middlesex, NJ	93.1	276
Cleveland, OH	93.4	219
Columbus, OH	96.0	202
Greenville, SC	92.0	174
Type of Employer		
Private	93.6	752
Federal Government	89.5	19
State Government	95.8	71
Local Government	96.8	63
Self-Employed and Family Business	93.2	103
Missing	90.2	62
Total	**93.8**	**1,070**[a]

[a] Of the 1,214 workers in the pilot survey, 131 did not provide employer names and 13 were unemployed or retired. Thus, efforts to obtain employer contacts were made for the remaining 1,070 workers.

b. MEPS-HC and HRS Employer Address Questions

We tested the MEPS-HC and HRS versions of the employer address questions described above. Survey staff attempted to retrieve missing or incomplete information about the employer and insurer after the interview was completed. We controlled for this potentially confounding factor by identifying employers located through additional data retrieval efforts.

The results of the experiment are shown in Table II.2. Because we subsequently dropped self-employed workers and owners of family businesses from the Employer Survey, we have shown the experimental results both with and without these groups. The difference between the two methods was less than two percentage points and was unaffected by either data retrieval efforts or self-employment. Although the difference was not significant for the sample sizes included in the experiment, the HRS version is preferred because, with only one item versus the two-item MEPS-HC version, it is less burdensome.

TABLE II.2

RESULTS OF AN EXPERIMENT TO TEST MEPS-HC AND HRS EMPLOYER ADDRESS QUESTIONS

	MEPS-HC		HRS	
All Employers	Number	Percent	Number	Percent
Located without data retrieval	418	83.4	388	85.3
Located with data retrieval	46	9.2	38	8.4
Not located	37	7.4	29	6.4
Total	**501**	**100.0**	**455**	**100.0**
Employers, Excluding Self-Employed/Family Business				
Located without data retrieval	382	83.2	364	84.9
Located with data retrieval	42	9.2	37	8.6
Not located	35	7.6	28	6.5
Total	**459**	**100.0**	**429**	**100.0**

HRS = Health and Retirement Survey; MEPS-HC = Medical Panel Expenditures Survey, household survey component.

5. Employer File

The employer file was unduplicated and included the following information on each located establishment: employer name, employer contact at the headquarters or local establishment (whomever was responsible for health insurance), the contact's address and telephone number, and the insurers and insurance products (if reported) for plans taken up by Household Survey respondents working for this employer.

We then created five employer files:

- Private and local government establishment file—772 establishments
- Large, private, multi-site employer file—29 establishments (16 firms)
- State file—61 employees; number of work sites not determined (3 states)
- Federal file—20 work sites (combining postal and non postal work sites)
- Union file—25 work sites (number of distinct unions uncertain)

The private and local government establishment file (referred to as the establishment file) was delivered to The Gallup Organization (the Employer Survey contractor), which subsequently reduced the file to 755 unduplicated entities. The data collection for the other employer files was handled by two survey researchers, rather than by the CATI/Web Survey interviewers.

III. PILOT EMPLOYER SURVEYS

A. INSTRUMENTATION

1. Design

The Employer Survey instrument was designed to meet the research objectives of the Community Tracking Study (CTS), described in Chapter I, and to provide sufficient information to be useful for actuarial analysis. The Actuarial Research Corporation (ARC) provided a list of variables needed for actuarial analysis (Appendix B) and reviewed the instrument. The final data elements included in the survey are described in the following list; the questionnaire is included in Appendix C.[14]

- ***E1. Insurance Coverage.*** Asks whether the establishment offers health insurance at the sampled location
- ***E2-4. Flexible Benefits.*** Asks whether the firm offers flexible spending or cafeteria accounts, and if so, whether these accounts can be used to cover health insurance premiums, deductibles and copayments, and other unreimbursed expenses. Asks whether employees who decide not to take health insurance or decide to accept a lower-cost plan can substitute other benefits or receive the cash value of the company contribution
- ***E5. Insurance Coverage by Other Companies.*** Asks whether similar companies in the area offer health insurance
- ***I1-5. Plan Inventory.*** Obtains the name of the insurance carrier, plan name, and product line (health maintenance organization [HMO], point of service [POS] plan, preferred provider organization [PPO], or indemnity plan) for each offered plan at this location; matches plans offered by the employer against the plans reported for the first Household Survey respondent mentioning this employer (if there is more than one); if a match is not clear, instructs the interviewer to verify whether the plan reported by the Household Survey respondent is one of those offered by the employer

[14]Separate versions of this instrument were designed for the computer-assisted telephone interviewing (CATI) survey (Appendix F); Web survey (Appendix G); protocol administered to respondents for large, private employers (Appendix H); and protocol administered to respondents for the three states (Appendix I).

- ***I6-9. Plan Year.*** Obtains the month in which the plan year starts and identifies any plans that were added or dropped during the plan year. (This information is needed to improve linkages when a new plan year starts between the times that the household and employer interviews are conducted.)

- ***I10. Enrollees.*** Obtains the percentage of active employees enrolled in each offered plan at this location

- ***A1-3. Product Attributes.*** Asks whether each plan has a network, and if so, whether it has a gatekeeper requirement and offers out-of-network coverage

- ***P1-PU8. Premiums.*** Determines whether the plan is purchased from an underwriter or is self-insured; obtains the premium (if from an underwriter) or premium equivalent or COBRA (if self-insured) for a full-time employee with individual and family coverage (family coverage for two adults and two children); and whether the premium, premium equivalent, or COBRA changed since the last plan year and, if so, by how much. Changes since the last plan year can be used to adjust premiums for beneficiaries whose plans were offered in the previous plan year.

- ***C1-5. Deductibles.*** Obtains annual deductibles for in- and out-of-network services for individual and family coverage. If the plan has both in- and out-of-network deductibles, asks whether the out-of-network deductible is applied toward the in-network deductible, or whether each must be met separately

- ***C8-C10. Co-Payment for Physician Services.*** Asks for the co-payment or co-insurance rate for in- and out-of-network primary care physicians seen during normal business hours

- ***C11-14. Co-Payment for In-Patient Hospital Services.*** Obtains the type of co-payment rate (set amount per stay, set amount per day, or percentage of total charges) for an in-patient hospital stay for in- and out-of-network hospitals

- ***C15. Annual Limit for In-Network and Out-of-Network In-Patient Hospital Stays within the Plan Year***

- ***C16-C18. Prescription Drug Coverage.*** Asks whether the plan provides coverage, and if so, asks for the co-payment or co-insurance rate for a 30-day supply of a prescription purchased in an in-network pharmacy (if applicable), by tier (up to four tiers)

- ***C19. Covered Services.*** Asks whether the plan covers outpatient mental health services, in-patient mental health services, alcohol and substance abuse treatment, routine dental care, orthodontic care, and vision care

- ***C20-21. Catastrophic Limits.*** Asks for the maximum out-of-pocket expenses for an employee with individual and family coverage.

- ***Es1-8. Establishment Characteristics.*** Asks for the industry; number of employees (firm and establishment); number or percentage of employees, by employment status (permanent full time, permanent part time, and seasonal); gender; age; compensation level; and union membership

2. Cognitive Interviewing

Although most of the survey questions were derived from other instruments, many of them were reworded or were asked in a different context than in the instruments from which they were selected. Consequently, we decided to test several items to determine how respondents interpreted the questions and terminology. The Center for Studying Health System Change contracted with The Center for Survey Research at the University of Massachusetts, Boston (CSR), to ask the questions.

Mathematica Policy Research, Inc. provided the cognitive researchers with a list of 26 private employers obtained through a Lexis-Nexis database search; all the employers were prescreened to identify an appropriate respondent, informed about the goals of the study, and promised $100 for participating in an interview expected to last an hour and a half. A total of 15 cognitive interviews were completed during May 2002. Six interviewers conducted the interviews and were debriefed after their sessions were completed. The interviews, which averaged 1.25 hours, were tape recorded with the respondents' consent.

CSR uses the concurrent-probe approach to cognitive interviewing. With this approach, the test questions are administered in a standardized way to the respondents, after which the interviewer probes to determine how respondents arrived at their answers. The results of the cognitive interviews were used to revise the survey instrument. The report on cognitive interviews and the interviewer protocol are included in Appendix D.

3. Endorsements

We considered obtaining endorsements from several organizations that supported the 1997 Employer Health Insurance Survey (EHIS), but limited our efforts to one organization due to time constraints. We obtained an endorsement from Helen Darling, president of the Washington Business Group on Health, and included it in advance letters mailed to the sampled employers.

B. DATA COLLECTION PROCEDURES

Data collection procedures differed by size and type of employer. Single-site private and local government establishments were included in the CATI/Web survey, whereas separate protocols and data collection methods were used to obtain information from large, private, multi-site employers and state employers. The necessary data on federal plans were available from the Federal Employees Health Benefits Plan (FEHBP) Web site. Additional data collection was not required. Data collection issues for union sponsored plans were investigated, which led to a decision not to include these plans in the pilot survey.

1. CATI/WEB Survey of Private and Local Government Establishments

A total of 755 unduplicated employers were included in the CATI/Web survey. Prior to being called by an interviewer, each employer was mailed a letter based on a randomized incentive treatment consisting of no honorarium, an honorarium of $10 per plan, one of $25 per interview, or one of $50 per interview (Appendix E). The offer of $10 per plan was explained by the interviewer after the initial contact, whereas the offer of $25 or $50 was first mentioned in the letter.

Sixteen interviewers from the Gallup Organization (Gallup) were trained to conduct the pilot survey, which were took place from October 27, 2002, to January 24, 2003. If the establishment address or respondent name were incorrect, efforts were made to obtain a corrected address and name.

