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PHYSICIAN

PAYMENT REVIEW

COMMISSION

**ASSIGNMENT AND THE
PARTICIPATING PHYSICIAN PROGRAM:
An Analysis of Beneficiary
Awareness, Understanding, and Experience**



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BACKGROUND PAPER

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**ASSIGNMENT AND THE
PARTICIPATING PHYSICIAN PROGRAM:
An Analysis of Beneficiary
Awareness, Understanding, and Experience**

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The purpose of this Background Paper series is to make available materials prepared for use by the members of the Physician Payment Review Commission in making their recommendations to Congress. The papers published in this series are background analyses and do not contain Commission recommendations.

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EXECUTIVE SUMMARY

In 1988, the Physician Payment Review Commission (PPRC) contracted with Mathematica Policy Research, Inc. to conduct a survey of Medicare beneficiaries. The purpose of the survey was to provide information needed by the Commission in its consideration of options for reforming the Medicare physician payment system. Key findings from that survey are reported in the Commission's 1989 Report to Congress. This technical paper presents the survey methodology and analyses of survey findings in several key areas relating to beneficiaries' understanding of and experiences with Medicare insurance for physician services.

Since the inception of the Medicare program, physicians have been free to decide on a claim-by-claim basis whether to accept or reject assignment. When physicians accept assignment on a claim, they agree to accept the Medicare-allowed charge as payment-in-full, and the patient's cost sharing liability is limited to the Part B deductible and the 20 percent coinsurance amount. When assignment is not accepted, physicians may "balance bill" the patient -- i.e., charge an amount in excess of the Medicare-approved charge. In 1988, approximately 81 percent of all covered Part B charges were accepted on assignment, and the total balance billing liability on unassigned claims was about \$2.25 billion (PPRC, 1989).

The Health Care Financing Administration (HCFA) implemented the Medicare Participating Physician and Supplier Program (PAR) in late 1984. This program offers incentives to physicians to agree in advance to accept assignment on all claims for a one-year period. Approximately 41 percent of physicians who treat Medicare patients have signed participation agreements. By selecting PAR physicians, beneficiaries can be assured that their claims will be accepted on assignment. Annual directories identifying participating physicians are available to Medicare beneficiaries from the carriers and are available at Social Security offices and many senior citizen organizations.

In considering the issues of assignment and participation, the Commission found that there has been virtually no reliable, systematic research on the extent or distribution of balance billing among beneficiaries. No good information was available on the characteristics of beneficiaries who do and do not receive care on an assigned basis, on whether low income beneficiaries have adequate access to assigned care, or on the overall burden of balance billing on different categories of beneficiaries. There was also little information on beneficiaries' awareness and understanding of Medicare assignment and participation. The PPRC Survey was designed to produce information on these and related issues.

THE SURVEY

The PPRC Survey of Medicare Beneficiaries explored beneficiaries' awareness and understanding of assignment and the PAR program, understanding of Medicare benefit forms, reported assignment experience, financial barriers to care, and willingness to switch to a PAR physician. It also examined the extent of and the reasons for the "shoeboxing" phenomenon -- that is, beneficiaries paying bills themselves rather than filing claims.

Interviews for the PPRC Survey of Medicare Beneficiary data were conducted by telephone over a nine-week period beginning in late November, 1988. The sample was designed to be representative of all Medicare beneficiaries covered by both Part A and B who were not enrolled in a health maintenance organization (HMO) under a cost or risk contract with HCFA. A stratified sampling design was used to obtain sufficient numbers of respondents in key subgroups such as low-income beneficiaries, the "old-old" and minorities. Proxy respondents were used in cases where sample members could not participate in a telephone interview because of physical or cognitive impairment (usually a hearing impairment). The survey included, 1994 completed interviews, reflecting an overall response rate of 70 percent.

MAJOR FINDINGS

The PPRC Survey of Medicare Beneficiaries reveals some significant problems in elderly and disabled beneficiaries' understanding of and experiences with the Medicare program. Among the most important are:

- 1. Beneficiaries have a great deal of difficulty understanding the concepts underlying the Medicare physician payment system.**

Only 65 percent of surveyed beneficiaries reported having heard the term assignment, and fewer than half of all beneficiaries could adequately define the term. In addition, only 52 percent of respondents reported having heard of the Participating Physician Program, and only 25 percent understood that PAR physicians accept assignment on all claims. Knowledge levels varied significantly with the characteristics of the beneficiary; those who are most financially vulnerable to high medical bills -- e.g., low income beneficiaries and those without supplemental insurance -- are the least likely to understand assignment or the PAR program. Only 8 percent of survey respondents had ever seen a PAR directory, and less than 3 percent had used a PAR directory in locating a physician.

- 2. There is no clear evidence that physicians take beneficiary income into account when making decisions regarding balance billing.**

Sixty-five percent of those with incomes below the poverty level stated that they were generally treated on an assigned basis, compared to 54 percent with incomes greater than 300 percent of the poverty level. But while a higher percentage of low income beneficiaries reported receiving care on an assigned basis than did respondents with higher incomes, there was no statistically significant relationship between assignment and beneficiary income. The only factors found to have a significant relationship to assignment were geographic, with providers in the Northeast and in health manpower shortage areas (areas where many low-income beneficiaries reside) more likely to provide assigned care. There was no significant relationship between beneficiaries' health status and whether they generally received care on an assigned basis. Beneficiaries in poor health and without supplemental insurance appeared to be more likely than others to have been treated on assignment by specialists, but the rate of assignment by specialists did not vary significantly with patient income.

3. Some beneficiaries face financial barriers to receiving medical care.

Seven percent of the survey respondents (representative of over 2 million beneficiaries) reported that they had put off seeking care in the past year because of cost. Those most likely to have put off seeking medical care were more likely to be disabled, poor, black or Hispanic, in poor health, hospitalized in the last year, residents of the South, and to have only Medicare coverage (no supplemental insurance or Medicaid). Nineteen percent of those eligible for Medicare due to disability and 11 percent of those with incomes below the poverty level reported putting off care due to cost. Only 0.3 percent reported that they were denied care during the past year for financial reasons, and 4 percent of those eligible for both Medicare and Medicaid stated that they had difficulty finding a physician who would accept Medicaid patients.

4. Many beneficiaries are reticent to switch from their own physician in order to obtain care on an assigned basis.

Beneficiaries who reported that their current physician does not always accept assignment were questioned about their willingness to switch to a PAR physician. Thirty percent indicated that they would be potentially willing to switch from their regular source of care, and 34 percent would be potentially willing to switch from the most recent specialist seen. Beneficiaries more likely to be willing to switch from their regular source of care were blacks, males, beneficiaries entitled to Medicare due to disability, and those who had had a regular source of care for less than a year.

Low income beneficiaries were not more likely to be willing to switch from their regular source of care than more affluent beneficiaries. Among respondents below the poverty level who were not usually treated on assignment by their regular physician, only 32 percent indicated a potential willingness to switch to a PAR physician. While low income beneficiaries did appear more willing than others to switch from the most recent specialist seen, fewer than half of those below the poverty level reported that they would consider switching specialists. Thus, even among beneficiaries below the poverty level, there was a widespread reluctance to sever an existing relationship with a physician in order to avoid balance billing.

5. Some beneficiaries do not or can not file claims for Medicare insurance.

Nine percent of survey respondents reported that they had paid at least one medical bill in the past year rather than file a Medicare claim. Of these individuals, 37 percent indicated that the total amount of the bills they had paid themselves was less than \$75 (the current Part B deductible), 31 percent reported that the amount they paid was over \$75, and 32 percent did not report the dollar amount of their unfiled claims. Among respondents reporting unsubmitted bills from the prior year exceeding \$75, the most commonly cited reasons for not filing the claim was that filing claims is too complicated or time-consuming, although a variety of other reasons were given as well. Low-income beneficiaries were as likely to report not filing claims as more affluent respondents. The survey data suggest that in 1988, Medicare beneficiaries did not file claims for services for which Medicare should

have paid that added up to somewhere in the range of about \$90 to \$130 million. Making these payments would have increased Part B outlays by about 0.3 to 0.4 percent.

THE IMPORTANCE OF THE SURVEY FINDINGS

The survey findings presented in this report have already contributed significantly to the policy process. In its 1989 Report to Congress, PPRC recommended a comprehensive set of Medicare physician payment reforms. These include limiting charges for unassigned claims to a fixed percentage of the new fee schedule amount (which would be established as part of a package of payment reforms), and requiring that physicians submit all Medicare claims, including unassigned claims, directly to carriers (at no additional cost to the beneficiary).

Analysis of the survey data is continuing. Part B billing data from 1988 for all survey respondents are scheduled to become available for analysis in late 1989. These data should lead to better understanding of beneficiaries' out-of-pocket expenses for physician services, as well as patterns of assignment and balance billing. Building on the findings presented here, the Commission will continue to work with HCFA, beneficiary organizations and the medical profession on ways to increase beneficiaries' financial protection and to ensure that Medicare enrollees receive the benefits to which they are entitled.

I. INTRODUCTION

Since the inception of the Medicare program, physicians have been free to decide on a claim-by-claim basis whether or not to accept assignment. When physicians accept assignment on a claim, they agree to accept the Medicare-allowed charge as payment-in-full, and the patient's cost sharing liability is limited to the Part B deductible and the 20 percent coinsurance amount. When assignment is not accepted, physicians may "balance bill" the patient -- i.e., charge an amount in excess of the Medicare-approved charge. In 1988, approximately 81 percent of all covered Part B charges were accepted on assignment, and the total balance billing liability on unassigned claims was \$2.25 billion (PPRC, 1989).

In 1984, the Medicare program implemented the Medicare Participating Physician and Supplier Program (PAR), which offers incentives to physicians to agree in advance to accept assignment on all claims for a one-year period. Through March 1989, about 41 percent of physicians who treat Medicare patients had signed participation agreements.¹ By selecting PAR physicians, beneficiaries can be assured that all their claims will be accepted on assignment. Annual directories identifying participating physicians are available to Medicare beneficiaries from the carriers and are available at Social Security offices and many senior citizen organizations.

To obtain information on Medicare beneficiaries' understanding of and experience with the Medicare physician payment system, the Physician Payment Review Commission awarded a contract to Mathematica Policy Research in August 1988 to conduct a beneficiary survey. The survey explored a wide range of issues, including beneficiaries' awareness and understanding of assignment and the PAR program, understanding of Medicare benefit forms, reported assignment experience, financial access to care, and willingness to switch to a PAR physician. The survey also examined the extent of and the reasons for the "shoeboxing" phenomenon -- that is, beneficiaries not filing claims for services for which they are entitled to reimbursement.

This report summarizes the major findings obtained from the beneficiary survey. A major focus of the analysis is on examining the extent to which beneficiaries' understanding of and experience with the Medicare physician payment system vary with the characteristics of the beneficiary. Of particular interest is the understanding and experience of beneficiaries who are expected to be especially vulnerable to high medical bills, such as low income beneficiaries, those in poor health, and those without supplemental insurance.

The remainder of this report is organized as follows. Section II provides an overview of the data, focusing on issues of sample design, survey methodology, and response rates. Section III investigates beneficiaries' awareness and understanding of assignment and the Participating Physician Program, and their understanding of Medicare benefit forms. Section IV examines beneficiaries' reported assignment experience, reported out-of-pocket costs, and financial access to care. Section V examines the extent of and reasons for the "shoeboxing" phenomenon, and estimates the increase in Medicare program expenditures that would be incurred under a

¹ Health Care Financing Administration, U.S. Department of Health and Human Services, press release, May 18, 1989.

policy requiring submission of all claims by physicians. Section VI explores beneficiaries' willingness to switch from their current physician to a participating physician, and Section VII summarizes the findings of this study.

II. THE SURVEY DATA

The data employed in this study were collected in a telephone survey of Medicare beneficiaries conducted over a nine week period beginning in late November of 1988. In this section, we provide an overview of the sample design and the data collection methods used for this project. We also report the response rate for the survey, and provide summary statistics on the characteristics of survey respondents and nonrespondents.

A. Sample Design

The survey was conducted on a stratified random sample of the national Medicare population drawn in October 1988 from HCFA's Master Beneficiary File, the main identification and registration file for Medicare beneficiaries. The survey sample was drawn from the 5 percent sample of beneficiaries for whom HCFA maintains detailed Part B claims data, which will enable PPRC in the near future to merge claims data with the survey data. The sample was restricted to beneficiaries who are covered by Medicare Parts A and B, and those who are not enrolled in a health maintenance organization (HMO) under either a cost or risk contract with HCFA.

The sample was designed to yield approximately 2,000 completed interviews. To obtain sufficient numbers of survey respondents in key subgroups of interest, such as low income beneficiaries, minorities, and the "old-old," a stratified sample design was specified in which blacks and beneficiaries age 85 and over were oversampled. The stratification methods and sampling rates are described in detail in Appendix A. The appendix also describes the weighting procedures that were used in the analysis to account for the stratified sample design.

B. Survey Methodology

Interviews were conducted by telephone from Mathematica's office in Princeton, New Jersey. Interviewing began on November 28, 1988 and continued for nine weeks through February 2, 1989. The interviews required an average of 30 minutes to complete. Thirty-eight interviewers and three supervisors worked on the study. One of the interviewers was multilingual and one-quarter of the interviewers had previous experience interviewing Medicare beneficiaries about similar topics. Depending on experience, interviewers underwent 12 to 16 hours of training including discussion of the purpose and importance of the study, specific instructions for administering questions, a review of effective contact methods, methods for dealing with difficulties associated with interviewing an aging population by telephone, role playing and practice interviewing.