Respondents were asked to complete questions about insurance coverage, flexible benefits, and the plan inventory (through item I9) with the interviewers using CATI. If an establishment did not offer health insurance or offered only one plan, the rest of the interview was completed in the same way. However, employers offering more than one plan were given the option of completing the rest of the survey with the interviewers using CATI or by answering questions

themselves on a Web version of the instrument. Respondents selecting the Web option were further randomized to pre-payment (the incentive check mailed immediately after they agreed to do the Web survey) or post-payment (the check mailed after the Web survey was completed). Web survey respondents were given a code to access the Web version of the survey and were sent e-mail and voice mail messages reminding them to complete the survey. (The letter and e-mail reminders are shown in Appendix E.)

The CATI version of the survey instrument is included in Appendix F, and the Web screens are shown in Appendix G. To assist respondents who chose the Web option, the name of the establishment and offered plans that the respondents had reported during the initial CATI interview were read into the Web program and were used as prompts.

2. Large, Private, Multi-Site Employers

The key problem in interviewing large employers operating in many sites was developing an approach to collect plan data from headquarters' locations that could be linked to individual establishments without incurring unacceptable nonresponse and expense. Because review of the Round 3 Household Survey had demonstrated that private employers operating in multiple CTS sites represented as many as one-fifth of employer-based health insurance policies, we invested considerable effort in developing a strategy to balance data collection needs and burden.

First, we reviewed approaches that other organizations have used to obtain establishment-level data from employers operating in multiple sites. Although it was not designed to link employer interviews with employees, the 1997 EHIS included 486 interviews with corporate entities that had more than one sampled establishment. To survey these employers, the approach was to contact corporate offices before contacting individual establishments, both to obtain permission to contact the local sites and to obtain corporate-level data. During the "parent" corporate interview (conducted by CATI interviewers), information was obtained on plans

offered in all establishments (typically, indemnity and PPO plans). This approach reduced the burden on sampled establishments, which were asked to provide data only on any additional plans offered locally to their employees (typically, HMO or POS plans). Local establishment interviews were completed for 78 percent of the 486 multi-site corporate employers in the sample (Employer Health Insurance Survey, 1998.)

The MEPS-IC, which included a sample of employers followed back from employees surveyed in the household survey (MEPS-HC), originally attempted to obtain information from each establishment linked to the MEPS-HC. However, due to high nonresponse, the MEPS-IC dropped this approach during the first round of data collection. Instead, the followback limited the burden on large employers by mailing a single questionnaire to corporate headquarters to obtain data on the plan with the highest enrollment within each product line. The hierarchical procedure used to identify dominant plans is summarized here:[15]

1. If the organization offered to employees more than one Exclusive Provider Plan (HMO, IPA, EPO [exclusive provider organization]), and each plan offered a similar level of benefits and/or premiums, the organization completed only one form for the plan with the largest enrollment.
2. If the organization offered more than one Exclusive Provider Plan (HMO,IPA, EPO) to employees, and each plan offered a different level of benefits and/or premiums, it completed a form for the two plans with the largest enrollments.
3. If the organization offered more than one mix of PPO and POS plans (for example high-, standard-, and low-option), and if the level of benefits and/or premiums differed for each option, it completed a form for each option.
4. If the organization offered more than one conventional indemnity plan, it completed a form for the largest plan.
5. Respondents were told to call the data collection organization (Bureau of the Census) if they needed assistance in selecting a plan.

[15]Information on MEPS-IC followback procedures was provided by Jim Branscome of the Agency for Health Care Research and Quality (AHRQ) in various e-mail communications.

Although the MEPS-IC followback approach was appealing due to the way that it reduced burden on employers, we were reluctant to sacrifice information about establishment plan offerings because a major goal of the research was to understand employee choices in selecting among health plan offerings, and offerings often varied considerably by establishment. Consequently, we used the pilot survey to interview large, multi-site employers to determine both the range and characteristics of plans offered at the corporate and establishment levels and feasible approaches to collecting the data. The protocol used to interview large, multi-site, private firms and the advance letter describing the survey is included in Appendix H; to encourage cooperation for the pilot, respondents were offered $100. The interviews were conducted by two survey researchers (a Gallup staff member and an independent consultant), rather than by field interviewers, because we wanted to use interviewers who understood our research objectives, and who could modify the sequence and structure of the protocol to obtain the information we needed.

The protocol for large, private, multi-site employers first obtained background information on the characteristics of the firm (similar to questions asked in the CATI/Web survey) and then obtained information on the variability of plan offerings within product lines (HMO, PPO, POS, and indemnity). For each product line, we asked for the number of different plans offered to active employees, the number offered nationally, the number offered locally, the percentage of active employees (if any) participating in plans offered nationally, and the names of those plans. For plans offered to all active employees nationally, we asked whether premiums, premium contributions, co-payments, or deductibles varied by location. The objective was to determine whether there was enough consistency among dominant plans to use an approach for the full survey similar to the one used in the MEPS-IC.

We also wanted to determine whether a national headquarters or local human resources employee could answer questions about the establishment and locally offered plans. After obtaining information about national plans, we asked the corporate headquarters respondent to answer establishment- and plan-level questions on sites included in the pilot sample, or to designate a local human resources employee to provide this information. These questions were the same as the ones included in the CATI/Web instrument, but they were structured for a hard-copy protocol that could accommodate multiple respondents and information sources.

Data collection costs, nonresponse, and burden would be reduced for firms providing plan information from Web sites, computer files, or other centralized sources. We also were prepared to modify data collection methods for firms matched to many households by making personal visits, if necessary. We concluded the interview by asking the corporate representative whether the information we wanted could best be obtained from data files, a Web site, or plan booklets; whether it would be easier to obtain this information from headquarters or local sites; and whether it would be convenient to send a member of our staff to one of the firm's locations to obtain the data.

3. States

For the three states in our sample, we contacted senior human resources staff who are familiar with health plan information. We developed a state government protocol and advance letter (shown in Appendix I), which was administered by the consultant who contacted the large, multi-site, private employers.

The protocol was designed to determine whether the states offered the same set of plans to all active employees and, if not, whether plan offerings varied by agency, by location within the state, or by some other characteristic. We asked whether teachers or other local or county employees were covered by state plans and, if so, whether they were offered the same plans as

were offered to state employees. We also asked whether is the state maintained a list of all state plans that included geographic and employee coverage; whether some plans were offered only in particular areas of the state or to certain types of employees; whether the plan year began on the same month for all plans; and whether we could obtain plan booklets, access to Web sites, or data files.

After the consultant completed the interviews, we determined that virtually all data elements for offered plans could be obtained from Web sites and related links provided by the three pilot states. AHRQ staff indicated that many states that had been asked to provide plan information for the MEPS-IC provided Web sites from which these data were obtained. This finding (discussed in detail in Section C.3.a) was one of the most useful outcomes of the pilot survey, as it demonstrated how easily Web-based data on health plans can be matched to state employees completing household interviews.

4. Union-Sponsored Plans

We contacted AHRQ staff to benefit from their experience in collecting data from union-sponsored plans.[16] The MEPS-IC differentiates between union-sponsored plans that are employer based and health plans that are offered by a union or trade association. For employer-based union-sponsored plans, the MEPS-IC makes efforts to obtain plan data from the employer, defaulting to the union to collect missing information. Often, the employer is the best source of enrollment and premium information, but the union may have more information about plan details.

[16]Based on e-mail communication with James Branscome, AHRQ, May 8, 2002.

After initially attempting to obtain data from plans directly offered by unions, the MEPS-IC discontinued the effort due to poor response rates. The MEPS-IC observed several structural features of union-offered plans that complicate data collection efforts. Many union plans are "composite" plans that have the same rate for single and family health insurance coverage; others cannot report annual or monthly premiums or enrollee contributions, and some are set up as Taft-Hartley trusts, co-managed by representatives from union and management. Under composite plans, the employer may pay an hourly rate into a health and welfare fund, which may cover health insurance as well as dental, life, and disability insurance. Union benefits personnel may or may not be able to separate health insurance from other costs for COBRA reporting. If they can, respondents may prefer to report plan costs in terms of dollars per hour worked and number of hours required to work during an accounting period (weekly, monthly, or annually). Workers may have to work a minimum number of hours per week to cover health insurance costs.

We decided not to pilot test efforts to follow back to union-offered plans unless we proceeded with a full-scale followback for the CTS Round 4 Household Survey. We based this decision on the structural differences between employer- and union-sponsored plans and difficulties in collecting the data that were cited by the MEPS-IC.

C. SURVEY RESULTS

1. CATI/Web Survey of Private and Local Government Establishments

In the following sections, we review the results of the CATI/Web survey, focusing on nonresponse and health plan matches between household and employer interviews. Nonresponse can occur at several levels: the employer interview, the individual plan (respondents may agree to conduct the interview but not provide information on one or more offered plans), and individual establishment and plan-level questions. In addition, it may not be possible to match data from one of the plans provided by the employer to the plan reported on the Household

Survey. Missing data at each of these stages reduce the sample available for analysis. In the following sections, we also assess the quality of information about health insurance product line (HMO, POS, PPO, and indemnity).

a. Disposition of the Employer Sample and Response Rates

A total of 755 entities were included in the CATI/Web survey of private and local government employers, which was conducted from October 22, 2002, through January 24, 2003 (see Table III.1). A total of 10.2 percent of the 755 entities (n = 77) were considered ineligible because they were owner operated, single-employee businesses (n = 12), self-employed individuals (n = 49), nonexistent locations (n = 7), or home addresses with no business activity (n = 9).

Because respondents whose employers offered multiple plans had the option of completing the survey with CATI or on the Web, some interviews could be partially completed if respondents chose the Web version but did not complete it after prompting. Consequently, we computed two response rates based on the 678 eligible employers. The first response rate was defined as the ratio of completed employer interviews to eligible employers, where a completed interview was completed entirely with CATI or was begun with CATI and completed on the Web. A completed interview could have omissions (codes of don't know, refusal, or missing) to individual questions. The second response rate was defined as the ratio of completed or partially completed employer interviews to eligible employers. An interview could be partially completed if a respondent selected the Web option but did not complete the Web survey, which included questions on each plan named in the plan inventory and the questions on establishment characteristics. The response rate with partial interviews included was 38 percent (n = 257 employers) and with partial interviews excluded was 32 percent (n = 217 employers).

A total of 178 interviews were completed entirely with CATI, and 79 were initiated with CATI and continued with the Web option. Only 39 (49 percent) of the 79 visited the Gallup Web site and completed the survey. The poor response to the Web survey indicates that the questions took longer or were more difficult to answer than respondents choosing this option had expected. The presence of an interviewer may have facilitated participation in the CATI survey. However, it is also possible that many of the respondents who decided not to complete the Web survey (all of whom offered two or more health plans) would have terminated the CATI interview if they had been asked to complete the entire survey in that way.

At the close of the pilot survey, a total of 185 (27 percent) of the 678 eligible or potentially eligible establishments reached a final disposition of final refusal, screener refusal or breakoff, or other nonresponse, and 196 (29 percent) were coded as callbacks, answering machines, or no answers. An additional 40 telephone numbers (6 percent) were identified as disconnected numbers and were not pursued further.

A key question is whether a significant fraction of the employer interviews coded as callbacks, answering machines, or no answers could have been completed if the survey had been extended. The Employer Survey was conducted during a period affected by late December vacations, and the interviewers indicated that some respondents said they were busy with health benefits and other activities during January. Extending the survey might have increased the response rate. However, the survey was fielded for three months, and a considerable number of calls were made to contact sampled employers. Respondents who did not respond after multiple calls may have avoided participation by not accepting a call. The poor response to the Web survey was particularly discouraging, as that effort was intended to reduce burden for employers providing plan choices to their employees.

b. Monetary Incentives

We varied the amount of the incentive (no honorarium, $10 per plan, $25 per interview, and $50 per interview) and the timing of the check. Half the respondents who chose the Web option were mailed checks after they agreed to participate (pre-payment), and half received checks only after they completed the Web survey (post-payment). We could not mail checks in advance to respondents completing the interview with CATI because survey eligibility and the appropriate respondent were determined during the interview.

Offering an incentive increased the response rate, but none of the treatments yielded a response rate (based on completed interviews) of even 40 percent. The response rate based on completed interviews was 25 percent for respondents who did not receive an incentive, and 34 percent for those who did. Response rates among those receiving incentives as treatments varied from a low of 31 percent to a high of 39 percent. The most successful treatment offered $50 with pre-payment for respondents choosing the Web survey.

For respondents choosing the Web survey, pre-payment may have affected willingness to participate, as the pre-payment Web completion rate for the combined $25 and $50 treatments (60 percent) was substantially higher than that for the combined $25 and $50 post-payment treatments (37 percent). However the sample sizes were quite small (12/20 versus 7/19). For the variable $10 incentive, the Web completion rate was lower with the pre-payment than with the post-payment (38 percent 67 percent, respectively). Sample sizes for these cells were even smaller (3/8 versus 6/9) than for the other treatments, but anecdotal evidence from the interviewers suggested that the variable incentive was difficult to explain to respondents and may have confused them.

Overall, we conclude that an incentive increased the response rate, that the incentive should be a fixed amount regardless of the number of offered plans, and that pre-payment is preferable

to post-payment for respondents choosing the Web survey. Nevertheless, none of the incentive treatments resulted in a response rate of even 40 percent.

TABLE III.1

DISPOSTION OF THE CATI/WEB EMLOYER SAMPLE, BY TYPE OF INCENTIVE
(NUMBERS)

Disposition	No Incentive	Variable $10 per Plan Pre-Pay	Variable $10 per Plan Post-Pay	$25 Fixed Pre-Pay	$25 Fixed Post-Pay	$50 Fixed Pre-Pay	$50 Fixed Post-Pay	All Incentive	Total
Completed or Partially Completed Interview									
Completed CATI interview	32	25	26	23	23	26	23	146	178
Completed CATI/Web interview	11	3	6	7	2	5	5	28	39
Partially completed interview (Web interview not returned)	12	5	3	5	7	3	5	28	40
Subtotal	55	33	35	35	32	34	33	202	257
Nonresponses									
Final refusal	39	16	16	16	16	12	21	97	136
Screener don't know or refusal	4	4	2	2	2	1	3	14	18
Break off/screening incomplete/other final nonresponse	6	7	2	4	1	5	6	25	31
Callbacks	46	22	20	20	17	16	14	109	155
Answering machine	8	3	3	2	7	5	3	23	31
No answer/busy	3	2	0	0	3	2	0	7	10
Subtotal	106	54	43	44	46	41	47	275	381
Disconnected Number	9	2	8	8	4	5	4	31	40
Ineligible									
One-person business (Q92)	3	0	1	3	2	2	1	9	12
Self-employed	13	4	5	4	7	9	7	36	49
Nonexistent location	2	0	2	0	0	3	0	5	7
Not a business	2	1	0	1	2	3	0	7	9
Total	190	94	94	95	Q93	97	92	565	755
Response rate 1 (excluding Web noncompletions)[a]	25%	31%	37%	34%	30%	39%	33%	34%	32%
Response rate 2 (including Web noncompletions)[b]	32%	37%	41%	40%	39%	43%	39%	40%	38%
Web completion rate [c]	48%	38%	67%	58%	22%	63%	50%	50%	49%
Web completion rate ($25 or $50 pre-payment)[d]									60%
Web completion rate ($25 or $50 post-payment)[d]									37%

[a]Response rate 1 = CATI + Web completions/total ineligible.

[b] Response rate 2 = CATI +Web completions + Web noncompletions/total ineligible.

[c] Web completion rate = Web completions/Web completions + Web noncompletions.

[d] Web completion rate ($25 or $50 pre-payment/post-payment) = Web completion rate for cells assigned to $25 or $50 pre-or post-payment.

c. Completion of Health Plans Listed in Plan Inventory

In the CATI interview, 257 employers completed the plan inventory section. Of these, a total of 231 offered at least one plan to their employees. Only 95 (41 percent) of the 231 employers offering at least one health insurance plan offered more than one plan. The large fraction of single-plan establishments is due, at least in part, to the exclusion from the CATI/Web survey of large, private, multi-site employers, state employers, and federal employers, which typically offer more plans to their employees (Table III.2).[17]

TABLE III.2

NUMBER OF PLANS, BY EMPLOYER TYPE, FOR ESTABLISHMENTS INCLUDED IN THE CATI/WEB SURVEY OFFERING ONE OR MORE HEALTH INSURANCE PLANS

	Employer Type					
	Private Employer		**Local Government**		**Total**	
Number of Plans	Number	Percent	Number	Percent	Number	Percent
One	124	62.6	12	36.4	136	58.9
Two	39	19.7	5	15.1	44	19.0
Three	12	6.1	6	18.2	18	7.8
Four	12	6.1	4	12.1	16	6.9
Five or More	11	5.6	6	18.2	17	7.4
Total	**198**	**100.1**	**33**	**100.0**	**231**	**100.0**

Note: Totals may not equal 100 percent due to rounding.

Unfortunately, we obtained responses to plan-level questions for only 68 percent of inventoried plans, with all of the missing plans linked to employers choosing the Web option

[17] Although the sample designs differ, the 2002 Employer Health Benefits Survey conducted by the Kaiser Family Foundation and Health Research and Educational Trust (KFF/HRET, 2002, Exhibit 4.2) provides the best concurrent estimate of the distribution of health plans by employer size This survey, whose sample was selected from a D&B list of the nation's private and public employers with three or more workers, shows that 7 percent of small firms (3 to 199 workers), 57 percent of mid-sized firms (200 to 999 workers), 71 percent of large firms (1,000 to 4,999 workers), and 83 percent of "jumbo" firms (5,000 or more workers) offered two or more health plans in 2002.

(Table III.3). We defined a completed plan as one for which the respondent was asked all the relevant questions through Question 77 —"Does the plan provide prescription drugs to active employee enrollees?" Under this definition, the respondent was asked the questions that were most critical for analysis, including questions on premiums, cost-sharing, and prescription drugs; however, respondents may have refused to answer or may not have known the answers to specific questions. All 136 establishments offering a single plan answered the plan-level questions during a CATI interview, resulting in 139 completed plans. (Three respondents added plans during the interview.) Among 93 establishments offering a choice of plans and indicating a willingness to provide plan information, 14 (15 percent) completed the questions during a CATI interview, and the remaining 79 (85 percent) chose the Web option. The 14 respondents for multi-plan establishments who chose CATI completed questions on all 32 plans, but the 79 multi-plan establishments choosing the Web option completed only 123 out of 261 plans. Overall, plan information was provided for all plans offered by single-plan employers and was provided for 53 percent of the plans offered by multi-plan employers, resulting in data for 68 percent of all plans named in the plan inventory.

TABLE III.3

COMPLETION OF PLAN-LEVEL QUESTIONS, BY NUMBER OF OFFERED PLANS AND BY DATA COLLECTION METHOD

	One Plan Offered	**More than One Plan Offered**			**Total Offered Plans**
	CATI	CATI	Web	CATI and Web Combined	
Establishments (Number)	136	14	79[a]	93	229
Plans (Number)					
Plan-level questions completed [b]	139[c]	32	123	155	294
Plan-level questions not completed	0	0	138	138	138
Total plans [d]	**139**	**32**	**261**	**293**	**432**
Percentage of Completed Plans	**100.0**	**100.0**	**47.1**	**52.9**	**68.0**

[a]Excludes one respondent who terminated the interviewer before being asked whether he or she had Internet access, and one who refused to continue with the interview after being given the option of completing the survey on the Web or with CATI.