In designing the instrument and procedures for the survey, there were three major challenges to overcome:

- o To interview an aging population by telephone, we had to overcome some of the physical and cognitive disabilities associated with aging, including hearing impairments and a decreased ability to distinguish among answer categories.
- o To obtain attitudinal and behavioral information about complex financial and insurance issues from a population with limited understanding of the concepts, we had to first assess the respondents' knowledge of the concept, and then provide enough information to respondents who did not understand the concept to allow them to answer subsequent questions in a meaningful way.
- o In order to have confidence in the results of the survey, we needed to employ methods that ensured high response rates and thorough coverage of the most vulnerable and hardest to interview groups in the sample.

This section briefly describes the survey design features and interviewing procedures that were selected to meet the challenges described above. Design procedures include: (1) use of focus groups and pretesting, (2) designing question flow to first assess *knowledge* of Medicare concepts, and then share knowledge so respondents had a common base of information when answering questions about assignment *experience*, (3) wording questionnaires to overcome high frequency hearing loss and short term memory deficiencies, and (4) use of visual aids. Fielding procedures include finding telephone numbers which were not available on the Master Beneficiary file, use of proxy respondents, and institutional interviews.

1. Questionnaire Design

In the initial stages of designing the questionnaire, five focus group discussions were held in order to acquaint the research team with Medicare beneficiaries' knowledge of Medicare concepts and the language that beneficiaries use when discussing their benefits and claims.² We learned, for example, that the Explanation of Medicare Benefits (EOMB) form is commonly called the "This is Not a Bill Form." We also identified an out-of-pocket cost that we had not anticipated -- doctors charging patients for filing claims. More importantly, we learned that there is a wide range of understanding of health insurance concepts in general and Medicare benefits in particular, and that we could not ask questions about respondents' out-of-pocket costs without a visual aid.

Using this information, we developed a questionnaire that tested knowledge of Medicare concepts early in the interviewing process, and then provided a standard set of information about assignment to those who did not understand the concept, in order to obtain information about beneficiaries'

² The focus groups included low and moderate income beneficiaries in New Jersey and the District of Columbia.

assignment experience. Pretesting alternative versions of the questionnaire revealed the importance of asking questions about Medicare concepts in terms of respondent behavior rather than in insurance terminology. For example, to obtain information about whether respondents had been treated on assignment, beneficiaries were questioned about (1) whether the provider completed the claim form and mailed it to Medicare, and (2) whether the Medicare check was sent to the provider or the respondent.

To overcome problems associated with hearing loss, high frequency sounds were eliminated from the questionnaire and the number of answer categories was reduced. High frequency hearing loss is associated with aging. In the English language, high frequency sounds are s,z,t,f,and g. Questions were reworded to eliminate as many of these sounds as possible. For example, the word "troublesome" was substituted for "confusion," and "happy" was used instead of "satisfied". In addition, since the elderly have more difficulty than younger populations in distinguishing among answer categories, three point scales were selected rather than five point scales. To preserve a five point scale, the scale was divided into two questions.

A final design feature worth noting is the use of visual aids to help assess knowledge of Medicare concepts and obtain information about the reasons for and amounts of out-of-pocket costs. Visual aids were mailed to each sample member with the advance letter describing the study (see Appendix C). To assess knowledge about Medicare concepts, we assessed the respondent's ability to read and interpret information on an EOMB form--the form that Medicare beneficiaries receive describing the disposition of each claim filed. The second visual aid was a summary sheet to help collect information about respondents' out of pocket costs on a recent bill.

2. Field Procedures

The biggest source of nonresponse in this survey and other surveys of Medicare beneficiaries for which the sample is drawn from HCFA's Master Beneficiary File is the inability to locate sample members. Since the Master Beneficiary File does not contain telephone numbers, it was necessary to obtain this information through other means. Telephone numbers were available from directory assistance for approximately 70 percent of sampled beneficiaries. The remainder did not have telephones, had unpublished numbers, or were living in households or facilities with telephones available but not listed in the sample member's name. To obtain numbers not available from directory assistance, reverse directories were used. Reverse directories list telephone numbers by address, not name. Numbers were obtained for the address listed for the sample member and for one or two nearby neighbors. When necessary for searching and tracking, calls were made to the neighboring houses. In addition to these telephone searching techniques, advance letters were mailed "address correction requested." Changes in address were reported to MPR and attempts were made to contact respondents at their new addresses.

Some respondents, even when located, could not participate in a telephone interview because of physical or cognitive impairments. In most cases, proxy

respondents were identified who could answer on their behalf. A proxy was defined as someone who is knowledgeable about the sample member's health care and helps the sample member with Medicare paperwork. Eighteen percent of the completed interviews were conducted with proxy respondents, which is consistent with our experience with other surveys of the Medicare population. Most proxies represented respondents with hearing impairments.

Interviewers were trained to limit the use of proxies as much as possible. For example, before conducting an interview by proxy, the interviewer probed to make sure that the sample member was *unable* to participate in the survey; proxies were not used in cases where the sample member was unwilling to participate or temporarily unavailable. Proxy interviews were not conducted on behalf of cognitively able sample members who did not grant permission for such an interview.

Interviewers encouraged sample members to speak for themselves even if they did not feel particularly knowledgeable about their Medicare benefits. If the sample member was not feeling well or unable to participate on a particular day, the interviewer arranged to call back at a more convenient time or to conduct the interview in two or three short sessions. If the sample member was in a hospital or nursing home and was able, the interview was conducted by calling the facility rather than a proxy. In total, 4 percent of the completed interviews were with sample members in nursing homes or other long term care facilities, and another 3 percent lived in other institutional settings such as boarding or rest homes, convents, and in one case, jail.

C. Survey Response Rates And Characteristics Of Respondents

1. Survey Response Rates

The original sample drawn from HCFA's Master Beneficiary File contained 2,950 Medicare beneficiaries. One hundred nine of these beneficiaries were determined to be ineligible for the survey because they were newly enrolled HMO members, had another source of insurance that was primary over Medicare, or were recently deceased. The total eligible sample thus contained 2,841 beneficiaries. An interview was completed with 1,994 of these individuals, representing a response rate of approximately 70 percent (see Table II.1).

Seventeen percent of the eligible sample could not be located for interviews, representing the single largest source of nonresponse. Seven percent could not be reached for interviews because they had an unpublished telephone number or no telephone at all, and 4 percent were confirmed as having incorrect addresses listed on HCFA's Master Beneficiary File. Another 6 percent were classified as unable to locate in general, but were not confirmed as having incorrect addresses, unpublished telephone numbers, or no phones at all. Since addresses on HCFA's master file are updated when Medicare claims are filed, beneficiaries with recent claims are more likely to have been

TABLE II.1
SURVEY RESPONSE RATES

Eligible Final Statuses ^a	(N = 2841)
Complete	70.2
Refusal	9.4
Cannot Locate By Telephone	
- Unlisted Number Or No Phone	7.3
- Confirmed Wrong Address	3.5
- Other	6.1
Unable to Respond, No Proxy Available	
- Language Barrier	0.2
- Incapacitated	1.2
Out of Area for Duration of Study Period	0.5
Unable to Reach After Multiple Attempts	1.0
Partially Completed Interview	0.6

^a 109 cases were deleted from the survey sample of 2950. These included 24 HMO members, 40 individuals for whom Medicare was not the primary source of health insurance, 43 persons who died after the sample was drawn, and 2 who moved out of the country.

located and interviewed than those who have not made a recent claim. Repeated and thorough attempts were made to reach every member of the sample.

The second largest source of nonresponse was refusal to participate in the survey, with 9 percent of the eligible sample refusing to be interviewed. Two percent of the eligible sample could not be interviewed because of physical or cognitive disabilities, language barriers, or because they were out of the area for the duration of the survey period and had no proxy available to complete the interview on their behalf.

2. Comparison of Survey Respondents and Nonrespondents

While 70 percent is an excellent response rate for a survey of this sort, it is important to compare the characteristics of respondents and nonrespondents to determine whether there are any systematic or significant differences between those who participated in the survey and those who did not. It is also important to compare the characteristics of the respondent sample and the total eligible sample to determine whether the sample of survey respondents is representative of the population of interest. Table II.2 compares survey respondents, nonrespondents, and the total eligible sample on key demographic and geographic characteristics. Variables used for this comparison were limited to those on the HCFA Master Beneficiary File, since these are the only variables that were available for nonrespondents as well as respondents. These variables include age, sex, race, and geographic breakdowns that were constructed from the state and county codes on the file.

The data in the table reveal that the following subgroups are somewhat less heavily represented among respondents than among nonrespondents: the disabled (9 percent versus 12 percent), females (59 percent versus 65 percent), blacks (18 percent versus 22 percent), and beneficiaries residing in metropolitan areas with a population of 1 million and over (33 percent versus 42 percent). Hence, these subgroups are slightly underrepresented in the respondent sample. However, because of the relatively high overall response rate, the respondent sample is very similar to the total eligible sample on each of the characteristics examined. For example, although the respondent sample is biased toward males, the male/female distribution in the respondent sample (41 percent versus 59 percent) is very similar to that in the total eligible sample (39 percent versus 61 percent). Thus, the degree of nonresponse bias, as measured by differences between the respondent sample and the total eligible sample on observable characteristics, is relatively minor.

Although the major conclusion to be drawn from the data in Table II.2 is that the respondent sample is very similar to the total eligible sample on the characteristics examined, some of the differences between respondents and nonrespondents merit further discussion. For example, the fact that the respondent sample is biased toward males is not unexpected, since males are more likely than females to have a telephone listing in their own name, and

TABLE II.2
COMPARISON OF SURVEY RESPONDENTS, NONRESPONDENTS,
AND THE TOTAL ELIGIBLE SAMPLE ON
DEMOGRAPHIC AND GEOGRAPHIC CHARACTERISTICS

	<u>Respondents</u> (N = 1994)	<u>Non</u> <u>Respondents</u> (N = 847)	<u>Total</u> <u>Sample</u> (N = 2841)
<u>Age</u>			
<65 (disabled)	9.1%	11.9%	9.9%
65-74	47.6	42.3	46.0
75-84	26.3	28.9	27.0
85 and over	17.0	16.9	17.0
<u>Sex</u>			
Male	40.6	34.8	38.9
Female	59.4	65.2	61.1
<u>Race/Ethnic Background</u>			
White	78.3	74.4	77.1
Black	18.4	21.5	19.3
Other	0.7	1.5	0.9
Unknown	2.5	2.6	2.5
<u>Region</u>			
Northeast	21.6	22.7	21.9
North Central	27.2	25.7	26.8
South	37.4	35.5	36.8
West	13.7	16.0	14.4
<u>Urban/Rural</u>			
<u>Metropolitan</u>			
Population 1,000,000 and over	33.2	41.8	35.8
Population under 1,000,000	33.1	29.0	31.9
<u>Non Metropolitan</u>			
Population 25,000 and over	21.7	17.2	20.4
Population under 25,000	12.0	12.0	12.0
<u>Nonmetropolitan, Contiguous to Urban Area</u>			
	14.2	12.6	13.7
<u>Health Manpower Shortage Area</u>			
Entire County	5.5	5.8	5.6
Part of the County	59.0	62.3	60.0
Not a Shortage Area	35.5	31.9	34.4
<u>Assignment Policy^a</u>			
No assignment program	55.8	56.8	56.1
Mandatory assignment	2.2	2.6	2.3
Means tested assignment by law	2.5	2.2	2.4
Voluntary assignment program	39.6	38.4	39.2

^a Information on the assignment policy of each state as of September 1988 was obtained from the American Medical Association. States with assignment programs are classified as follows: mandatory assignment for all Medicare beneficiaries: Massachusetts; means-tested assignment: Connecticut, Rhode Island, and Vermont; voluntary assignment: Colorado, District of Columbia, Iowa, Minnesota, Mississippi, New Jersey, New York, Ohio, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Virginia, and Wisconsin.

since obtaining a correct telephone number was an essential step in conducting an interview. The fact that beneficiaries residing in large metropolitan areas are underrepresented in the respondent sample is also not unexpected, since searching for hard to locate respondents is more difficult in larger metropolitan areas. Also, individuals in larger metropolitan areas have historically been more fearful and less willing to participate in telephone interviews.

3. A Closer Look at Survey Respondents

Table II.3 presents a more detailed summary of the characteristics of survey respondents. Selected characteristics obtained from the interview -- income, education, health status, and supplemental insurance coverage -- are included in addition to the characteristics examined above.

Characteristics are presented both for the entire sample of survey respondents and for subsamples defined by the need for a proxy to complete the interview and by whether the respondent had a regular source of medical care.

Since blacks and beneficiaries age 85 and over were oversampled, both are represented more heavily in the sample of survey respondents than in the Medicare population nationally. While blacks account for 8 percent of the national Medicare population, they account for nearly 18 percent of the survey sample. Beneficiaries age 85 and over, who account for 10 percent of the national Medicare population, account for 17 percent of the survey sample. The oversampling of blacks also led to an increased percentage of poor beneficiaries in the sample, since the poverty rate among black Medicare beneficiaries is approximately three times that among whites (U.S. Bureau of the Census, 1988).³ Thus, while published data indicate that 13 percent of the Medicare population was below the poverty level in 1986, 25 percent of survey respondents reported incomes which placed them below the poverty level.

By obtaining larger numbers of blacks, low income beneficiaries, and the "old-old" in the survey sample than would be obtained in simple random sample, we increase the statistical precision with which analyses on these subgroups can be conducted. This design requires the use of sample weights for the analysis, as described in Appendix A. However, weights were not used in constructing the tables in this section, since the objective here is merely to summarize the characteristics of the sample.

Approximately 18 percent of all interviews were conducted with a proxy respondent. When survey respondents are classified by whether a proxy was needed to complete the interview, we find that those requiring proxies were more likely to be disabled, older, poorer, less educated, and in poorer health than those for whom proxies were not required. Table III.3 also classifies

³ Indeed, the strategy of oversampling blacks was specifically designed to increase the proportion of poor beneficiaries in the sample, as described in Appendix A.