[b]We defined a completed plan as one for which all the relevant questions through Q. 77 were asked (Does the plan provide prescription drugs to active employee enrollees?).

[c]Three respondents added plans during the interview.

[d]Excludes three plans linked to the two nonresponding employers referenced in footnote a.

d. Item Nonresponse

In addition to data losses resulting from nonresponse to the CATI and Web surveys, data losses could occur because respondents refuse or are not able to answer specific questions (item nonresponse). Item nonresponse may be more likely to occur on employer surveys that request information respondents perceive to be confidential, or that requires access to records. We assessed item nonresponse rates (defined as the ratio of refused, not known, and incorrectly skipped items to the number of items that should have answered) for three sets of questions:

- Insurance coverage, flexible benefits, and plan inventory (Appendix F CATI instrument, Qn1–25,)
- Establishment characteristics (Appendix F CATI instrument Qn91–102)
- Plan level costs and benefits (Appendix F CATI instrumentQn26–90)

Because item nonresponse rates in the CATI and Web versions of the survey differed, we show item nonresponse rates for both data collection modes for the plan-level questions. Item nonresponse rates for questions missing more than five percent of valid responses are shown in Table III.4. For comparisons of CATI- and Web-based plan questions, we show the rates for both data collection methods if item nonresponse rates for either data collection method was greater than five percent.

Respondents were able to answer questions about insurance coverage, flexible benefits, and the names of offered plans. The only question in this sequence with more than 5 percent nonresponse was whether an employee accepting a lower-cost plan can substitute other benefits (6.6 percent nonresponse). Item nonresponse rates were considerably higher for questions about establishment characteristics, with rates often exceeding 20 percent and 30.

Item nonresponse rates to plan-level questions are shown separately for plans completed using CATI and the Web site. In general, item nonresponse rates were much higher when the respondent chose the Web site, indicating that interviewers had to provide assistance by answering respondents' questions and prompting the respondents to estimate or look up answers to difficult questions. Furthermore, items that had lower Web-based item nonresponse rates than CATI item nonresponse rates were due to higher nonresponse on screening questions that preceded these questions. For example, the item nonresponse rate for the item on annual deductible for single coverage for in-network services (Qn50) was 2.2 percent for Web-based interviews on plans and 6.3 percent for CATI interviews on plans. However, this question was asked only if the respondent indicated there was a deductible for in-network services (Qn49). For Qn49, the item nonresponse rate was 10.6 percent for Web-based interviews on plans and only 2.9 percent for CATI interviews. Thus, the lower item nonresponse rate for Web-based interviews was due to the larger percentage of respondents who screened out of Qn49. We had

hoped that Web access would enable respondents to access plan information that was not available during a telephone interview. This apparently was not the case for health plan costs and benefits.

Respondents were asked for the premium equivalent or COBRA for single and family coverage under self-insured plans, and for single and family premiums under plans purchased from an underwriter. They also were asked for the employee contribution and about changes in premiums since the last plan year. Respondents were better able to provide premium information for purchased plans than for self-insured plans. Item nonresponse rates for the questions on premiums and premium contributions did not exceed seven percent for purchased plans but were much higher for self insured plans.

Item nonresponse rates were 5 to 10 percent for most of the questions asking for deductibles and co-insurance for physician and hospital services. The following questions had higher item nonresponse rates:

- Whether an out-of network deductible is applied toward in-network services (15.8 percent nonresponse on the CATI version and 28.0 percent on the Web version)
- The co-payment for an out-of-network visit with a primary care practitioner (PCP) (17.4 percent nonresponse on the CATI version; unable to differentiate legitimate skip from nonresponse on the Web version)
- The amount per stay and amount per day for a hospital visit (42.9 percent nonresponse on the CATI version; no observations on the Web version) [18]
- The maximum amount the plan will cover for in-network stays during a plan year (38.5 percent nonresponse on the CATI version and 50 percent on the Web version)

[18] However, the co-payment for hospital visits under most plans is a percentage of the charges, and the question on charges had a much lower item nonresponse rate (7.1 percent on the CATI version); we were unable to differentiate legitimate skip from nonresponse on the Web version.

and the maximum amount it will cover for out-of-network stays during a plan year (45.0 percent nonresponse on the CATI version and 40 percent on the Web version)[19]

Item nonresponse rates were fairly low for questions about prescription drugs. For the CATI version, the five percent nonresponse threshold was exceeded for questions about the number of tiers (7.1 percent) and for the question on annual limit on prescription benefits (5.6 percent). For the Web version, 9.8 percent of the respondents did not answer the question on whether prescription drug benefits were provided and 9.5 percent failed to answer the question on the annual limit to prescription benefits.

There were few omissions to CATI-based questions on covered services; the 5 percent nonresponse threshold was exceeded for only out-patient mental health (7.0 percent nonresponse), in-patient mental health (5.2 percent), and alcohol and substance abuse treatment (7.6 percent). However, item nonresponse was much higher for Web-based questions, ranging from 9.8 to 13.8 percent for the six items in the sequence. The three other questions about benefits were questions on routine dental care, routine orthodontic care, and vision care.

The item nonresponse rate for the question about catastrophic limits was high (21.5 percent for the CATI version and 35.0 percent for the Web version). This question, which was asked for actuarial value purposes, may have had a high item nonresponse rate because it is likely that only the benefits person who had negotiated the catastrophic limits would have known the amount. Item nonresponse rates were much higher for the question about maximum out-of-pocket expenses for active employees with family coverage (100 percent nonresponse for the CATI

[19]Although nonresponse was very high for these questions, most plans do not limit the amount they will cover for in-patient hospital stays during a plan year. These questions were included in the survey because coverage of in-patient stays can have a substantial impact on actuarial values.

version and 70.6 percent for the Web-based version), but this question applied to relatively few plans.

TABLE III.4

ITEM NONRESPONSE

Topic and Question[a]	Percentage not Responding (if More than Five Percent)[b]	
Insurance Coverage, Flexible Benefits, Plan Inventory, and Plan Year	n=231	
Qn5b. If employee accepts lower-cost plan, can he or she substitute other benefits?	6.6	
Establishment Characteristics	n=228	
Qn94. Employer operates in more than one location	6.6	
Qn97a. Percentage or number of employees who are full time	18.4	
Qn97b. Percentage or number of employees who are permanent part time	22.8	
Qn97c. Percentage or number of employees who are temporary or seasonal workers	25.0	
Qn98. Percentage or number of employees who are women	17.5	
Q99a. Percentage or number of employees who are <30	28.9	
Q.99b. Percentage or number of employees who are >50	28.0	
Q100/101. Employee wage distribution	34.6	
Q.102. Percentage or number of employees who are union members	12.7	
Plan-Level Questions	CATI	Web
	(n=172)	(n=123)
Qn25. Number of active enrollees	2.3	17.9
Qn31. Purchased from underwriter or self-insured	5.8	12.2
Premiums for Self-Insured Plans		
Qn32. Whether calculates premium equivalent	11.1	22.9
Qn33. Premium equivalent for single coverage	16.7	17.0
Qn34. COBRA for single coverage (asked if employer self-insuring plan did not calculate premium equivalent)[c]	33.3	70.0
Qn35. Full-time employee's premium contribution for single coverage	9.9	25.0
Qn37. Increase or decrease in premium since last plan year	6.5	6.0
Qn38. Plan offered family coverage	3.7	18.2
Qn39. Premium equivalent for family coverage for two adults and two children	15.3	8.1
Qn40. COBRA for family coverage for two adults and two children (asked if employer self-insuring plan did not calculate premium equivalent)[c]	35.2	40.0
Qn41. Full-time employee's premium contribution for family coverage	12.5	13.0
Premiums for Plans Purchased from Underwriter		
Qn42. Total premium for single coverage	6.6	9.7
Qn43. Employee's share for single coverage	6.6	8.1
Qn45. Increase or decrease in premium for family coverage since last plan year	4.7	14.2
Qn47. Total premium for family coverage	6.7	9.8
Qn48. Employee's share for family coverage	6.7	9.8

Topic and Question[a]	Percentage not Responding (if More than Five Percent)[b]	
Deductibles		
Qn49. Deductible for in-network services	2.9	10.6
Qn50. Annual deductible for single coverage (for in-network services)	6.3	2.2
Qn52. Is out-of-network deductible applied toward in-network deductible?	15.8	28.0
Qn53. Annual deductible for family coverage (for in-network services)	9.8	7.7
Qn54. Annual deductible for family coverage (for out-of-network services)	5.4	8.0
Qn55. Pay share of cost after deductible	1.1	11.4
Co-Payments and Co-Insurance for Physician and Hospital Services		
Qn59. Whether co-payment or co-insurance rate for out-of-network PCP visits	5.6	7.1
Qn60. Co-payment rate for out-of-network PCP visit [c]	17.4	NA [c]
Qn62. Whether pays share of in-network hospital visit after meeting deductible	6.4	13.0
Qn63. Whether pays set amount per stay, set amount per day, or percentage of charges for hospital visit	9.5	NA[c]
Qn64. Amount per in-patient hospital stay [c]	16.7	0
Qn65. Amount per day for in-patient stay [c]	42.9	0
Qn66. Maximum of number of days for in-patient hospital stay [c]	42.9	0
Qn67. Percentage of charges for in-patient hospital stay	7.1	NA [c]
Qn68. Whether pays different amount for hospital stays in out-of-network hospitals	8.3	1.4
Annual Limits for Hospital services		
Qn74. Does plan limit amount it will cover for in-patient hospital stays during a plan year?	10.0	22.8
Qn75. Maximum amount plan will cover for in-network in-patient stays during a plan year [c]	38.5	50.0
Qn76. Maximum amount plan will cover for out-of-network in-patient stays during a plan year[c]	45.0	40.0
Prescription Drug Coverage		
Qn77. Provides prescription drug benefit	1.2	9.8
Qn80. Number of tiers for drug purchases	7.1	2.8
Qn86. Does plan limit the annual amount it will pay in prescription benefits?	5.6	9.5
Covered Services		
Qn88a. Out-patient mental health	7.0	10.6
Qn88b. In-patient mental health	5.2	12.2
Qn88c. Alcohol and substance abuse treatment	7.6	13.8
Qn88d. Routine dental care	1.7	9.8
Qn88e. Routine orthodontic care	2.3	10.6
Qn88f. Vision care	1.7	10.6
Catastrophic Limits		
Qn89. Maximum out-of-pocket expense for active employee with individual coverage	21.5	35.0
Qn90. Maximum out-of-pocket expense for active employee with family coverage [c]	100.0	70.6

[a] Question numbers are those used on the CATI instrument (Appendix F).

[b] This column displays items with responses of don't know, refusal, or missing for more than five percent of the samples asked the questions; for plan-level questions, item nonresponse rates for both the CATI and Web versions are shown if item nonresponse was greater than five percent for either version.

[c] Questions based on fewer than 30 observations are noted.

[d] Unable to differentiate legitimate skip fromnonresponse.

e. Health Insurance Plan Matches Between the Pilot Household and Employer Surveys

To analyze employees' choice of health plans, the plan reported by a Household Survey respondent must be matched to one of the plans offered by the establishment employing that respondent. Of the 231 establishments reporting one or more health plans, 150 were linked to employees who took up health insurance offers from their employers and who reported a plan name; 68 were not linked because the employees did not take up the employer offers, and 13 took up offers but refused to provide the name of their health insurance plans.[20,21] Of the 150 establishments for which it was possible to attempt to match plans and Household Survey respondents, 80 offered one plan and 70 more than one (Table III.5).

The Employer Survey plan inventory obtained insurer and plan names for all offered plans. If the establishment was linked to an employee who took up health insurance, the Employer Survey included the name of the insurer and plan obtained in the household pilot. If more than one employee had health insurance through an establishment, we listed the insurer and plan for the first employee. (For a full-scale followback survey, we would have attempted to match plans for additional employees.) Prior to being entered into the Employer Survey, the Household

[20]The fraction that did not take up employers' offers seems high, but it may have resulted from the decision to exclude large, private employers and state and federal employers from the CATI/Web survey.

[21]A few employers in the CATI/Web survey were linked to more than one employee. In these cases, we attempted to match the plan only for the first household survey respondent completing a pilot interview to his or her employer.

Survey pilot insurer and plan names were edited for spelling and other obvious errors by comparing them against an insurer and insurance plan database. Plan matches between the Employer Survey and Household Survey were made in one of three ways:

1. The Employer Survey interviewer was able to match the plan name or the insurer name to the plan or insurer name reported on the Household Survey without probing.
2. The Employer Survey interviewer was able to match the plan or insurer name reported on the Household Survey to one of the plans offered by the establishment only after reading the insurer and plan to the employer and probing to verify that it was one of the offered plans (see Qn11-12 of the CATI program in Appendix F).
3. The employer offered only one plan at the establishment and it was not matched to the Household Survey plan after probing, but the establishment had offered the same plan for the last two plan years.

Based on these criteria, the match rate was 89 percent for single-plan establishments, was 70 percent for establishments offering two or more plans, and was 80 percent for all establishments. Approximately the same number of matches were made with interviewer probing (51 matches) and without interviewer probing (54), indicating that the plan names used by Household Survey respondents often do not match those provided by employers' benefits personnel without review and clarification.

TABLE III.5

HEALTH INSURANCE PLAN MATCH BETWEEN HOUSEHOLD AND EMLOYER PILOT SURVEYS, BY NUMBER OF PLANS
(Numbers)

Match Between Household and Employer Surveys[a]	Number of Offered Plans: One	Number of Offered Plans: Two or More	Total
1. Match Based on Plan Name Reported in the Household Survey without Probing [b]	28	26	54
2. Match to Household Survey Plan Required Probing with Establishment Respondent [c]	28	23	51
3. No match but Establishment Offered Only One Plan; Plan not Changed for Current Plan Year	15	NA	15
4. No Plan Match Between Household Survey and Establishment	9	21	30
Total	**80**	**70**	**150**
Match rate (1+2+3/Total)	**89%**	**70%**	**80%**

[a]Excludes 68 establishments offering health plans that employees participating in the Household Survey did not take up, and 13 establishments offering health plans in which employees were enrolled but for which the Household Survey respondents were unable to provide plan names.

[b]Match without probing: The Employer Survey interviewer was able to match the plan or insurer name to the plan or insurer name reported in the Household Survey without probing.

[c]Match with probing: The Employer Survey interviewer was able to match the plan or insurer name reported on the Household Survey to one of the plans offered by the employer at the establishment only after reading the insurer and plan to the employer and probing to verify that it was one of the offered plans (see Qn11-12 of the CATI program in Appendix F).

f. Reported Versus Constructed Health Insurance Product Line

By convention, researchers categorize health insurance plans by product line—HMO, POS plans, PPOs, and traditional indemnity plans. We were interested in using these categorizations for CTS research. However, we were concerned that self-reported product lines might be incorrect, and that product line designations may have become blurred as managed care products, particularly HMOs, have evolved. For each plan included in the pilot survey, we asked

respondents to report the product line (Qn.10), and to answer three questions (Qn.26,27, and 29) that could be used to construct product line. These questions are shown below:

Reported Product Line

10. Is this a health maintenance organization (HMO), a point-of-service plan (POS), a preferred provider organization (PPO), or a traditional indemnity health plan?

(INTERVIEWER NOTE: If asked, use the following definitions)

Health maintenance organizations (HMOS and EPOs). These are plans in which enrollees may obtain care only from a specified list of providers. Enrollees must get a referral from a primary care physician, or gatekeeper, before using specialists. No benefits are available outside of the network. Exclusive provider organizations, or EPOs are also included.

Point of service (POS) plans. These plans have a physician and hospital network, but enrollees have the option of seeking care outside the network at reduced coverage levels. Enrollees must get a referral from a primary care physician, or gatekeeper, before using specialists.

Preferred provider organizations (PPO). These plans have a physician and hospital network. Enrollees may see any provider in the network, including specialists, without a referral from a primary care physician. Enrollees pay less when they use providers in the network but are covered for care received outside the network.

Traditional indemnity plans. This is a plan with no list of physicians or hospitals and no restrictions on patient choice of physicians or hospitals.

1 Health maintenance organizations (HMOs and EPOs)
2 Point of service (POS)
3 Preferred provider organization (PPO)
4 Traditional indemnity
5 (DK)
6 (Refused)

Constructed Product Line

26. Does this plan **(Display A-I, as appropriate)** include a network of health care providers?

1 Yes (Continue)
2 No **(**Skip to #30)
3 DK (Skip to #30)
4 Refused (Skip to #30)

27. **(If code 1 in #26 A-I, ask:)** Are enrollees required to get a referral from a primary care physician, or gatekeeper, before using specialists?

1 Yes
2 No
3 Sometimes
4 DK
5 Refused

29. When an enrollee visits a physician who is not in the network, must he or she pay the full cost of that visit?

1 Yes
2 No
3 DK

We constructed product lines from Questions 26, 27, and 29, as follows:

- ***HMO:*** network (Q26=1), gatekeeper requirement (Q27=1), and no out-of-network coverage (Q29=1)
- ***POS:*** network, gatekeeper requirement, and out-of-network coverage
- ***PPO:*** network, no gatekeeper requirement, and out-of-network coverage
- ***Indemnity:*** no network

Reported and constructed versions of product line are not very consistent (see Table III.6). Of 70 reported HMOs for which the respondents completed a CATI or Web survey, only 33 (47 percent) were categorized as HMOs based on product attributes (network, gatekeeper requirement, and no out-of-network coverage). Similarly, only 12 of 32 (38 percent) reported POS plans were described as having a network, gatekeeper requirement, and out-of-network coverage. Consistency increases if reported HMO and POS products are combined into a single product line and are compared with a constructed product line defined as having a network and gatekeeper requirement (ignoring the out-of-network question and cases with missing data). Seventy-two percent of reported HMO or POS products (63 of 87 products) have a network and a gatekeeper requirement.

Reported and constructed PPO products are somewhat more consistent than are HMO or POS products. Of 164 reported PPO products for which CATI or Web interviews were completed, 110 (67 percent) were categorized as having a network, no gatekeeper requirement, and out-of-network coverage. If the cases with some missing data are excluded and the out-of-network question is ignored, then 83 percent of the PPO products have a network and no gatekeeper requirement.

Respondents also had difficulty correctly defining traditional indemnity products. Only 6 of the 18 reported indemnity products (33 percent) were described as not having a network. Excluding indemnity plans with missing data on product attributes improves the consistency rate to only 42 percent (6 out of 14).