**TABLE II.3
DESCRIPTION OF SURVEY RESPONDENTS**

<u>Characteristics</u>	<u>All Survey Respondents (N=1,994)</u>	<u>Self Respondents (N=1,634)</u>	<u>Proxy Respondents (N=360)</u>	<u>With Regular Source of Care (N=1,754)</u>	<u>No Regular Source of Care (N=224)</u>
<u>Age</u>					
< 65 (dlsabled)	9.1%	7.7%	15.3%	9.5%	4.5%
65 - 74	47.6	53.0	23.3	47.4	50.9
75 - 84	26.3	26.8	23.9	26.2	27.7
85 and over	17.0	12.5	37.5	16.9	17.0
<u>Sex</u>					
Male	40.6	39.9	43.9	40.5	41.1
Female	59.4	60.1	56.1	59.5	58.9
<u>Income</u>					
Below poverty level	25.0	21.5	40.5	24.2	30.5
100-150 percent of poverty level	24.4	24.0	25.8	24.3	23.0
150-200 percent of poverty level	15.2	16.3	9.8	14.8	18.5
200-300 percent of poverty level	18.1	18.9	14.4	18.8	13.0
Over 300 percent of poverty level	17.4	19.2	9.5	17.9	15.0
<u>Education</u>					
8 years or less	30.5	27.2	47.6	30.1	32.1
9-11 years	17.0	17.7	13.4	16.9	17.7
High school graduate	28.3	29.1	24.1	29.0	23.3
Some college	13.3	14.5	6.8	13.2	14.4
College graduate	11.0	11.5	8.1	10.8	12.6
<u>Race/Ethnic Background</u>					
White, Non-Hispanic	76.6	76.4	77.5	77.8	68.3
Black, Non-Hispanic	17.6	18.3	14.4	16.6	24.6
Hispanic	3.2	2.6	6.1	3.1	4.5
Other, Non-Hispanic	2.6	2.7	1.9	2.5	2.7
<u>Health Status</u>					
Excellent	16.4	17.3	12.5	14.7	30.4
Good	35.5	37.4	26.9	35.2	39.3
Fair	30.3	30.2	30.8	31.5	21.0
Poor	15.8	13.4	26.7	16.8	8.0
[Hospitalized in last year]	22.9	20.9	31.8	24.4	10.9
<u>Supplemental Coverage</u>					
Medicare only	23.3	23.2	23.5	21.7	35.0
Medicare and Medicaid (with or without private)	10.1	7.6	21.5	10.3	8.2
Medicare and private supplemental (no Medicaid)	66.6	69.1	55.0	68.0	56.8
<u>Region</u>					
Northeast	21.6	22.4	18.3	21.2	25.1
North Central	27.2	27.4	26.4	27.5	24.7
South	37.4	37.0	39.2	38.0	33.2
West	13.7	13.2	16.1	13.3	17.0
<u>Urban/Rural</u>					
<u>Metropolitan</u>					
Population 1,000,000 and over	33.2	32.7	35.3	32.5	36.8
Population under 1,000,000	33.1	34.0	28.9	33.4	31.4
<u>Non Metropolitan</u>					
Population 25,000 and over	21.7	21.6	22.2	22.1	19.3
Population under 25,000	12.0	11.6	13.6	11.9	12.6
<u>Nonmetropolitan, Contiguous to Urban Area</u>	14.2	14.3	13.9	14.2	13.9
<u>Health Manpower Shortage Area</u>					
Entire county	5.5	5.5	5.8	5.7	4.5
Part of the county	59.0	58.9	59.2	58.4	63.7
Not a shortage area	35.5	35.6	35.0	36.0	31.8
<u>Assignment Policy</u>					
No assignment program	55.8	56.4	53.3	56.6	50.0
Mandatory assignment	2.2	2.1	2.5	2.2	2.2
Means tested assignment by law	2.5	2.5	2.2	2.6	1.3
Voluntary assignment program	39.6	39.0	41.9	38.6	46.4

Note: Defined as \$5,649 for an Individual and \$7,126 for a couple, 1988 (U.S. House of Representatives, 1988).

survey respondents by whether they have a regular source of care. Over 88 percent of respondents reported having a regular source of care.

Respondents with a regular source were more likely to be disabled, nonpoor, white, in fair or poor health, and covered by supplemental insurance than were those without a regular source of care.

III. BENEFICIARY UNDERSTANDING OF CONCEPTS AND POLICY

One of the primary objectives of the Medicare Beneficiary Survey is to assess beneficiary understanding of various aspects of the Medicare physician payment system. A lack of understanding of how the Medicare payment system works may foster inefficient use of the system, often to the beneficiary's disadvantage. In order to measure their knowledge of certain elements of the Medicare program, beneficiaries were asked a series of questions concerning assignment, the Participating Physician and Supplier Program, and Medicare benefit forms. This section discusses the findings from this component of the survey.

A. Understanding Of Assignment

One of the principal components of Medicare's physician payment system is assignment. A physician who accepts assignment on a claim agrees to accept Medicare's allowed charge as payment in full; the beneficiary is then billed only for the Part B deductible and coinsurance. Physicians who do not accept assignment may "balance bill" their Medicare patients by charging the patient an amount in excess of the Medicare allowed charge. Consequently, the beneficiary not only pays the Part B deductible and coinsurance, but may also pay a balance billed amount. Since beneficiaries' out-of-pocket costs on a claim may depend on whether the physician accepts assignment, it is important to investigate beneficiaries' understanding of this aspect of the Medicare program.

Table III.1 presents the percentages of survey respondents who had heard the term "assignment" as well as those who could adequately define the term.⁴ Overall, 65 percent of the respondents had heard the term assignment, but only 48 percent could adequately define assignment. Percentages are somewhat higher for proxy respondents than for the actual beneficiaries.

When knowledge of assignment is examined by characteristics of the beneficiary and the market area, several interesting observations may be made. Beneficiaries who were least likely to have heard of assignment, or to be able to define assignment, were:

- o 85 years of age or older
- o female
- o poor
- o less educated

⁴ Only those respondents who mentioned that a physician must accept the Medicare allowed charge as payment in full on an assigned claim were regarded as being able to adequately define assignment.

TABLE III.1
UNDERSTANDING OF ASSIGNMENT

Characteristics	Percent Who Had Heard the Term "Assignment" (N=1,994)	Percent Who Could Define Assignment (N=1,994)
Total	65.4 (1.1)	48.4 (1.2)
<u>Respondent</u>		
Self	64.1 (1.2)	46.6 (1.3)
Proxy	71.6 (2.5)	57.4 (2.7)
<u>Age</u>		
< 65 (disabled)	67.0 (4.2)	55.2 (3.9)
65-74	67.8 (1.5)	51.0 (1.7)
75-84	63.5 (2.2)	45.0 (2.6)
85+	57.3 (2.2)	39.4 (2.8)
<u>Sex</u>		
Male	68.2 (1.7)	53.1 (1.8)
Female	63.3 (1.5)	45.1 (1.5)
<u>Income</u>		
Below the poverty level ¹	46.9 (2.6)	29.9 (2.4)
100-150% of the poverty level	58.6 (2.5)	40.4 (2.5)
150-200% of the poverty level	64.8 (3.0)	47.4 (3.2)
200-300% of the poverty level	77.0 (2.4)	60.9 (2.8)
over 300% of the poverty level	80.9 (2.3)	66.0 (2.7)
<u>Education</u>		
8 years or less	48.3 (2.3)	30.6 (2.1)
9-11 years	62.0 (2.9)	42.3 (3.0)
High school graduate	72.9 (2.0)	56.0 (2.2)
Some college	77.9 (2.7)	59.7 (3.2)
College graduate	82.0 (2.7)	70.6 (3.2)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	69.8 (1.2)	53.0 (1.3)
Black, Non-Hispanic	34.0 (2.6)	14.7 (1.8)
Hispanic	35.4 (6.2)	20.7 (5.3)
Other, Non-Hispanic	44.9 (7.6)	28.7 (7.0)
<u>Health Status</u>		
Excellent	69.8 (2.6)	53.1 (2.8)
Good	66.7 (1.8)	50.0 (2.0)
Fair	62.9 (2.0)	46.2 (2.1)
Poor	62.9 (2.9)	44.0 (3.0)
Hospitalized in last year	69.4 (2.3)	49.8 (2.5)
<u>Supplemental Coverage</u>		
Medicare only	49.2 (2.5)	32.3 (2.4)
Medicare and Medicaid (with or without supplemental)	47.4 (3.8)	35.2 (3.7)
Medicare and private supplemental (no Medicaid)	72.2 (1.3)	54.7 (1.4)

Table III-1 - continued

Characteristics	Percent Who Had Heard the Term "Assignment" (N = 1,994)	Percent Who Could Define Assignment (N = 1,994)
<u>Region</u>		
Northeast	64.1 (2.4)	45.0 (2.5)
North Central	67.1 (2.1)	51.1 (2.2)
South	63.6 (1.8)	47.6 (2.0)
West	68.9 (2.9)	50.8 (3.1)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	68.9 (1.8)	51.3 (2.0)
Population under 1,000,000	64.4 (1.9)	49.3 (2.0)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	65.2 (2.4)	45.0 (2.5)
Population under 25,000	60.0 (3.4)	45.5 (3.4)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	61.2 (3.0)	44.8 (3.1)
<u>Health Manpower Shortage Area</u>		
Entire county	51.4 (5.0)	37.8 (4.9)
Part of the county	65.8 (1.4)	49.0 (1.5)
Not a shortage area	67.1 (1.8)	49.2 (2.0)
<u>Assignment Policy</u>		
No assignment program	66.7 (1.5)	50.0 (1.6)
Mandatory assignment	64.1 (7.4)	42.3 (7.8)
Means tested assignment by law	47.7 (7.3)	37.5 (7.1)
Voluntary assignment program	64.7 (1.8)	47.4 (1.9)
<u>Care Source</u>		
Regular source of care	67.3 (1.2)	50.4 (1.3)
No regular source of care	50.5 (3.6)	32.7 (3.4)

NOTE: The standard error for each percentage is provided in parentheses.

¹ The poverty level is defined as \$5,649 for an individual and \$7,126 for a couple (U.S. House of Representatives, 1988).

- o nonwhite
- o covered by Medicaid
- o without supplemental insurance
- o living in a health manpower shortage area
- o without a regular source of care

The characteristics which are most strongly related to beneficiaries' awareness and understanding of the concept of assignment are income, education, and race. Respondents with incomes above 300 percent of the poverty level were more than twice as likely as those with incomes below the poverty level to understand the concept of assignment. A similar differential exists between college graduates and those with 8 years or less of education. In addition, white respondents were more than three times as likely as blacks to understand the concept of assignment.

Since Medicare beneficiaries covered by Medicaid cannot be balance billed, it is the non-Medicaid segment of the Medicare population that has the greatest incentive to become familiar with the concept of assignment. To investigate levels of awareness and understanding of assignment among the non-Medicaid portion of the Medicare population, the analysis described above was repeated with Medicaid beneficiaries excluded. The results, presented in Appendix Table D.2, reveal that the effect of excluding Medicaid beneficiaries from the analysis is to increase the overall levels of awareness and understanding very modestly. In addition, the relationships between beneficiary characteristics and awareness/understanding reported above for the entire Medicare population are valid for the non-Medicaid segment of the population as well.

To expand on the descriptive analysis presented above, and to identify those factors which are the most important determinants of beneficiary awareness and understanding of the concept of assignment, a multivariate regression analysis was conducted. Models were estimated in which the dependent variable is a binary indicator of beneficiary awareness or understanding (e.g., = 1 if the beneficiary could define the term assignment ; = 0 otherwise), and the explanatory variables include the beneficiary and market area characteristics examined above.⁵

Results of the analysis, presented in Appendix Table D.3, indicate that the beneficiary characteristics which have a negative and statistically significant effect on the likelihood that a beneficiary understands the concept of assignment are: being black or Hispanic, having an income less than 150 percent of the poverty level, having less than a college-level education, being without Medicare supplemental insurance, and being without a regular source of care. Other beneficiary characteristics included in the model, such as age, gender, health status, geographic region, and urban/rural location, do not have a statistically significant effect (at the 5 percent level) on the probability that a beneficiary can define the term assignment. These findings, and the descriptive findings presented above, indicate that beneficiaries with the least ability to pay for medical care, and those who would therefore benefit most from selecting physicians who accept assignment, are the least informed about this aspect of the Medicare program.

⁵ The models were estimated using both ordinary least squares and maximum likelihood probit analysis. However, the conclusions about which characteristics are statistically significant determinants of beneficiary awareness and understanding are invariant to the choice of estimation methodology.

B. Understanding Of The Participating Physician Program

The Medicare Participating Physician and Supplier Program (PAR) was implemented in 1984 in an effort to increase assignment rates, by providing incentives for physicians to agree in advance to accept assignment on all claims for a one-year period. Since PAR physicians accept assignment on all claims, beneficiaries who select such providers can be assured that they will not be balance billed, and that their out-of-pocket costs will be limited to the Part B deductible and 20 percent coinsurance amount.

Table III.2 presents the percentages of survey respondents who had heard of the PAR program as well as those who could adequately define the program.⁶ Overall, 52 percent of the respondents had heard of the program, but only 25 percent could define the program. Self-reported and proxy responses yielded similar percentages for both having heard of, and being able to define, the PAR program.

When knowledge of the PAR program is examined by beneficiary and market area characteristics, several interesting patterns emerge. Beneficiaries who were least likely to be aware of or understand the PAR program were:

- o 85 years of age or older
- o female
- o poor
- o less educated
- o nonwhite
- o covered by Medicaid
- o without supplemental insurance
- o living in a health manpower shortage area
- o without a regular source of care

Not surprisingly, these are the same types of beneficiaries identified above as being least likely to be aware of or understand the concept of assignment. As was true for that earlier analysis, the beneficiary characteristics which appear to be most strongly related to awareness and understanding of the PAR program are income, education, and race. Only 16 percent of respondents below the poverty level, 16 percent of those with 8 years of education or less, and 9 percent of blacks could adequately define the PAR program.

A multivariate regression analysis similar to that described above was conducted to determine which characteristics are the most important determinants of awareness and understanding of the PAR program. Results of this analysis, presented in Appendix Table D.5, reveal that the beneficiary characteristics which have a negative and statistically significant effect on the likelihood that a beneficiary understands the PAR program are: being black, having less than a college-level education, and not having a regular source of care. While income per se does not have a statistically significant effect on the likelihood that a beneficiary understands the PAR program, low income beneficiaries are much less likely to understand the program than are

⁶ Only those respondents who mentioned that a physician must accept the Medicare allowed charge as payment in full (i.e., accept assignment) on *all* claims were regarded as being able to adequately define the PAR program.

TABLE III.2
UNDERSTANDING OF THE PARTICIPATING PHYSICIAN PROGRAM

Characteristics	Percent Who Had Heard of the PAR Program (N=1,994)	Percent Who Could Define the PAR Program (N=1,994)
Total	52.0 (1.2)	24.8 (1.0)
<u>Respondent</u>		
Self	52.0 (1.3)	25.2 (1.1)
Proxy	51.6 (2.8)	22.6 (2.4)
<u>Age</u>		
< 65 (disabled)	51.3 (4.0)	28.8 (3.7)
65-74	56.9 (1.7)	26.9 (1.5)
75-84	47.5 (2.3)	21.8 (1.9)
85+	40.5 (2.7)	19.3 (2.2)
<u>Sex</u>		
Male	55.3 (1.8)	25.0 (1.6)
Female	49.6 (1.5)	24.6 (1.3)
<u>Income</u>		
Below the poverty level	37.6 (2.5)	15.6 (1.9)
100-150% of the poverty level	43.6 (2.6)	21.1 (2.1)
150-200% of the poverty level	53.9 (3.2)	26.7 (2.8)
200-300% of the poverty level	60.2 (2.8)	29.1 (2.6)
over 300% of the poverty level	66.0 (2.7)	33.1 (2.7)
<u>Education</u>		
8 years or less	34.8 (2.2)	16.2 (1.7)
9-11 years	51.8 (2.9)	18.9 (2.3)
High school graduate	60.6 (2.2)	29.0 (2.1)
Some college	59.1 (3.2)	33.9 (3.1)
College graduate	68.2 (3.3)	36.7 (3.5)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	54.7 (1.3)	27.1 (1.2)
Black, Non-Hispanic	30.5 (2.5)	9.0 (1.5)
Hispanic	45.4 (6.4)	14.3 (4.6)
Other, Non-Hispanic	30.1 (7.1)	5.6 (3.8)
<u>Health Status</u>		
Excellent	57.2 (2.8)	26.5 (2.6)
Good	54.3 (1.9)	26.9 (1.8)
Fair	48.2 (2.1)	21.8 (1.8)
Poor	50.5 (3.0)	24.4 (2.6)
Hospitalized in last year	50.6 (2.5)	25.3 (2.2)
<u>Supplemental Coverage</u>		
Medicare only	41.0 (2.5)	18.4 (2.0)
Medicare and Medicaid (with or without supplemental)	43.3 (3.9)	17.4 (3.0)
Medicare and private supplemental (no Medicaid)	56.4 (1.4)	27.7 (1.3)
<u>Region</u>		
Northeast	54.4 (2.5)	27.0 (2.3)
North Central	52.1 (2.2)	24.6 (2.0)
South	48.8 (2.0)	22.9 (1.7)
West	54.8 (3.1)	26.4 (2.8)

Table III-2 - continued

Characteristics	Percent Who Had Heard of the PAR Program (N=1,994)	Percent Who Could Define the PAR Program (N=1,994)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	54.5 (2.5)	26.5 (1.9)
Population under 1,000,000	52.1 (2.2)	25.8 (1.8)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	48.8 (2.0)	21.6 (2.1)
Population under 25,000	54.8 (3.1)	23.6 (2.9)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	46.8 (3.1)	21.8 (2.6)
<u>Health Manpower Shortage Area</u>		
Entire county	47.7 (5.0)	20.9 (4.2)
Part of the county	52.1 (1.5)	25.7 (1.4)
Not a shortage area	52.2 (2.0)	24.0 (1.7)
<u>Assignment Policy</u>		
No assignment program	50.6 (1.6)	24.3 (1.4)
Mandatory assignment	38.2 (7.7)	16.4 (5.8)
Means tested assignment by law	48.1 (7.3)	31.4 (6.8)
Voluntary assignment program	55.0 (1.9)	25.6 (1.7)
<u>Care Source</u>		
Regular source of care	53.0 (1.2)	25.9 (1.1)
No regular source of care	45.9 (3.6)	16.2 (2.7)

NOTE: The standard error for each percentage is provided in parentheses.

more affluent beneficiaries, due to the correlation between education, race, and income.

Also of interest, only 8 percent of the survey respondents had ever seen a "Medicare Participating Physician and Supplier Directory," and less than 3 percent of the total sample had used this directory to locate a participating physician. Beneficiaries with incomes below 150 percent of the poverty level and those with less than a high school education were less likely than other respondents to have seen or used a PAR directory. However, these data indicate that even beneficiaries who are aware of and understand the PAR program appear to be using PAR directories to a very limited extent.

C. Understanding Of Medicare Benefit Forms

Several weeks prior to the survey, sampled beneficiaries were sent two sample "Explanation of Medicare Benefits" forms, one detailing charges for an office visit and the other for a surgical episode. Beneficiaries were asked to keep these forms near the telephone for reference during the interview. The sample forms, which are included in Appendix C, contained information pertaining to two hypothetical claims:

- o Sample Form 1 summarizes a hypothetical claim for an office visit for which assignment was not taken, and for which the billed charge and the approved charge are \$55 and \$50, respectively.
- o Sample Form 2 summarizes a hypothetical claim for surgical services for which assignment was taken, and for which the approved charge is \$750.

As part of the telephone interview, the interviewer asked each respondent to identify certain items on the sample form and to draw relevant conclusions. Results from this series of questions on the Medicare Benefit forms are presented in Table III.3. Fifty-seven percent of survey respondents correctly determined whether the patient on Sample Form 1 had met the deductible, and only 31 percent correctly determined that the provider on that sample form was not a participating physician. For both sample forms, over 80 percent of respondents correctly identified the actual charge, and over 60 percent correctly identified the allowed charge. The greatest difference occurred in respondents' ability to correctly determine the patient's liability on the two claims. On the surgical claim, for which assignment was taken, 86 percent of respondents correctly determined the patient's liability. However, only 34 percent of respondents correctly determined the patient's liability on the office visit claim, for which assignment was not taken.

The descriptive analysis also includes examining the percent of respondents who correctly identified patient liability, for office visit and surgical episode, by beneficiary and market area characteristics. These results are presented in Appendix D.6 and D.7. Once again, patterns similar to those discussed above are evident. Beneficiaries who were least likely to correctly identify patient liability, either for the office visit or surgical episode, were 75 years of age or older, female, poor, less educated, nonwhite, covered by Medicaid, without supplemental insurance, and living in a health manpower shortage area. As with the previous analyses,

TABLE III.3
PERCENT WHO CORRECTLY INTERPRETED INFORMATION ON MEDICARE BENEFIT FORMS

Item	All Beneficiaries (N=693)	Beneficiaries Not On Medicaid (N=651)
Whether patient has met deductible	57.3 (1.9)	58.2 (2.0)
Whether provider is a participating physician	30.9 (1.8)	31.8 (1.9)
Office visit		
- Actual charge	83.9 (1.4)	83.9 (1.5)
- Allowed charge	75.2 (1.7)	75.1 (1.7)
- Patient liability	33.7 (1.9)	34.8 (1.9)
Surgery		
- Actual charge	94.2 (0.9)	94.3 (0.9)
- Allowed charge	63.3 (1.9)	64.5 (1.9)
- Patient liability	86.0 (1.4)	86.3 (1.4)

NOTE: The standard error for each percentage is provided in parentheses.

beneficiary characteristics which were most strongly related to respondents' ability to correctly identify information on Medicare benefit forms are income, education and race.

IV. BENEFICIARIES' ASSIGNMENT EXPERIENCE

A. Overview Of The Issue

Over the past decade, assignment rates on Medicare claims have increased substantially, rising from 50.9 percent in 1978 to 80.5 percent in 1988 (PPRC, 1989).⁷ Much of this increase occurred after the implementation of the Medicare Participating Physician Program in 1984, although assignment rates had been gradually increasing prior to that time. While overall rates of assignment have increased substantially, there remains considerable variation by physician specialty, place of service, and type of service. Assignment rates have typically been higher for inpatient physician services than for services provided in physicians' offices, and slightly higher for surgical procedures than for medical care services.

While most Medicare beneficiaries purchase Medicare supplemental insurance to reduce their liability for the Medicare deductible and coinsurance amounts, only some of these insurance policies cover balance billing amounts. In addition, approximately 20 percent of Medicare beneficiaries have neither Medicare supplemental insurance nor Medicaid eligibility, and are thus financially liable for the Medicare deductible and coinsurance in addition to any balance billed amount. Survey data presented below indicate that beneficiaries who do not have Medicare supplemental insurance are less affluent, less educated, in poorer health, and disproportionately nonwhite. These findings are consistent with those reported by Garfinkel and Corder (1985) based on data from the 1980 National Medical Care Utilization and Expenditure Survey and preliminary estimates from the 1987 National Medical Expenditures Survey.⁸

Since only 20 percent of covered Part B charges were subject to balance billing in 1988, the out-of-pocket liability of most Medicare beneficiaries is due to the Medicare deductible and the 20 percent coinsurance requirement. The Congressional Budget Office has estimated that in 1987 the total out-of-pocket liability for covered Part B services was \$401 per enrollee, and that balance billing liability accounted for an average of \$105 per enrollee (U.S. House of Representatives, 1988). Balance billing liability is not distributed evenly across the beneficiary population, however. CBO estimates that in 1987 the average balance billing liability was \$73 for those beneficiaries who did not have a hospital stay, but \$252 for those beneficiaries with one inpatient stay, and \$440 for those with two or more inpatient stays.

⁷ These assignment rates are expressed as the percent of covered charges accepted on assignment. The percent of claims accepted on assignment increased from 53.7 percent in 1978 to 77.3 percent in 1988.

⁸ Unpublished data from Round 1, National Center for Health Services Research and Health Care Technology Assessment, 1988.

There has been little research conducted on the extent to which physicians take beneficiaries' income, insurance status, or health status into consideration when deciding whether or not to accept assignment. With the many changes under consideration for Medicare physician payment reform, it is important to understand the extent to which balance billing is imposing a burden on those beneficiaries who are least able to afford health care.

The Medicare beneficiary survey conducted for this study included a substantial component intended to provide data on the distribution of assigned claims and balance billing, by characteristics of Medicare beneficiaries. In addition, to determine whether the burden of total out-of-pocket liability affects some Medicare beneficiaries' ability to seek and obtain needed health care, beneficiaries were asked whether they had postponed seeking health care because of costs during the past year.

B. Usual Assignment Experience

Survey respondents who reported having a regular source of care were asked about their assignment experience with that provider and with their most recent visit to a specialist. Respondents who did not have a regular source of care were asked about their assignment experience on their last physician visit. In each case, only beneficiaries who had filed claims in the past two years were questioned about their assignment experience. In addition, all beneficiaries who had a bill from a physician they had not seen personally (frequently a radiologist, pathologist, or anesthesiologist (RAP)) in the past year were asked about their assignment experience on that bill.

Beneficiaries treated on assignment were identified as those who indicated that the provider had filed the claim and that the check from Medicare had been sent directly to the provider. Beneficiaries' assignment experience was measured somewhat differently for visits to a regular source of care than for all other physician visits covered in the survey. In the case of visits to a regular source of care, beneficiaries were questioned about whether the provider *usually* accepts assignment, while for other physician visits, beneficiaries were asked about their assignment experience on their *most recent* bill. This distinction was made in order to obtain information about overall patterns of assignment with beneficiaries' regular source of care. Respondents' assignment experience on individual claims will be examined by PPRC staff in the future, once the survey data are merged with Part B claims data.

Beneficiaries covered by Medicaid were not questioned about their assignment experience during the interview, since assignment is mandatory for these individuals. Therefore, much of the discussion below focuses on the assignment experience of beneficiaries not covered by Medicaid, which reflects the voluntary assignment rate. However, we also present total assignment rates, which we have computed by assuming that all beneficiaries covered by Medicaid who reported having a claim in the past two years were treated on assignment.

Table IV.1 presents a summary of the reported assignment experience of survey respondents. For each type of claim identified in the table, the assignment rate was

TABLE IV.1
PERCENT OF RESPONDENTS TREATED ON ASSIGNMENT

	Medicaid Beneficiaries Included	Medicaid Beneficiaries Excluded
<u>With Regular Source of Care</u>		
- Usually Treated on Assignment by Regular Physician (N = 1,498)	59.6 (1.3)	55.2 (1.4)
- Treated on Assignment on Last Visit to a Specialist (N = 842)	72.2 (1.6)	68.7 (1.8)
<u>No Regular Source of Care</u>		
- Treated on Assignment on Last Physician Visit (N = 68)	59.6 (6.4)	53.5 (7.1)
<u>With a Bill From an RAP In the Past Year</u>		
- Treated on Assignment on Last RAP Bill (N = 286)	73.5 (2.8)	73.2 (2.8)

NOTES: Assignment rates were computed for all Individuals who filed a claim in the past two years (the past year for RAP). The sample sizes reported in the table include Medicaid beneficiaries.