TABLE III.6

REPORTED VERSUS CONSTRUCTED PRODUCT LINE
(Numbers)

Constructed Product Line	Total	Reported Product Line [a]			
		HMO	POS	PPO	Indemnity
HMO—Network, Gatekeeper Requirement, no Out-of-Network Coverage	39	33	2	3	1
POS—Network, Gatekeeper Requirement, Out-of-Network Coverage	46	11	12	22	1
Possible HMO or POS—Network, Sometimes Requires Gatekeeper, May or May not Offer Out-of-Network Coverage	5	2	3	0	
PPO—Network, no Gatekeeper Requirement, Out-of-Network Coverage	130	5	9	110	6
Possible POS or PPO—Network, no Gatekeeper Requirement, No Out-of-Network Coverage	30	5	4	21	
Indemnity—No Network	9	1	0	2	6
Insufficient Information—Missing Values on Product Attributes	25	13	2	6	4
Subtotal	**284**	**70**	**32**	**164**	**18**
CATI or Web Interview for Reported Product not Completed	135	40	24	54	17
Total	**419**	**110**	**56**	**218**	**35**

[a] Reported product line was missing for 16 plans.

HMO = health maintenance organization; PPO = preferred provider organization; POS = point-of-service plan.

Research has shown that many consumers are unable to categorize health plans to accurately describe their attributes (see, for example, Cunningham 2001; and Nelson 2000). Comparison of reported product line with constructed product line indicates that employers also have difficulty categorizing heath plans or understanding attributes, and that the evolution toward looser HMO products with fewer restrictions on gatekeeping and more provider choice may have increased the difficulty of this task. For example, 22 respondents said that PPO plans had a gatekeeper requirement (Qn27). Some have may have answered this way because they confused prior authorization with a gatekeeper requirement. Others may have confused the acronyms PPO and POS, although definitions were provided. Increasing flexibility by HMOs that cover some out-of-network visits also may have resulted in respondents saying that HMO plans provide out-of-

network coverage (Qn29). Some respondents may simply have little knowledge of the attributes of health plans offered by their companies or may not have been very attentive during the interview.

g. Summary

Fewer than 40 percent of the respondents for establishments in the CATI/Web survey completed interviews even when offered monetary incentives. Because respondents for establishments offering two or more plans were given the option of completing plan-level questions on the Web, and because only half of these respondents ever completed the Web survey, data were obtained for only 68 percent of the health plans offered by establishments whose respondents agreed to be interviewed. Item nonresponse rates also were high for many questions, further reducing the useable sample. However, the plan match rate between the household and establishment surveys was fairly high—80 percent.

2. Large, Private, Multi-Site Employers

A total of 16 private, multi-site employers were contacted at their headquarters locations by two researchers, but only 5 (31 percent) responded, which is approximately the same response rate as in the CATI/Web survey. Senior personnel in human resources were contacted in all cases; nonresponses resulted from corporate policies against participating in surveys (three employers); unwillingness to allocate time to a telephone interview, but willingness to consider review of a mail questionnaire (three employers); and difficulty scheduling calls with an appropriate respondent (five employers). The distribution of responses, by type of industry, is shown below in Table III.7

Because we needed to review procedures to obtain data from multiple sites, a telephone interview was essential. Although the calls were scheduled over several weeks, their timing

coincided with January health plan and personnel reviews. Consequently, some of the firms for which we had difficulty scheduling calls might have responded had the survey field period continued for another month. Therefore, our assessment of multi-site employers depends on information provided by five large retailers, whose experience may differ from the experiences of multi-site employers in other industries.

TABLE III.7

DISPOSITION OF INTERVIEWS WITH PRIVATE, MULTI-SITE EMPLOYERS
(Numbers)

Type of Industry	Completed	Not Completed	Total
Retail	5	2	7
Manufacturing/Computer Services	0	4	4
Telecommunications	0	1	1
Health Insurance	0	1	1
Transportation	0	1	1
Hotel Chains	0	2	2
Total	**5**	**11**	**16**

a. Findings from the Multi-Site Employer Protocol

The interviews were conducted using the multi-site employer protocol (Appendix H); key findings are summarized here.

Section A—Firm. Respondents were able to answer questions about firm characteristics, flexible benefits, and plan offerings without difficulty.

Section B—Establishment Characteristics. Although data on demographic distributions for individual establishments generally were available from corporate headquarters, respondents were not willing to spend time locating and abstracting them. These data were available from local sites, but corporate staff indicated that local human resources staff might be reluctant to provide the information. We inferred that corporate headquarters would generally have to be contacted to obtain permission to call local sites to obtain data about establishment characteristics. This approach was used for the EHIS Survey (discussed above); in that case, the researchers found participation by individual sites to be fairly high when headquarters permission was obtained.

Section C—Plan Data. Two of the first three respondents preferred to see the survey questions before agreeing to provide information about offered plans; based on this experience, we decided to fax the questions to subsequent respondents before beginning the interview.

Respondents were able to easily provide firm-level information as well data on nationwide PPO plans. Two of the five respondent firms offered single PPOs, two offered two PPOs each, and one offered three PPOs. Respondents for three of the firms indicated that the deductibles among the offered PPO plans varied, but they were able to provide this information and could have linked it to establishments. (Headquarters respondents for the 1997 EHIS establishments with multiple sites also were able to provide information on their PPO plans.) Only one respondent estimated the percentage of the total enrollment represented by the firm's PPO, which was offered only to managers.

Premiums and cost sharing typically vary by market for HMO, EPO, and POS plans, and benefits staff were unwilling to obtain data for large numbers of establishments. One of the five firms did not offer an HMO, and one offered an EPO plan; the three others offered 100, 40 to 45, and 20 or 21 HMO plans, respectively. One respondent said that the HMO plans offered by his firm were very similar across markets, that he could provide data on the dominant plan (similar to the MEPS-IC approach discussed previously), but that he would not provide information about each one. None of the responding benefits managers were willing to provide access to Web sites or data files containing plan data. Some were willing to provide access to local benefits personnel who could provide this information, but they said that compliance from these local respondents would vary by establishment. A few respondents suggested that we ask for plan lists and obtain plan data from their insurers. Had we done so, however, we would not have been able to obtain data on premiums, premium contributions, or copayments and deductibles, which vary by employer.

One respondent suggested we obtain plan data filed by employers with the U.S. Department of Labor. Sponsors of welfare benefit plans are required to file a 5500 series form and schedules for each plan (including health plans) that they sponsor; these forms are maintained by the Employee Benefits Security Administration (EBSA). Schedule A includes the type of contract and premiums for experienced and non-experienced rate contracts. However, personnel responsible for maintaining these files indicated that the quality of the data has been variable during the last few years, and there is a two and one-half year lag between data collection and release of the data.[22]

Respondents for the five firms provided information on their PPO plans and a few HMO plans, using a variety of methods, including mailing plan booklets, copying relevant pages from plan booklets, and completing telephone interviews. Review of the plan data revealed additional problems. One company offered a POS plan whose cost sharing varied by employee type—managers, shift supervisors, and crew—rather than by market. In that case, to match a plan with an enrollee, it would have been necessary to collect additional information from the Household Survey respondent about the employee's occupation. Another firm franchised some but not all locations, and health plans were offered to direct employees but not to franchisees. In that case, to determine whether a plan match could be made, it would have been necessary to collect information from employees included in the Household Survey on whether or not their employers were franchised. Other employers noted that different plans were offered to unionized and non-unionized employees, which would have required obtaining information on union status (as is done on the current CTS Household Survey). One company offered a choice of three separately administered prescription plans for PPO plan enrollees. Only the survey

[22]Information was based on a discussion with MPR's project director responsible for

respondent or a benefits manager having access to an employee ID would be able to link the prescription benefit to the enrollee. One plan described as a PPO had different options with varying deductible levels, some of which did not offer any out-of-network coverage. Because the plan was described as a single product, it would not have been possible to determine which deductible level an employee had selected.

We did not attempt to match plans reported by Household Survey respondents with the large, private, multi-site employers. We did not attempt this match because we had obtained information only on nationwide PPO plans and on a few HMOs for five firms in one industry.

b. Incentive

The offer of a $100 honorarium to human resources personnel responding for the five large retail chains was ineffective. Most of the respondents indicated that company policy prohibited them from accepting payment for participation in surveys.

c. Summary

We concluded that obtaining establishment-level information from large, private, multi-site firms would be difficult. A majority of corporate headquarters were reluctant to respond, and monetary incentives were ineffective. Respondents' firms were limited to retailers, so we have no information about how other large, private employers would have responded. We could obtain information from responding firms about PPO and some HMO plans (if only one or two plans were offered), but we would have to contact local establishments to obtain information about most HMO plans and demographic characteristics. Respondents for the firms in the pilot were somewhat skeptical about the willingness of local staff to provide this information.

(continued)
maintaining the EBSA files.

3. State Plans

a. Availability of Plan Data from State Web Sites

In contrast to the low response rate and various problems obtaining health plan data from private employers, very few calls were needed to contact appropriate state benefits personnel in the three states included in the pilot (New Jersey, Ohio, and South Carolina). One survey researcher fielded the state employer protocol (see Appendix I), which included a question on whether health plan data were available from secondary data sources. All three states provided URLs for publicly accessible Web sites, and the survey researcher was able to obtain almost all of the necessary data. All respondents provided their direct telephone numbers and urged the interviewer to call back to obtain any missing information.

The level of effort to obtain data on health insurance plans offered to state employees was minimal because the Web sites were current, fairly easy to navigate, and contained complete information. With a few exceptions, required health plan data elements (premiums, premium contributions, cost sharing, and benefits) were available on the main Web site for all offered plans. For one of the three states, it was necessary to access linked Web sites to obtain information about insurance products offered by each insurer. The survey researcher was able to abstract the employer data for the three states in about two days. Only the following items were unavailable from the Web sites that were investigated:

- Whether out-of-network deductibles are applied to in-network deductibles, or whether the two have to be met separately. (This information may be available in plan booklets, from state benefits staff, or from other Web sites that we did not identify during our search.)
- Comparisons with the previous plan year for changes in premium (two states)
- Which products were added or dropped during the previous plan year

Some local and municipal employees in two of the states were eligible for state health plans; in the third, non-state employees were ineligible. In one state, counties and boards of education had the option of participating in state plans; however, participation has changed frequently, so a list provided at the beginning of the Household Survey would become dated. In addition, the CTS Household Survey includes the county of residence rather than the county of employment, so we would have to ask respondents whether they were covered by state plans in order to link them to the plans listed on the Web site. The respondent for that state informed us that state coverage is identified on enrollees' insurance cards. Assuming other states follow this policy, Household Survey respondents could provide this information from their insurance cards.