Respondents who were not able to report whether they were treated on assignment were excluded from the analysis.

The standard error for each percentage is provided in parentheses.

computed for respondents who reported having at least one claim in that category during the past two years (the past year in the case of claim from a physician the beneficiary had not personally met or seen). Respondents who were not able to report whether they were treated on assignment were excluded from the analysis. Overall, 55 percent of survey respondents with a regular source of care and not covered by Medicaid reported that they were usually treated on assignment by their regular physician, and 69 percent of these beneficiaries had been treated on assignment on their last visit to a specialist.

Among beneficiaries without a regular source of care and not on Medicaid, 54 percent reported being treated on assignment on their last physician visit. It is worth noting, however, that this estimate is based on a very small sample, since only 68 sample members were without a regular source of care and knew whether they had been treated on assignment on their last visit.

Finally, of the 286 respondents who had received a bill from a physician they had not personally interacted with in the past year, 73 percent reported that the physician had accepted assignment on their claim. Of these, about three fourths were bills from radiologists, anesthesiologists and pathologists, while the remainder were for other types of consultations or services, or for services the respondent was unable to characterize. Respondents stated that assignment rates for their last RAP bills were somewhat lower than those for all services provided by physicians they did not know: 71 percent of radiology, 69 percent of anesthesiology, and 64 percent of pathology bills were reported to be assigned. Again, it should be noted that the number of bills involved is quite small, and therefore should be interpreted very cautiously.

The lower reported assignment rates for respondents' regular source of care than for specialists is consistent with previously published figures computed from Medicare claims data, which indicate that primary care specialties tend to have lower assignment rates than medical subspecialties (PPRC, 1988). However, it is important to keep in mind that assignment rates computed from the survey data for respondents' regular source of care and for specialists have been measured somewhat differently, since the former reflect respondents' usual assignment experience, while the latter reflect the experience on their most recent bill.

To determine whether and to what extent beneficiaries' assignment experience depends on their ability to pay and their health status, we examine the relationship between beneficiary characteristics and reported assignment experience (Table IV.2). Beneficiaries covered by Medicaid have been excluded from this analysis, in order to focus on those for whom assignment is voluntary. The data reveal that beneficiaries are somewhat more likely to be treated on assignment by their regular source of care if they are:

- o disabled and under age 65
- o poor
- o black or Hispanic
- o without Medicare supplemental insurance
- o living in the Northeast

TABLE IV.2

**PERCENT OF RESPONDENTS TREATED ON ASSIGNMENT
(Individuals With a Regular Source of Care and Not on Medicaid)**

Characteristics	Percent Usually Treated On Assignment By Regular Physician (N= 1,318)	Percent Treated On Assignment On Last Visit To a Specialist (N= 725)
Total	55.2 (1.4)	68.7 (1.8)
<u>Respondent</u>		
Self	54.6 (1.6)	68.0 (2.0)
Proxy	58.7 (3.5)	72.1 (4.1)
<u>Age</u>		
< 65 (disabled)	67.8 (4.9)	66.7 (7.3)
65-74	55.0 (2.1)	69.8 (2.5)
75-84	53.2 (2.7)	67.6 (3.3)
85+	53.0 (3.5)	67.7 (4.2)
<u>Sex</u>		
Male	57.5 (2.2)	69.8 (2.7)
Female	53.7 (1.9)	67.8 (2.4)
<u>Income</u>		
Below the poverty level	64.8 (3.5)	67.1 (4.8)
100-150% of the poverty level	58.5 (3.1)	68.7 (4.1)
150-200% of the poverty level	51.0 (3.8)	74.1 (4.7)
200-300% of the poverty level	50.5 (3.2)	69.7 (3.8)
over 300% of the poverty level	54.1 (3.3)	65.6 (4.0)
<u>Education</u>		
8 years or less	57.8 (2.9)	76.9 (3.5)
9-11 years	56.4 (3.5)	62.8 (4.5)
High school graduate	53.2 (2.6)	70.0 (3.2)
Some college	59.7 (3.8)	65.4 (4.9)
College graduate	49.9 (4.2)	61.4 (5.4)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	54.0 (1.5)	67.8 (1.9)
Black, Non-Hispanic	70.5 (3.7)	89.6 (3.2)
Hispanic	65.0 (8.7)	*
Other, Non-Hispanic	57.9 (9.9)	*
<u>Health Status</u>		
Excellent	58.5 (3.8)	62.0 (5.1)
Good	52.1 (2.4)	66.7 (3.0)
Fair	55.1 (2.5)	66.7 (3.2)
Poor	60.4 (3.7)	81.5 (3.8)
Hospitalized in last year	54.6 (2.9)	73.6 (3.1)
<u>Supplemental Coverage</u>		
Medicare only	64.8 (3.1)	76.7 (3.8)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	52.9 (1.6)	66.9 (2.0)

Table IV.2 - continued

Characteristics	Percent Usually Treated On Assignment By Regular Physician (N=1,318)	Percent Treated On Assignment On Last Visit To a Specialist (N=725)
<u>Region</u>		
Northeast	63.6 (2.9)	73.5 (3.5)
North Central	52.8 (2.6)	66.4 (3.4)
South	53.6 (2.4)	68.1 (3.1)
West	51.2 (4.0)	65.8 (5.1)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	59.4 (2.5)	68.9 (3.1)
Population under 1,000,000	53.3 (2.5)	72.4 (3.0)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	53.2 (3.1)	61.1 (4.1)
Population under 25,000	54.4 (4.2)	69.9 (5.4)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	53.2 (3.8)	63.7 (5.0)
<u>Health Manpower Shortage Area</u>		
Entire county	71.1 (5.9)	64.2 (8.3)
Part of the county	57.4 (1.9)	72.2 (2.3)
Not a shortage area	50.1 (2.4)	63.4 (3.1)
<u>Assignment Policy</u>		
No assignment program	55.2 (1.9)	68.9 (2.4)
Mandatory assignment	83.7 (6.8)	*
Means tested assignment by law	71.9 (6.7)	*
Voluntary assignment program	51.9 (2.3)	65.2 (2.9)
<u>Number of Years with Regular Source of Care</u>		
< 1 year	57.0 (5.1)	--
1 - 2 years	68.0 (3.3)	--
3 - 5 years	50.6 (3.3)	--
5 - 10 years	57.7 (3.2)	--
over 10 years	49.9 (2.3)	--

NOTES: *Indicates that there are fewer than 25 observations in the cell.

The standard error for each percentage is provided in parentheses.

The poverty level is defined as \$5,649 for an individual and \$7,126 for a couple (U.S. House of Representatives, 1988).

As expected, beneficiaries are also more likely to be treated on assignment by their regular source of care if they reside in a state with a mandatory or means-tested assignment program.

The data suggest that assignment experience with a regular source of care is only weakly associated with the beneficiary's ability to pay for care. Further, as discussed below, multivariate analyses show that simple comparisons of assignment by income class may overstate the extent to which physicians take beneficiary income into consideration. Sixty-five percent of respondents below the poverty level, and 59 percent of those between 100 and 150 percent of the poverty level, report that they are usually treated on assignment by their regular source of care, compared to 54 percent for those with incomes greater than 300 percent of the poverty level. Because many low-income beneficiaries reside in areas with high assignment rates, (such as the Northeast), however, the higher rate of assignment on their claims does not necessarily indicate that physicians take patients' economic status into consideration in billing decisions. And, while the reported rate of assignment is highest among respondents below the poverty level, the data imply that 35 percent of poor Medicare beneficiaries have a regular source of care who does not usually accept assignment.

By a margin of 17 percentage points, blacks are more likely than whites to report being treated on assignment by their regular source of care, and beneficiaries without supplemental insurance are 12 percentage points more likely to be treated on assignment than those with such coverage. Although disabled respondents under age 65 are more likely than the elderly to report being treated on assignment by their regular source of care, there is no apparent relationship between assignment experience with a regular source of care and health status. Fifty-nine percent of respondents who report their health as excellent report that they are usually treated on assignment by their regular source of care, compared to 60 percent for those who report their health as poor.

Specialist physicians are more likely to accept assignment on claims than are physicians who are the patient's regular source of care, and the relationships between assignment rates and beneficiary characteristics are somewhat different for the two types of providers. Although there is no apparent relationship between respondents' health status and reported assignment experience with physicians who are their regular source of care, we do observe such a relationship for specialists. Eighty-two percent of respondents in poor health report being treated on assignment on their last specialist visit, compared to 62 percent for those in excellent health and 67 percent for those in good or fair health. Beneficiaries are also more likely to report being treated on assignment on their last specialist visit if they are black or without supplemental insurance coverage. However, there is no apparent relationship between assignment experience with a specialist and either income or disability status.

The descriptive data in Tables IV.1 and IV.2 provide interesting insights into physician patterns of acceptance of assignment. However, there may be interactions of demographic variables that are not observable in simple descriptive comparisons that would be useful to a full understanding of Medicare beneficiaries' assignment experience. To investigate these interactions, a model was developed to explain individual Medicare beneficiaries' assignment experience as a function of beneficiary

and market area characteristics (Appendix Table D.9). The dependent variable in the model was specified as a binary indicator of whether or not the respondent reported being treated on assignment (i.e., =1 if treated on assignment, =0 otherwise), and the explanatory variables include the beneficiary and market area characteristics examined in the descriptive analysis above.⁹ Beneficiaries covered by Medicaid were excluded from the analysis, in order to focus on the relationship between beneficiary characteristics and assignment experience for the portion of the Medicare population for whom assignment is voluntary.

Results of the estimation of this model for assignment experience with the patient's regular source of care indicate that none of the demographic characteristics of beneficiaries are statistically significant in explaining whether assignment was accepted.¹⁰ While the estimated coefficients of the model are consistent with a slightly higher probability of assignment for blacks, low income beneficiaries, and those without supplemental insurance, these estimates are not statistically significant at conventional significance levels. The only explanatory variables that have a statistically significant effect on the probability that beneficiaries are treated on assignment by their regular source of care are geographic variables, with providers in the Northeast and in health manpower shortage areas being more likely to accept assignment.

Somewhat different results are obtained when the same equation is estimated for respondents' reported assignment experience with specialist physicians. There was a positive and significant relationship between acceptance of assignment and whether the patient was black, in poor health, and without supplemental insurance, which is consistent with the relationships observed above in the descriptive analysis. Interestingly, there was a negative and significant relationship between Medicare eligibility due to disability and acceptance of assignment by a specialist, and none of the geographic variables were statistically significant.

The overall results of this analysis of assignment experience of Medicare beneficiaries with their regular source of care and with specialists indicate that:

1. Beneficiaries are more likely to report that assignment was accepted on their last visit to a specialist than that their regular source of care "usually" accepts assignment.
2. There is some variation in assignment rates that suggests that physicians may consider patients' health status and ability to pay. However, these variations were not significant for experience with the physician that is the regular source of care, and it appears that most of the variation is associated with geographic patterns of assignment rather than with beneficiaries' characteristics.

⁹ Respondents who did not report whether they were treated on assignment were excluded from the analysis.

¹⁰ Significance tests were conducted at the 5 percent level using a two-tailed test. Conclusions about the statistical significance of the model coefficients did not depend on whether ordinary least squares or probit estimation procedures were employed.

3. Specialists appear to be more likely to consider patients' health status and supplemental insurance coverage in determining whether to accept assignment than do physicians who are the regular source of care.

Although these findings provide useful insights into beneficiaries' overall assignment experience and the relationships between assignment rates and beneficiary characteristics, it is important to keep in mind that the analysis has been based on beneficiaries' recollection of their assignment experience. More complete and reliable data on respondents' actual assignment experience will be available in the future when the survey data are merged with Part B claims data. This will enable PPRC staff to conduct a more thorough investigation of the relationships between beneficiary characteristics and survey respondents' actual claims history.

C. Beneficiary Costs On Their Most Recent Bill

During the interview, survey respondents who had filed a Medicare claim for physician services during the past two years and who were not covered by Medicaid were questioned about the costs associated with their most recent claim. Respondents were asked to report the physician's total charge, the amount paid by Medicare, the amount paid by other insurance, and the amount of their out-of-pocket cost. Respondents were also questioned as to how much of their out-of-pocket cost was due to balance billing. To assist respondents in answering these questions, a one-page form identifying the various types of costs to be covered in the survey was included in the advance mailing to sample members (see Appendix C).

A substantial number of respondents were unable or unwilling to report any information on the costs from their most recent claim. Of the 1,538 non-Medicaid respondents who had filed at least one claim in the past two years, only 920 (60 percent) were able to answer any questions pertaining to the costs on their most recent claim, and only 576 (37 percent) were able to report their out-of-pocket costs. Respondents who reported their out-of-pocket costs tended to be somewhat younger, better educated, with higher incomes, and in better health than those who did not (Appendix Table D.11). In addition, whites were somewhat more likely than nonwhites to report their out-of-pocket costs.

Given the relatively low rate of response on the question pertaining to out-of-pocket costs, and the fact that respondents to this question tend to differ from nonrespondents, the data collected on out-of-pocket costs are not reported here.

D. Financial Access To Care

The evidence that assignment decisions by physicians are not primarily influenced by Medicare beneficiaries' ability to pay and health status suggests that some Medicare beneficiaries may face financial barriers to obtaining needed health services. To investigate this issue, beneficiaries were asked about whether they had Medicare supplemental coverage or were Medicaid eligible, and whether they had deferred seeking care for any medical condition in the past year because of costs. In addition, beneficiaries were asked whether they had been denied care or had difficulty finding a physician due to financial reasons.

The majority of beneficiaries had Medicare supplemental insurance or were Medicaid eligible (Table IV.3). However, 20 percent of the sample reported that they relied on Medicare as their sole third-party payer. Beneficiaries most likely to rely on Medicare only were:

- o disabled
- o age 85 or over
- o low income
- o non-white or Hispanic
- o in poor health
- o less educated

Thirty-five percent of beneficiaries below the poverty level, and 40 percent of those eligible for Medicare due to disability, were not covered by either supplemental insurance or Medicaid. In contrast, only 10 percent of those with incomes above 300 percent of the poverty level relied on Medicare as their sole third-party payer.

Seven percent of survey respondents reported that they had put off seeking care for any condition in the past year because of the cost, and 3.3 percent put off care for a condition they believed was serious (Table IV.4). Generalized to the total Medicare population, this suggests that about 2.2 million beneficiaries may have put off going to the doctor because of cost in 1988, and 1.1 million may have put off care for a problem that they believed was serious. Those who put off going to a doctor due to cost were more likely to be disabled, poor, less educated, black or Hispanic, in poor health, hospitalized in the past year, residents of the South, and to have Medicare only as a payer (Appendix Table D.13). Nineteen percent of beneficiaries eligible for Medicare due to disability, 14 percent of those stating their health was poor, and 11 percent of those with incomes below the poverty level, reported that they had put off seeking care because of the cost. A very small proportion of the sample (0.3 percent) indicated that they had been denied care by a physician during the past year for financial reasons. About 5 percent of Medicaid eligible Medicare beneficiaries reported that they had trouble finding a physician who would accept Medicaid.

E. Discussion

The analysis of the assignment experience of Medicare beneficiaries indicates that a majority of beneficiaries obtain care from physicians who usually accept assignment on Medicare claims. Specialists appear to be even more likely to accept assignment than physicians who are the patients' regular source of care. However, it does not appear that the beneficiaries' regular sources of care are particularly responsive to the characteristics of patients that may indicate inability to pay in making assignment decisions. Those who are sicker and poorer are not significantly more likely to report that their regular physician usually accepts assignment than are patients who are in excellent health and have higher incomes. Specialist physicians seem to be somewhat more responsive to beneficiaries' health status and insurance coverage than regular physicians in deciding whether to accept assignment.

The fact that Medicare beneficiaries who rely solely on Medicare as a payer for health services also are much more likely to have low income, a recent hospitalization, and to report poor health indicates that physicians' unresponsiveness

TABLE IV.3
PERCENT OF RESPONDENTS WITH MEDIGAP AND MEDICAID COVERAGE

Characteristics	Percent with Medigap But No Medicaid		Percent with Medicaid But No Medigap		Percent with Medigap and Medicaid		Percent with Medicare Only	
Total	71.1	(1.0)	6.7	(0.6)	1.5	(0.3)	20.0	(0.9)
<u>Age</u>								
< 65 (disabled)	36.9	(3.5)	19.9	(2.9)	2.6	(1.2)	39.6	(3.6)
65-74	76.5	(1.5)	3.8	(0.7)	1.2	(0.4)	17.8	(1.3)
75-84	75.5	(2.0)	5.9	(1.1)	1.6	(0.6)	16.2	(1.7)
85+	60.6	(2.1)	11.6	(1.4)	2.0	(0.6)	25.1	(1.9)
<u>Sex</u>								
Male	71.3	(1.6)	5.0	(0.8)	0.9	(0.3)	21.9	(1.5)
Female	70.9	(1.3)	7.9	(0.8)	1.9	(0.4)	18.6	(1.1)
<u>Income</u>								
Below the Poverty Level	36.9	(2.1)	23.6	(1.9)	4.3	(0.9)	34.5	(2.1)
100-150% of the Poverty Level	64.4	(2.2)	7.3	(1.2)	1.9	(0.6)	25.1	(2.0)
150-200% of the Poverty Level	75.2	(2.7)	2.3	(0.9)	1.5	(0.8)	20.5	(2.5)
200-300% of the Poverty Level	89.3	(1.8)	0.4	(0.4)	0.0	(0.0)	10.3	(1.8)
over 300% of the Poverty Level	89.1	(1.9)	0.0	(0.0)	0.0	(0.0)	10.1	(1.8)
<u>Race/Ethnic Background</u>								
White, Non-Hispanic	75.8	(1.2)	4.9	(0.6)	1.4	(0.3)	17.2	(1.0)
Black, Non-Hispanic	37.8	(1.7)	18.4	(1.4)	1.9	(0.5)	40.6	(1.8)
Hispanic	36.3	(6.3)	26.2	(5.7)	3.7	(2.5)	33.8	(6.2)
Other, Non-Hispanic	56.5	(6.6)	3.7	(2.5)	0.9	(1.3)	36.1	(6.4)
<u>Health Status</u>								
Excellent	76.8	(2.4)	3.3	(1.0)	1.1	(0.6)	18.0	(2.2)
Good	75.5	(1.7)	4.2	(0.8)	1.4	(0.5)	18.5	(1.5)
Fair	70.4	(1.9)	7.8	(1.1)	1.5	(0.5)	19.3	(1.6)
Poor	55.1	(2.7)	14.1	(1.9)	2.7	(0.9)	27.3	(2.4)
Hospitalized in last year	71.1	(2.1)	9.1	(1.4)	1.4	(0.6)	17.5	(1.8)
<u>Region</u>								
Northeast	73.1	(2.2)	3.9	(1.0)	1.8	(0.7)	20.6	(2.0)
North Central	77.5	(1.9)	3.7	(0.8)	1.8	(0.6)	16.1	(1.6)
South	67.7	(1.7)	8.5	(1.0)	1.4	(0.4)	21.4	(1.5)
West	63.6	(3.0)	12.3	(2.1)	0.9	(0.6)	23.3	(2.6)
<u>Education</u>								
8 years or less	53.8	(2.0)	14.3	(1.4)	2.0	(0.6)	28.7	(1.8)
9-11 years	72.7	(2.5)	5.9	(1.3)	1.2	(0.6)	19.6	(2.3)
High School graduate	78.9	(1.8)	3.6	(0.8)	1.3	(0.5)	16.0	(1.7)
Some college, no degree	79.8	(2.7)	2.4	(1.0)	1.1	(0.7)	16.3	(2.4)
College degree	84.2	(2.7)	1.1	(0.8)	0.6	(0.5)	13.0	(2.5)
<u>Urban/Rural</u>								
<u>Metropolitan Areas</u>								
Population 1,000,000 and over	71.3	(1.7)	6.5	(0.9)	0.5	(0.3)	20.6	(1.6)
Population under 1,000,000	73.2	(1.8)	5.9	(0.9)	2.1	(0.6)	18.1	(1.5)
<u>Nonmetropolitan Areas</u>								
Population 25,000 and over	69.3	(2.3)	6.1	(1.2)	2.2	(0.7)	21.5	(2.0)
Population under 25,000	68.1	(3.1)	9.5	(2.0)	1.4	(0.8)	20.5	(2.7)

NOTE: The standard error for each percentage is provided in parentheses.

TABLE IV.4
FINANCIAL ACCESS TO CARE

	Percent
Percent of Respondents Who Put Off Seeking Care In the Past Year Because of the Cost (N=1,994)	
-- Any condition	6.9 (0.6)
-- Serious condition	3.3 (0.4)
Percent of Respondents Denied Care in the Past Year for Financial Reasons (N=1,994)	
-- Any condition	0.3 (0.1)
-- Serious condition	0.2 (0.1)
Percent of Medicare-Medicaid Recipients Who Have Had Trouble Finding a Physician Who Would Accept Medicaid	
-- Regular source of care (N= 180)	4.5 (1.7)
-- Specialist (N= 101)	4.1 (2.2)
-- No regular source of care (N=11)	4.9 (4.2)

NOTE: The standard error for each percentage is provided in parentheses.

to beneficiaries' ability to pay may impose substantial financial burdens on some beneficiaries or cause them to avoid seeking care.

V. "SHOEBOXING" OF MEDICARE CLAIMS

Some bills incurred by Medicare beneficiaries for covered Part B services never result in the filing of a Medicare claim. For example, some beneficiaries treated on an unassigned basis may choose not to file a claim if their total covered expenses for the year are less than the annual Part B deductible (currently \$75). The fact that a claim is not filed in such cases does not affect either the beneficiary's out-of-pocket costs or Medicare program costs. However, there may be some beneficiaries who incur bills for covered services which exceed the Part B deductible, but who do not file claims because of confusion, misunderstanding, or other reasons. In these cases, beneficiaries may end up paying out-of-pocket for care that their Medicare insurance should be paying for.

The fact that some bills for Medicare-covered services are never submitted to Medicare is commonly referred to as the "shoeboxing" phenomenon. To examine the extent of this phenomenon, survey respondents were asked whether they had ever paid a medical bill themselves in the past year rather than file a Medicare claim, and if so, why. Respondents who reported paying bills themselves rather than filing claims were also asked the total amount of such bills. In this section, we present the findings from this portion of the survey, and we use these data to estimate the extent of burden borne unnecessarily by beneficiaries and estimate the increase in Medicare expenditures that would be incurred if physicians were required to submit all claims for Medicare services, regardless of whether they accept assignment.

A. Extent Of The "Shoeboxing" Phenomenon

A total of 9.1 percent of all survey respondents reported that they had paid at least one medical bill themselves in the past year rather than file a Medicare claim (Table V.1). Of these individuals, 36.7 percent indicated that the total amount of all the bills they paid themselves was \$75 or less, 31.4 percent indicated that the amount they paid was over \$75, and 31.8 percent did not report a dollar amount. For those reporting unsubmitted bills greater than \$75, the mean reported amount of all such bills was \$315. The maximum amount that any individual reported as having paid rather than file a claim was \$2,576.¹¹

Individuals who indicated that they had paid a bill themselves rather than file a Medicare claim reported a variety of reasons for their behavior. Some respondents indicated that they had not filed a claim because the amount of the bill was very

¹¹ In constructing Table V.1, beneficiaries covered by Medicaid were coded as having no unsubmitted claims.

TABLE V.1
"SHOEBOXING" OF MEDICAL BILLS

Item	Percent/Amount
Percent who paid a bill themselves in the past year rather than file a claim	9.1
Amount paid (among those with a positive amount)	
Mean	\$164
Mean for those with a value exceeding \$75	\$315
Maximum	\$2,576
Percent distribution	
1 - 75	36.7
76 - 100	7.1
101 - 250	17.2
251 - 500	2.6
501 - 750	1.9
Over 750	2.6
Don't know	31.8

small or was for a service not covered by Medicare (e.g., a physical exam), while others indicated that they had difficulty understanding Medicare claim forms. Among beneficiaries reporting unsubmitted bills from the prior year exceeding \$75, the most commonly cited reasons for not submitting a claim are that filing the claim is too complicated or too time consuming, although a number of other reasons were given as well. A list of all the reasons for not filing claims given by individuals in our sample with unsubmitted bills exceeding \$75 is provided in Appendix B.

The probability of having unsubmitted bills from the prior year exceeding \$75 did not vary with reported income, and was either not related to, or very weakly related to, the other beneficiary characteristics examined. For example, 3 percent of all respondents with reported incomes below the poverty level and not covered by Medicaid reported having unsubmitted bills from the prior year exceeding \$75, which is identical to the corresponding percentage for beneficiaries with incomes above 300 percent of the poverty level (see Appendix Table D.14). In addition, the likelihood of having unsubmitted bills exceeding \$75 did not depend on whether the respondent was covered by supplemental insurance. Thus, beneficiaries for whom high medical costs would be expected to impose the greatest financial hardship appear equally as likely as more affluent beneficiaries to pay medical bills themselves rather than file claims.¹²

Concern that the "shoeboxing" phenomenon is causing some beneficiaries to incur unnecessarily high out-of-pocket costs played a significant part in leading PPRC to recommend to the Congress that physicians be required to submit all claims directly to Medicare (at no additional cost to the beneficiary), regardless of whether they accept assignment. This policy would also increase the timeliness and accuracy of claims submissions, reduce carriers' administrative costs, and generally improve the quality of claims data used for program management (PPRC, 1989). In the following section, data collected from the survey are used to estimate the implications of such a policy for Medicare program expenditures.

B. Implications For A Direct Claims Submission Policy

To use the survey data to estimate the additional Medicare expenditures that would be incurred if all currently unsubmitted bills were submitted to Medicare, several assumptions must be made. The first assumption we make is that none of the respondents for whom unsubmitted bills for the year totaled \$75 or less would contribute to the increase in Medicare expenditures under such a policy. That is, we are assuming that these individuals paid bills themselves rather than file claims because either (1) they did not meet their Part B deductible, or (2) the bills they paid were for noncovered services such as physical exams. While this assumption is probably valid for most, if not all, of the respondents with unsubmitted bills totaling \$75 or less, it is conceivable that some of these individuals may have actually met their deductible but decided not to submit a claim for a small bill because the dollar amount was not worth the trouble. To the extent that this is true, the estimates presented below will underestimate the increase in Medicare expenditures that would be observed under a policy of direct claims submission.

¹² Because of the small sample of respondents reporting unsubmitted bills exceeding \$75, we did not examine the relationship between beneficiary characteristics and the dollar amount of the unsubmitted bills.

It is also necessary to make some assumptions about the respondents who did not report the dollar amount of their unsubmitted bills. Our data indicate that 31.8 percent of all individuals who indicated that they had paid at least one bill themselves in the past year rather than file a claim did not report the dollar value of the unsubmitted bill(s). Cost estimates are presented below under two alternative assumptions about these individuals:

- o Assumption A: Individuals who did not report the dollar value of their unsubmitted bills incurred costs which exhibit the same mean and the same distribution as individuals who reported such costs. Thus, it is assumed that 46.1 percent of these individuals incurred costs greater than \$75, and that the mean cost among individuals with costs exceeding \$75 was \$315.
- o Assumption B: Individuals who did not report the dollar value of their unsubmitted bills each incurred costs of \$75 or less.