The Web site for the other state that covered county and municipal workers indicated that all employees of state agencies, public colleges and universities, and public school districts were covered. Optional participants in the state health insurance program included counties; municipalities; regional tourism promotional commissions; county disability and special needs boards; regional government councils; regional transportation authorities; alcohol and drug abuse planning agencies; county councils on aging or other governmental agencies providing aging services; community action agencies; and special purpose districts providing gas, water, sewer, and recreation. Here, too, we would have to ask Household Survey respondents employed by local governments whether they were covered by state plans (or would have to ask them to check their insurance cards) in order to link these respondents to plans listed on the state Web site.

b. Health Insurance Plan Matches Between the Pilot Household Survey and State Web Sites

In the pilot Household Survey, a total of 61 employees with private health insurance named state employers. Of the 61, 10 did not provide plan names, 1 reported an out-of-state plan, and 6

were employed by organizations that were not covered by state plans (based on review of information provided by state benefits staff). We were able to match the plans reported in the Household Survey to a plan listed on the Web sites for 34 of the remaining 44 (77 percent), to match insurers but not insurance plans for 7 of the 44 (16 percent), and could not match 3 (7 percent; see Table III.8).

These results were very encouraging, as it is likely we could have obtained a plan match for some of the 10 matched to insurers or not matched at all by calling back the Household Survey respondents and presenting them with a list of the state plans. This procedure was not used on the pilot but could be used in a production survey to increase the match rate.

TABLE III.8

HEALTH INSURANCE PLAN MATHCES BETWEEN THE HOUSEHOLD PILOT SURVEY AND STATE WEB SITES

Results	State			Total
	New Jersey	Ohio	South Carolina	
Plan Match	12	11	11	34
Insurer Match but no Plan Match	7			7
No Match	1	1	1	3
Subtotal	**20**	**12**	**12**	**44**
No Plan Reported in the Household Survey	5	3	2	10
Covered by Out-of-State Plan	1			1
University/State Highway Patrol Employee not Covered by State Health Plan		5	1	6
Total	**26**	**20**	**15**	**61**

c. Summary

Benefits staff for the three pilot states provided access to Web sites from which we were easily able to obtain nearly all of the information included in the protocol for offered plans. Moreover, we were able to match most of the insurers and insurance plans reported on the pilot Household Survey with those listed on the Web sites, and, on a full-scale household survey, should be able to obtain most of the missing plans through data retrieval efforts.

We also asked AHRQ staff whether the MEPS-IC has been obtaining state health plan data from Web sites. We were told that, although the Census Bureau, which conducts the survey, does not maintain a list of Web sites for all states, many states have been providing Web sites that contain links to plan data. We were encouraged by this response, which suggests that health plan data could be linked to most state employees.

4. Federal Plans

We reviewed data elements on federal health plans from the FEHBP Web sites and concluded that we could obtain the plan data we needed. Because postal workers are offered different plans than are other federal workers, the Round 4 Household Survey included a question about whether or not a federal employee was a postal worker. Some other categories of federal employees are offered different health plans, but the numbers are too small to be a concern for the survey.

IV. SUMMARY OF RESPONSE RATES, ABILITY TO MEET ANALYTIC GOALS, AND RECOMMENDATIONS

The unique contribution of the Employer Followback Survey was to permit analyses of employer-sponsored health insurance (ESI) that considered all plan offerings, including those offered by employers of both spouses in dual wage earner families. Planned analyses included understanding the determinants of plan choice; the relationship of benefits and cost sharing to access, satisfaction, and utilization; how workers choose between firms that offer and do not offer health insurance; and comparisons of employer-sponsored premiums with those purchased directly.

Some of these analyses could be conducted with information about plans offered to individual workers, but many required data about plans offered by the employers of both spouses. We conducted the Employer Followback Survey pilot to determine whether we could generate sufficient samples to achieve our objectives. In the following sections, we discuss expected response rates and samples sizes for a full-scale survey, which we determined would be insufficient to support most proposed analyses, and conclude by discussing options for future followback surveys.

A. RESPONSE RATES

Sample sizes for followback analyses depend on the number of employed individuals in the CTS Household Survey and the product of the various components of the response rate: locating an employer respondent for sampled establishments, obtaining the establishments' participation, obtaining data on all offered plans, obtaining data on critical data items (we use premiums), and matching plans between the Household Survey and the Employer Survey. In the following sections, we use the results of the pilot survey to estimate response rates for these components

for private, federal, state, and local establishments (see Table IV.1). The assumptions for these estimates are discussed in the rest of this section.

TABLE IV.1

ESTIMATED EMPLOYER FOLLOWBACK RESPONSE RATE, BY TYPE OF EMPLOYER
(Percentages)

Type of Employer	Employer Located	Establishment Participates	Plan Data Obtained	Item Response (Premiums)	Plan Match Rate	Overall Response Rate [a]
Private	85	40	70	85	80	16
Federal Government	100	100	100	100	80	80
State Government	100	75	100	100	80	60
Local Government	100	58	85	93	80	37

[a] The overall response rate is the product of the response rates for employer located, establishment participates, plan data obtained, item response (premiums), and plan match rate.

Locating an Employer Respondent for Sampled Establishments. Based on results from the pilot Household Survey, we have assumed that we will be able to locate addresses for personnel familiar with health insurance benefits for approximately 85 percent of private employers. Although the individuals named during tracing were not necessarily the correct respondents (because of staff changes or errors made during tracing), most of the addresses were correct. In any event, the response rate for establishment participation (discussed below) captures additional nonresponse during efforts to obtain establishment interviews. We were able to locate federal health insurance data on the Federal Employees Health Benefits Plan (FEHBP) Web site, identify health benefits contacts for all states,[23] and locate local government respondents without difficulty, so we have assumed 100 percent location for government establishments.

[23] Although we contacted only three health benefits managers for the pilot survey, we obtained contacts for all states and the District of Columbia.

Obtaining Establishment Participation. Based on the poor results for the Web option, we recommend that the establishment survey for private employers be conducted entirely with computer-assisted telephone interviewing (CATI). Assuming a fixed promised incentive, about one-third of establishments should complete a full survey if the pilot survey conditions were replicated. However, a longer field period spread throughout the calendar year should somewhat increase the response rate to a CATI survey, so we have assumed a response rate of 40 percent. Large, multi-site employers responded at about the same rate as did establishments included in the CATI survey, and they should respond at a higher rate to an extended field period as well, so we have assumed approximately the same response rate for all private establishments.

Participation should be higher for government employers than for private ones. Data for federal plans are available on the FEHBP Web site, so we will assume that the information will be available for all federal employees. In addition, the three states in the pilot survey provided access to Web sites that were as comprehensive as was the FEHBP's Web site. A preliminary review of other states indicated that many, but not all, would make similar data available on their Web sites. Without further information, we will assume that half the states would offer access to plan data on Web sites, and that half the remaining states would participate in surveys or would provide plan booklets or other data sources, for a response rate of 75 percent. Some states cover categories of county and municipal workers under their plans, which would increase participation by local-government employers. We have assumed that participation by local government employers would be about halfway between that of the private sector and state government (58 percent).

Obtaining Plan Data for Participating Establishments. For the pilot CATI/Web survey, we obtained data for only 68 percent of the plans offered by private and local government establishments completing the plan inventory, with the Web version accounting for all of this

source of nonresponse. However, few respondents for establishments offering two or more plans completed the CATI version of the survey, so we do not know how respondents for multi-plan establishments that chose the Web option would have responded if they had been forced to complete a CATI survey. It is possible that respondents who did not complete the Web survey would have been unwilling to provide plan-level information for a CATI survey. Without information about how these respondents would have behaved, we will assume that we would obtain data for 70 percent of the plans offered by respondents for single-site, private-sector establishments agreeing to participate in the survey.

Because we obtained responses from only five private multi-site firms (all of which were retailers), we have very little information to infer how large firms in other industries would have responded. For the five retailers, we were able to obtain data on nationwide preferred provider organization plans, and we were informed that we could have contacted local establishments for health maintenance organization plans and demographic distributions, but respondents were uncertain whether local staff would provide the data. Because we have relatively little information about these firms, we will assume that we would obtain the same percentage of plans for private, multi-site establishments as for private, single-site establishments.

We should be able to obtain data on all plans for participating state and federal establishments, either from Web sites or plan booklets, and from local government employers offering state plans. Local governments participating in the CATI survey are more likely to respond like private-sector employers and may not provide data on all offered plans. We have assumed that we will obtain information on 85 percent of the plans offered by participating local government employers (averaging private and state government estimates).

Item Response Rates. As we have shown, item response rates were highly variable, with the lowest rates occurring for establishment characteristics. As a component of the overall

response rate, we are using item response rates for premiums because premiums are the most important variable for the proposed analyses. Item response rates for premiums purchased through underwriters approached 95 percent and varied from 80 to 90 percent for self-insured firms asked to provide premium equivalents or COBRA premiums. Overall, we conservatively have estimated 85 percent item response rates for private-sector premiums, and 100 percent response rates for state and federal employers providing data through Web sites or other sources. We will assume that, if premiums are not available on Web sites, respondents for state governments will not view this variable as confidential. Item response rates for local government were assumed to be an average of state and private rates (93 percent).