Assumption A may initially appear to be the more realistic of the two. However, to the extent that individuals who incur large out-of-pocket costs are more likely to remember and report such costs in a survey, Assumption A would lead us to overestimate the total value of unsubmitted bills for individuals who did not report their costs. The actual costs incurred by such individuals may in fact lie somewhere between the values implied by Assumptions A and B. By estimating cost impacts under each of these alternative assumptions, we can determine the sensitivity of our estimates to these assumptions, and derive a range of cost estimates within which the best estimate implied by our data is likely to fall.

Given that there are approximately 31.9 million Medicare beneficiaries covered under Part B, the number of beneficiaries nationally for whom the total value of unsubmitted bills from the previous year exceeded \$75 can be estimated as follows:

$$\text{Assumption A: } (.314 + .147) * (.091) * (31,900,000) = 1.3 \text{ million}$$

$$\text{Assumption B: } (.314) * (.091) * (31,900,000) = 0.9 \text{ million}$$

where we have rounded the final estimates to the nearest hundred thousand. The sources of the numbers used in these calculations are as follows:

- o 9.1 percent of the survey sample indicated that they had at least one bill in the past year which they did not submit to Medicare.
- o 31.4 percent of those who reported having at least one unsubmitted bill in the past year reported that the total amount of their unsubmitted bill(s) exceeded \$75.

- o 14.7 percent of those who reported having at least one unsubmitted bill in the past year did not report the dollar value of their unsubmitted bills, but are assumed under Assumption A to have bills which exceeded \$75.¹³

To estimate the increase in Medicare expenditures that would result from a direct claims submission policy, we assume that individuals with unsubmitted bills totaling more than \$75 did not file any claims during the year. This would appear to be a reasonable assumption for most of these individuals, based on the reasons they cited for not filing claims (see Appendix B). The implication of this assumption is that, in estimating the additional Medicare costs that would be incurred if these bills all resulted in claims being filed, the Part B deductible must be applied before applying the standard 20 percent cost-sharing.

For individuals in our sample who reported having unsubmitted bills in the past year totaling more than \$75, the mean reported amount of all such bills was \$315. To use the survey data to estimate the increase in Medicare expenditures that would be incurred under a direct claims submission policy, we must first estimate the proportion of the reported charges on survey respondents' unsubmitted bills that would have been approved under Medicare. Two issues must be considered in this regard. First, as reported in the *Medicare 1988 Reasonable Charge Denial Report*, approximately 14 percent of all the billed charges submitted under Part B last year were disallowed by Medicare for various reasons (i.e., the services were not covered, were considered medically unnecessary, etc.). It is therefore reasonable to expect that some fraction of the charges on the unsubmitted bills reported by the survey sample would have been disallowed. In the absence of any specific information on what that denial rate would have been, we assume that the 14 percent national denial rate on submitted bills would have applied to unsubmitted bills as well.

The second factor we must take into account is that, since the bills in question were not accepted on assignment, the Medicare approved charges would most likely have been below the actual charges. The adjustment factor we use to account for this is the charge reduction rate on unassigned Part B claims reported by HCFA -- that is, the average percentage difference between the approved charge and the actual charge on unassigned claims. Currently, the charge reduction rate on unassigned Part B claims is approximately 25 percent.

Applying the 14 percent denial rate and the 25 percent charge reduction rate to \$315, which is the average reported amount of unsubmitted bills for individuals for whom such bills exceeded \$75, yields an estimated value of average approved charges on such bills of \$203. The cost estimates presented below are based on this assumption about the average value of approved charges on unsubmitted bills. However, since the methodology for deriving the cost estimates is laid out very clearly, readers are able to test the sensitivity of the reported cost estimates to alternative assumptions.

¹³ Among respondents who reported at least one unsubmitted bill in the past year, 31.8 percent did not report the dollar amount of such bills. Under Assumption A, it is assumed that 46.1 percent of these individuals had bills which exceeded \$75.

Based on the assumptions outlined above, the additional Medicare expenditures that would be incurred under a direct claims submission policy may be estimated as follows:

Assumption A:

$$\begin{aligned}\text{additional payments} &= (1.3 \text{ million}) * (.80) * (203 - 75) \\ &= \$133 \text{ million}\end{aligned}$$

Assumption B:

$$\begin{aligned}\text{additional payments} &= (0.9 \text{ million}) * (.80) * (203 - 75) \\ &= \$92 \text{ million}\end{aligned}$$

The first term in each of these equations represents an estimate of the number of beneficiaries nationally whose unsubmitted bills for the year exceeded \$75, as derived above.

The estimates presented above suggest that the increase in Medicare payments due to beneficiaries that would result under a policy of direct claims submission would be in the range of \$92 million to \$133 million. Given that total Part B expenditures under Medicare were approximately \$31.5 billion in 1988, these estimates imply percentage increases in total Part B expenditures in the range of 0.3 to 0.4 percent. In part, this increase in program payments would be offset by the savings that could accrue from reduced processing and review time now required to handle incomplete or otherwise problematic claims submitted by beneficiaries (PPRC, 1989).

While these estimates provide useful insights into the potential magnitude of the increase in Medicare expenditures that would result from a direct claims submission policy, the estimates should be interpreted with caution for several reasons. First, the estimates are based on unverified, self-reported cost data obtained in a telephone survey of beneficiaries. Second, nearly one-third of all respondents who indicated that they had paid bills themselves rather than file a claim did not provide information on the total costs associated those bills. It was therefore necessary to estimate costs for those individuals based on data obtained for individuals who did report costs. Third, we were required to make some assumptions about whether sample members had filed any claims during the year and whether they had met their Part B deductible, since reliable information on this was not available. Fourth, since the reported costs associated with unsubmitted bills reflect actual charges rather than Medicare approved charges, it was necessary to make an assumption about the relationship between the two. Finally, it is important to emphasize that the cost estimates presented above are based on a "static" analysis which ignores any potential behavioral response to the projected policy change on the part of either beneficiaries or providers. Despite these limitations, however, the data and methodology presented above provide evidence that beneficiaries are paying significant amounts for care that should be paid for by Medicare.

VI. BENEFICIARIES' SELECTION OF PHYSICIANS

Beneficiaries who receive care from Medicare participating physicians can limit their out-of-pocket costs on covered services, since PAR physicians are not allowed to "balance bill" their patients. However, the results presented above in Section III indicate that only 52 percent of all survey respondents had ever heard of the PAR program and only 25 percent knew that PAR physicians accept assignment on all claims. Furthermore, levels of awareness and understanding of the PAR program were lowest among those beneficiaries for whom high medical expenses are expected to impose the greatest financial hardship -- i.e., low income beneficiaries and those without supplemental insurance.

One policy option to be considered as a means of reducing beneficiary out-of-pocket costs is an educational campaign to more adequately inform beneficiaries of the PAR program and assist them in finding PAR physicians. However, the success of such a strategy would depend in part on the extent to which beneficiaries would act on the information provided and on beneficiaries' willingness to switch from their current physician to a PAR physician. To investigate this issue, the survey included a series of questions on beneficiaries' selection of physicians and their willingness to change physicians.

A. Willingness To Change Physicians: An Overview

Only 9 percent of all survey respondents indicated that they had changed physicians in the past year (Table VI.1). The most common reasons given for changing physicians, each of which were cited by approximately 2 percent of survey respondents, were (1) that the physician had died, retired, or moved, and (2) that the respondent was dissatisfied with the quality of care or the physician's personality. Less than 1 percent of all respondents indicated that they had changed physicians in the past year for reasons relating to cost.

The survey also questioned beneficiaries about their willingness to change physicians in the future. Respondents who reported having a regular source of care who does not always accept assignment were asked whether they would be willing to switch to a PAR physician. To elicit this information, respondents were specifically asked whether they would consider switching if they could find a physician who would always file the claim and never charge more than the Medicare approved amount. Respondents with a regular source of care who had seen a specialist in the past two years, and who were not treated on assignment on their last visit with a specialist, were also asked whether they would consider switching from that provider to a PAR specialist. Finally, beneficiaries who did not have a regular source of care and who were not treated on assignment on their last physician visit (within the past two years) were asked whether they would be willing to switch from that physician to a PAR physician.¹⁴

¹⁴ Survey respondents covered by Medicaid were not questioned about their willingness to switch to a PAR physician, since assignment is mandatory for this segment of the Medicare population. Thus, respondents covered by Medicaid have been excluded from the analyses discussed in the remainder of this chapter.

TABLE VI.1
PERCENT OF RESPONDENTS WHO CHANGED PHYSICIANS IN THE PAST YEAR

	Percent (N= 1,994)
Total Percent who changed	9.4 (0.7)
Percent who changed for the following reasons:	
– Doctor died, retired, or moved	1.9 (0.3)
– Respondent moved	0.5 (0.2)
– Former doctor too expensive	0.3 (0.1)
– Switched to a doctor who accepts assignment	0.3 (0.1)
– Dissatisfied with convenience of former doctor	0.4 (0.2)
– Dissatisfied with quality of care or doctor's personality	1.9 (0.3)
– Need a specialist or more qualified doctor	1.1 (0.3)
– Other	2.9 (0.4)
– Don't know	0.2 (0.1)

NOTE: The standard error for each percentage is provided in parentheses.

Beneficiaries' responses concerning their willingness to switch to a PAR physician are summarized in Table VI.2. Only 9 percent of respondents with a regular source of care who does not always accept assignment indicated that they would definitely switch to a PAR physician, and 21 percent indicated that they would consider switching. There was a somewhat greater willingness to switch from the most recent specialist seen, with 16 percent of respondents indicating that they would definitely switch to a PAR specialist and 18 percent indicating that they would consider switching. Beneficiaries without a regular source of care also indicated a somewhat greater willingness to switch, with 13 percent indicating that they would definitely switch from the most recent physician seen and 29 percent indicating that they would consider switching.

A substantial number of respondents indicated that they would not consider switching to a PAR physician. Among respondents with a regular source of care who does not always accept assignment, 50 percent indicated that they would not be willing to switch from that physician to a PAR physician. Forty-six percent of those who had been treated on an unassigned basis by a specialist in the past two years indicated that they would not consider switching to a PAR specialist. There was substantial reluctance to switch physicians even among beneficiaries without a regular source of care, with 45 percent of such respondents indicating that they would not consider switching from the most recent physician seen.¹⁵

B. Willingness To Change Physicians, By Beneficiary Characteristics

To determine what types of beneficiaries are most likely to switch to a PAR physician, we examined the relationship between beneficiary characteristics and the reported willingness to switch (Table VI.3). For the purposes of this analysis, respondents who indicated that they would definitely switch and those who indicated that they would consider switching were combined into a single category. Throughout the remainder of this section, these two categories of respondents are referred to as being potentially willing to switch.

The beneficiary characteristics which are most strongly associated with a potential willingness to switch from a regular source of care are age, disability status, race, number of years with the provider, gender, and geographic region. Examining the variation in continued responses across age groups, we find that 61 percent of disabled respondents under age 65 are potentially willing to switch from their regular source of care, while only 30 percent of respondents between the ages of 65 and 84, and 18 percent of respondents age 85 and over, are potentially willing to switch. Large differences are also observed between blacks and whites, with blacks being nearly twice as likely as whites to report a potential willingness to switch from their regular source of care (57 percent versus 30 percent).

Not surprisingly, the number of years that a beneficiary has been seeing a regular source of care is strongly associated with the potential willingness to switch from

¹⁵ Since some respondents indicated that they were not sure if they would switch, the percentages who would definitely switch, would consider switching, and would not consider switching do not sum to 100.

TABLE VI.2
 RESPONDENT'S WILLINGNESS TO SWITCH TO A PARTICIPATING PHYSICIAN

	Percent Who Would Definitely Switch	Percent Who Would Consider Switching	Percent Who Would Not Switch
<u>Respondents with a Regular Source of Care</u>			
- Willingness to switch from regular source (N=601)	8.8 (1.2)	21.4 (1.7)	50.2 (2.1)
- Willingness to switch from most recent specialist seen (N=517)	16.2 (1.7)	17.7 (1.8)	46.3 (2.3)
<u>Respondents with No Regular Source of Care</u>			
- Willingness to switch from most recent physician seen (N=43)	13.1 (5.3)	29.0 (7.1)	45.2 (7.8)

NOTE: The standard error for each percentage is provided in parentheses.