Plan Match Rate. We were able to match 80 percent of plans between the pilot Household and Employer CATI/Web surveys, and to match 77 percent of plans between the pilot Household Survey and state Web sites. Although it might be possible to increase these rates by making follow-up calls to Household Survey respondents who provide incomplete plan information, we will assume an 80 percent match rate here and will apply the same rate to all types of employers.

Overall Employer Followback Response Rate. The overall Employer Followback Survey response rate (that is, the percentage of workers for whom we will have premium data) is the product of the five rates described in this section and varies by sector, as follows: 80 percent for federal employees, 60 percent for state employees, 37 percent for local government employees, and 16 percent for private-sector employees.

B. ESTIMATED SAMPLE SIZES FOR PLANNED ANALYSES

For behavioral analyses requiring employer data for individual workers (no information from the spouse's employer would be needed), estimated sample sizes in Table IV.2 may be acceptable. This table applies the overall response rates in Table IV.1 to the number of workers in the CTS Round 3 60-site sample, by type of employer. We used the Round 3 CTS 60-site

sample to simulate expected sample sizes because the size and labor force distributions of the Round 4 sample were expected to be similar to the distributions in Round 3. Based on these assumptions, we estimated that we would have plan data for 5,676 workers in the 60-site sample (3,119 workers in the private sector, and 2,557 workers in the public sector), which is sufficient sample for the planned analyses of individual workers.

TABLE IV.2

EXPECTED SAMPLE SIZES FOR ANALYSIS OF WORKERS OFFERED EMPLOYER-SPONSORED HEALTH INSURANCE, BY TYPE OF EMPLOYER
(Numbers)

	Workers	
Type of Employer	Round 3 CTS HH Survey 60-Site Sample [a]	Estimated Sample for Followback Analysis [b]
Private Company	19,492	3,119
Federal Government	811	649
State Government	2,043	1,226
Local government	1,843	682
Self-Employed	3,085	0
Family Business or Farm	189	0
Total	**27,463**	**5,676**

[a] Includes workers in Census families with at least one non-elderly adult worker offered employer-sponsored health insurance.

[b] Estimated sample sizes for analyses of individual workers, applying overall response rates from Table IV.1. People who were self-employed or who owned a family business or farm were excluded from Employer Followback analyses.

However, many of the most important proposed analyses require information on both spouses in dual wage earner families in which at least one member is offered ESI; within these families, there is particular interest in low-wage earners who typically have fewer health insurance choices. To estimate sample sizes for these analyses, we apply the followback response rates described in Section A to samples of families in the Round 3 CTS Household Survey 60-site sample that have at least one non-elderly adult worker offered ESI, categorized by income level, whether single or dual wage earner, and whether government or private sector (see Table IV.3). We group workers within the Census family rather than within the CTS family insurance unit (FIU) because Census families are more likely to be used in analyses.[24]

Unfortunately, the low multiplicative response rate for private-sector workers, coupled with additional CTS Household Survey missing values for family formation and income, yields insufficient samples, particularly for analyses involving dual wage earners and workers in low-income households. Of an expected sample of 1,432 Census families with private-sector or government employees and with family income that is less than 150 percent of poverty, we expect to generate a sample of only 289 families for followback analyses. The figure increases to 466 out of 2,394 families if we expand the sample to include families reporting income that is less than 200 percent of poverty.

Sample sizes are larger for families reporting income that is greater than 200 percent of poverty (2,633 out of 14,880). However, multiplicative nonresponse also severely limits the number of dual wage earner families reporting family income that is more than 200 percent of poverty (298 completed observations out of 4,688 families in this subgroup). Nonresponse is a

[24]A Census family includes people living in a dwelling who are related to the householder by blood or marriage, whereas the CTS FIU reflects family groupings typically used by

particular problem for dual wage-earner families, because the probabilities of locating and obtaining complete information from employers for the two employed family members are independent of each other. For example, there are 3,031 families with two private-sector wage earners reporting family income that is more than 200 percent of poverty. Because the probability of obtaining complete followback data is only 0.16 for each wage earner, the dual probability is only 0.0256, resulting in an estimate of only 78 families with complete data. Based on the small sample sizes available for the proposed analyses involving dual wage earners and low-income families and the differentially higher nonresponse rate for establishments offering two or more plans, we decided against conducting an employer followback for the Round 4 Household Survey.

(continued)
insurance carriers. The CTS FIU includes an adult family member, his or her spouse, and any dependent children 17 years of age or younger or 18 to 22 years of age if a full-time student.

TABLE IV.3

EXPECTED SAMPLE SIZES FOR ANALYSIS OF EMPLOYER-SPONSORED HEALTH INSURANCE OFFERED TO FAMILIES, BY FAMILY INCOME AND TYPE OF EMPLOYER
(Numbers)

Census Family Income	Round 3 60-Site Sample Size [a]	Estimated Sample Size for Followback Analysis [b]
Census Family Reporting Income <150 Percent of Poverty		
One private-sector wage earner offered ESI	973	156
One government-sector wage earner offered ESI	221	119
Two private-sector wage earners offered ESI	176	5
Private- and government-sector wage earners both offered ESI	45	4
Two government-sector wage earners offered ESI	17	5
Subtotal	**1,432**	**289**
Census Family Reporting Income >150 Percent of Poverty and <200 Percent of Poverty		
One private-sector wage earner offered ESI	601	96
One government-sector wage earner offered ESI	129	70
Two private-sector wage earners offered ESI	164	4
Private- and government-sector wage earners both offered ESI	62	5
Two government-sector wage earners offered ESI	6	2
Subtotal	**962**	**177**
Census Family Reporting Income >200 Percent of Poverty		
One private-sector wage earner offered ESI	6,162	986
One government-sector wage earner offered ESI	1,636	883
Two private-sector wage earners offered ESI	3,031	78
Private- and government-sector wage earners both offered ESI	1,279	110
Two government-sector wage earners offered ESI	378	110
Subtotal	**12,486**	**2,167**
Total	**14,880**	**2,633**

[a] Includes Census families in the 60-site Household Survey sample with at least one non-elderly adult worker offered ESI; excludes families in which all workers reporting ESI were self-employed or owned a family business or farm, as these families are not included in the Employer Followback analysis.

[b] For privately employed workers, we assumed that 16 percent of the Round 3 60-site sample would have sufficient data for a followback analysis (see Table IV.1). For publicly employed workers, we used response rates in Table IV.1 weighted by the percentage of Round 3 non-elderly workers in the 60-site sample offered federal, state, and local government employment—0.80 (0.173) + 0.60 (0.435) + 0.37 (0.392) = 0.544 ~54 percent. For dual wage earner families, we assumed that completion of each of the two Employer Followback interviews was independent of the other.

C. OPTIONS FOR FUTURE EMPLOYER FOLLOWBACK SURVEYS

We were disappointed in the poor response rate by private-sector employers and the barriers to obtaining information on all offered plans, particularly for large, multi-site employers. We had been impressed by the improvement in recent years in the response rate to the employee establishment component of the Medical Panel Expenditures Survey, and we hoped that endorsements, incentives, and the Web option would partially compensate for the absence of government sponsorship and would result in response rates in the range of 40 to 50 percent for establishments providing a full inventory of plans. Although incentives increased participation, the impact was modest. We had hoped that the Web option would encourage participation by establishments offering a choice of plans to their employees, but this was not the case, and the result was a sample that underrepresented establishments offering two or more plans. Our response rate also may have suffered because the purpose of the Employer Followback Survey was to obtain information to be linked to a household file, rather than to report on employers themselves. Consequently, we could not offer a report that would be beneficial to employers, and that might have encouraged participation.

Nevertheless, we were encouraged by the completeness of the plan data available from Web sites for both state employers and federal employers. Information from FEHBP and the three states in the pilot survey was sufficient to meet our analytic objectives. A Web site followback is clearly feasible for federal and many state and local employees and is appropriate for some types of analyses (for example, the relationship of plan benefits to access, satisfaction, and utilization), but a dataset limited to government employees would not answer many of the questions that the proposed Employer Followback Survey was designed to answer.

An alternative to contacting private employers directly is to ask private-sector employees to provide copies of plan attributes available from company Intranets or Web sites, or from plan

booklets if electronic sources are not available. Because employees will have completed the Household Survey, it is likely that most will agree to an additional data collection request as long as the information is easily accessible. Preliminary data obtained from the CTS Round 4 Household Survey (based on the first 4,836 completed interviews) show that more than half (56 percent) of employees with ESI say that information about their health plans is available from a company Intranet or Web site that the policy holder can access from a computer. Nearly all (94 percent) say that that plan information is available from plan booklets.

Moreover, we have been successful in obtaining participation from respondents to previous surveys. For example, 74 percent of the Round 2 CTS random-digit-dialing sample selected for Round 3 completed interviews. Participation rates have been as high as 90 percent for calls to respondents with missing information who were contacted shortly after their interviews to retrieve the data.

Access to plan benefits, premium contributions, and cost sharing from Intranets or plan booklets would limit the essential information that employers would have to provide to premiums and establishment characteristics; however, item nonresponse in the pilot Employer Survey was very high on items about establishment demographic characteristics and wage rates.

A followback approach that obtained plan data from Web sites for most public employees, and that obtained these data from Intranets, Web sites, or plan booklets for a substantial number of private employees (and for public employees in states that do not have plan data available on Web sites), supplemented by data on premiums and establishment characteristics provided by the employers, could be tested for feasibility and cost. Feasibility issues include employees' willingness and ability to access and deliver plan data and completeness and consistency of available data items across firms. The comprehensiveness of information that private firms provide on Intranets and Web sites may vary considerably. Furthermore, some employees may

be uncomfortable accessing plan information from company Intranets. Even if employers were asked to provide data only on premiums, response rates for these key variables still may be unacceptably low.

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