TABLE VI.3

PERCENT OF RESPONDENTS WHO WOULD DEFINITELY SWITCH, OR CONSIDER SWITCHING, TO A PARTICIPATING PHYSICIAN

Characteristics	Regular Source of Care (N = 601)	Specialist (N = 517)
Total	30.2 (1.9)	33.9 (2.2)
<u>Respondent</u>		
Self	32.0 (2.2)	33.7 (2.4)
Proxy	20.4 (4.2)	35.1 (5.1)
<u>Age</u>		
< 65 (disabled)	60.5 (8.7)	49.5 (8.5)
65-74	30.1 (2.7)	35.5 (3.2)
75-84	29.5 (3.6)	31.0 (4.0)
85+	17.5 (3.8)	24.6 (4.4)
<u>Sex</u>		
Male	36.0 (3.2)	37.4 (3.4)
Female	26.1 (2.4)	31.2 (2.8)
<u>Income</u>		
Below the poverty level	31.7 (5.3)	47.9 (5.6)
100-150% of the poverty level	32.5 (4.6)	35.7 (5.0)
150-200% of the poverty level	33.4 (5.0)	28.7 (6.2)
200-300% of the poverty level	35.9 (4.6)	34.0 (4.7)
over 300% of the poverty level	30.2 (4.3)	34.4 (4.7)
<u>Education</u>		
8 years or less	30.7 (4.0)	38.6 (4.6)
9-11 years	34.5 (5.3)	33.9 (5.3)
High school graduate	32.4 (3.6)	30.0 (4.0)
Some college	27.4 (5.3)	33.0 (5.8)
College graduate	22.8 (4.8)	37.5 (5.8)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	29.6 (2.1)	32.8 (2.3)
Black, Non-Hispanic	57.4 (6.8)	48.7 (6.5)
Hispanic	*	*
Other, Non-Hispanic	*	*
<u>Health Status</u>		
Excellent	33.8 (5.3)	27.2 (5.4)
Good	26.6 (3.0)	37.4 (3.8)
Fair	33.0 (3.5)	34.3 (3.8)
Poor	32.0 (5.3)	33.1 (5.4)
<u>Hospitalized in last year</u>	27.9 (3.7)	28.7 (3.8)
<u>Supplemental Coverage</u>		
Medicare only	35.4 (4.7)	35.8 (4.6)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	29.2 (2.1)	33.6 (2.5)
<u>Region</u>		
Northeast	24.9 (4.2)	25.4 (4.7)
North Central	22.0 (3.3)	27.8 (3.7)
South	37.2 (3.3)	44.6 (3.9)
West	36.4 (5.6)	33.9 (5.5)

Table VI-3 - continued

Characteristics	Regular Source of Care (N=601)	Specialist (N=517)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	26.0 (3.4)	33.1 (3.7)
Population under 1,000,000	30.7 (3.4)	34.1 (3.8)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	36.2 (4.2)	39.8 (5.1)
Population under 25,000	28.4 (5.3)	27.9 (5.8)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	33.5 (5.1)	30.1 (5.6)
<u>Health Manpower Shortage Area</u>		
Entire county	*	25.9 (8.4)
Part of the county	29.8 (2.7)	28.8 (2.8)
Not a shortage area	31.8 (3.0)	43.2 (3.7)
<u>Assignment Policy</u>		
No assignment program	31.7 (2.6)	37.4 (2.9)
Mandatory assignment	*	*
Means tested assignment by law	*	*
Voluntary assignment program	29.0 (3.0)	30.8 (3.4)
<u>Number of Years with Regular Source of Care</u>		
< 1 year	50.9 (7.4)	--
1 - 2 years	24.4 (5.1)	--
3 - 5 years	24.7 (4.1)	--
5 - 10 years	33.7 (4.7)	--
over 10 years	28.4 (3.1)	--

* Indicates that there are fewer than 25 observations in the cell.

NOTE: The standard error for each percentage is provided in parentheses.

that provider. Fifty-one percent of respondents who have had a regular source of care for less than a year indicated a potential willingness to switch to a PAR physician, but that figure drops dramatically among respondents who have had a regular source of care for more than a year. In fact, beneficiaries who have had a regular source of care for 1-2 years reported a similar willingness to switch as those who have had a regular source of care for over 10 years, with 24 percent of the former and 28 percent of the latter reporting a potential willingness to switch.¹⁶ These findings suggest that in many cases the closeness of the physician-patient relationship that is responsible for beneficiary reluctance to switch to a PAR physician is formed in the first 1-2 years of that relationship.

Other factors which appear to be associated with the potential willingness to switch from a current regular source of care to a PAR physician are gender and geographic region. Males are somewhat more likely than females to indicate a potential willingness to switch, and residents of the West and South reported a greater willingness to switch than residents of other regions. However, the magnitude of these differences is considerably smaller than those reported above for beneficiary subgroups defined on the basis of age, disability status, race, and number of years with the provider.

One might have expected that low income beneficiaries would have a greater than average willingness to switch from a regular source of care to a PAR physician, since balance billing is more likely to impose a financial hardship on these individuals. However, the findings in the table reveal that beneficiaries' potential willingness to switch physicians remains fairly constant across the five income categories examined. Respondents with reported incomes below the poverty level and not on Medicaid indicated a potential willingness to switch from their regular physician to a PAR physician at essentially the same rate as respondents with incomes higher than 300 percent of the poverty level. In addition, beneficiaries without supplemental insurance coverage do not appear to be significantly more willing to switch to a PAR physician than those with such coverage.

Willingness to switch from a regular source of care to a PAR physician also does not vary with self-reported health status. Respondents who reported their health as excellent were equally as likely to indicate a potential willingness to switch as were those who reported their health as poor. While beneficiaries in poor health are more likely to be burdened with high medical bills, and thus may have a greater financial incentive to switch to a PAR physician, these beneficiaries are also likely to have developed a particularly close relationship with their regular source of care, thus increasing their reluctance to switch. There are thus offsetting factors influencing the choice of physician among beneficiaries in poor health, and the findings from the survey indicate that these individuals are no more or less likely than the average beneficiary to indicate a potential willingness to switch to a PAR physician.

The preceding descriptive analysis has identified the types of beneficiaries who are most likely to indicate a potential willingness to switch from their regular source of

¹⁶ This difference between respondents who have had a regular physician for 1-2 years and those who have had a regular physician for over 10 years is not statistically significant at conventional levels of significance.

care to a PAR physician. To determine which beneficiary characteristics are most influential in determining the willingness to switch, a multivariate regression analysis was conducted. A model was specified in which the dependent variable is a binary indicator of potential willingness to switch (= 1 if the respondent is potentially willing to switch; =0 otherwise), and the independent variables are defined to include the various beneficiary characteristics included in the descriptive analysis.¹⁷ The results, presented in Appendix Table D.15, indicate that beneficiary characteristics which have a positive and statistically significant effect on the probability of being potentially willing to switch from a regular source of care to a PAR physician are: being black, male, disabled and under age 65, and having had a regular source of care for less than a year. Other beneficiary characteristics included in the model, such as income, education, self-reported health status, supplemental insurance coverage, and geographic region do not have a statistically significant effect (at the 5 percent level) on the probability that a beneficiary is potentially willing to switch from a regular source of care.

The finding that gender is a statistically significantly determinant of the potential willingness to switch from a regular source of care to a PAR physician may suggest that males tend to have weaker attachments to physicians.¹⁸ The finding that race and disability status, but not income, are statistically significant determinants of the potential willingness to switch to a PAR physician deserves further investigation. One potential explanation for this finding is that blacks and the disabled have less access to quality health care than other beneficiaries with comparable incomes, and are thus less satisfied with their current regular source of care.

An analysis comparable to that described above was conducted to determine which types of beneficiaries are most likely to be potentially willing to switch from the most recent specialist seen to a PAR specialist. Descriptive results are presented in the right hand column of Table VI.3 above. In general, the relationships between beneficiary characteristics and willingness to switch specialists are similar to those described above, but the strength of the associations appear to be weaker. For example, while blacks are more likely than whites to indicate a potential willingness to switch specialists, the magnitude of the black-white differential is smaller than that found when examining the willingness to switch from a regular source of care.

One notable difference from the relationships observed above is that respondents below the poverty level and not on Medicaid are more likely than respondents in other income classes to indicate a potential willingness to switch specialists.

A multivariate regression model analogous to that described above was estimated to determine which factors are most influential in determining beneficiaries' willingness to switch specialists (see Appendix Table D.15). Unlike the model described above, however, there is no explanatory variable measuring the length of

¹⁷ As is true for the multivariate analyses conducted in previous chapters, the model was estimated using both ordinary least squares and maximum likelihood probit analysis. The conclusions regarding which of the beneficiary characteristics have a statistically significant effect on willingness to switch physicians were invariant to the choice of estimation methodology.

¹⁸ The literature on differences in satisfaction with medical care and the use of medical services has shown some significant gender-related differences (see for example Hulka, et al., 1975 and Marcus and Siegel, 1982).

time the respondent has been seeing the specialist, since this information was not collected in the survey. However, we did include an explanatory variable indicating the source of the referral (medical professional, friend or relative, or other), since one might expect beneficiaries to be less likely to switch from a specialist recommended by their primary care physician than a specialist found through other means.

Results of the multivariate analysis indicate that beneficiary characteristics which have a statistically significant and positive effect on the probability of being potentially willing to switch to a PAR specialist are: (1) having an income below the poverty level, and (2) residing in the South. Other explanatory variables included in the model, such as gender, race, age, disability status, education, supplemental insurance coverage, source of the referral, and self-reported health status do not have a statistically significant effect (at the 5 percent level) on beneficiaries' willingness to switch to a PAR specialist. Thus, the probability of being willing to switch specialists does not appear to vary with the characteristics of the beneficiary in the same manner and to the same extent as the probability of being willing to switch from a regular source of care.

The fact that income is a statistically significant determinant of willingness to switch from a current specialist, but not from a regular source of care, may indicate that beneficiaries generally have a weaker attachment to specialists than to their regular physician. Thus, while low income beneficiaries may be reluctant to sever an existing relationship with a primary care provider for financial considerations, they appear to have a greater willingness to consider switching specialists.

REFERENCES

- Garfinkel, S. and L. Corder. "Supplemental Health Insurance Coverage Among Aged Medicare Beneficiaries." *National Medical Care Utilization and Expenditure Survey, Series B, Descriptive Report No. 5*, DHHS Publication No. 88-2025, U.S. Government Printing Office, Washington, DC, August 1985.
- Hulka, B., L. Kupper, et al., "Correlates of Satisfaction and Dissatisfaction with Medical Care: A Community Perspective," *Medical Care* 13(8) August 1975, 648-58.
- Marcus, A. and J. Siegel, "Sex Differences in the Use of Physician Services: A Preliminary Test of the Fixed Role Hypothesis," *Journal of Health and Social Behavior*, 23, September 1982, 186-97.
- Physician Payment Review Commission. *Annual Report to Congress*, April 1989.
- U.S. Department of Commerce, Bureau of the Census. *Receipt of Selected Noncash Benefits*, Washington, DC, 1988.
- U.S. House of Representatives. "Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means," U.S. Government Printing Office, Washington, DC, 1988.

APPENDIX A
SAMPLE DESIGN AND WEIGHTING PROCEDURES

APPENDIX A

SAMPLE DESIGN AND WEIGHTING PROCEDURES

The sample employed in this study is a stratified random sample of the national Medicare population in which beneficiaries in selected strata have been oversampled relative to their representation nationally. This design was chosen in order to ensure that some of the smaller subgroups of analytic interest are adequately represented in the sample. Below, we describe the sample design chosen for this study and discuss the considerations that led to the selection of this design. We then discuss the weighting procedures that were used in the analysis to account for the stratified sample design.

1. Sample Design

The sample employed in this study is a stratified random sample of the national Medicare population in which sample members have been allocated across the following three strata:¹

1. Nonblacks under age 85
2. Nonblacks age 85 and over
3. Blacks

In order to obtain a larger number of blacks and a larger number of beneficiaries at the upper end of the age distribution than would be obtained in a simple random sample, beneficiaries in the second and third strata were oversampled. Specifically, the sampling rate for blacks was three times that for nonblacks under age 85, and the sampling rate for nonblacks age 85 and over was twice that for nonblacks under age 85. Thus, the sampling rates for the three strata (presented in the same order as above) are as follows:

- o $f_1 = .7952 * f$
- o $f_2 = 1.5904 * f$
- o $f_3 = 2.3856 * f$

where f is the uniform sampling rate for a simple random sample.

This design was chosen for two reasons. First, it yields a sample which supports analyses of beneficiary subgroups of particular interest to this study at an acceptable level of precision (discussed below), within the context of a total sample size of 2,000 completed interviews. Second, the design is sufficiently simple so that analyses of the sample can be conveniently conducted. In particular, the weighting procedures required to compute means and standard errors are very straightforward.

¹ All racial and ethnic groups other than blacks have been classified as "nonblacks" for the purpose of defining the strata.

To design and draw the sample, we employed the technique of "two-phase sampling." That is, we first obtained from HCFA a sample of approximately 10,000 beneficiaries drawn randomly from the national Medicare population in October 1988. We then drew the survey sample from this larger sample. The initial sample obtained from HCFA includes only beneficiaries who are covered by both Part A and Part B of Medicare and who are not enrolled in an HMO. Frequency distributions computed from this initial sample were used to determine the optimal design for the survey sample.

The optimal design for the survey sample was determined by the beneficiary subgroups of primary interest to the analysis and the desired level of precision for subgroup analyses. The precision standard we followed in designing the sample was that the standard errors of outcome variables expressed as proportions should be less than .035 for as many subgroups as possible. For many of the major subgroups of interest, this precision standard would have been met in a simple random sample consisting of 2,000 completed interviews. Based on our frequency distributions of the initial sample obtained from HCFA, however as well as published data from the Current Population Survey (CPS), we determined that this precision standard would not have been met for the following key subgroups: blacks, beneficiaries age 85 and over, and beneficiaries below the poverty level and not on Medicaid.

We therefore developed a stratified sample design in which blacks and beneficiaries age 85 and over were oversampled at the rates specified above. The oversampling of blacks was designed not only to meet the sample size requirement for blacks but also to meet the sample size requirement for beneficiaries below the poverty level. Oversampling blacks was a particularly effective means of increasing the number of poor beneficiaries in the sample since the poverty rate for black Medicare beneficiaries is three times that for whites.²

2. Weighting Procedures

The stratified sample design adopted for this study requires the use of sampling weights when conducting analyses on the survey data. The weights for the three strata are as follows:

$$\begin{aligned}w_1 &= 1.2575 \\w_2 &= .6288 \\w_3 &= .4192\end{aligned}$$

These weights are the inverses of the sampling rates specified above.

To illustrate how these weights are applied in the analysis, consider the calculation of the mean and standard error of the mean for a survey variable for the entire sample. Let n_i be the number of sample members in stratum i , and M_i and V_i be the mean and variance of the mean of the variable of interest for stratum i . Then the overall mean (M) and variance of the mean (V) for the entire sample are defined as follows:

² Data on poverty rates for the Medicare population by race were obtained from *Receipt of Selected Noncash Benefits: 1986*, U.S. Department of Commerce, Bureau of the Census.

$$M = p_1 * M_1 + p_2 * M_2 + p_3 * M_3$$

$$V = p_1^2 * V_1 + p_2^2 * V_2 + p_3^2 * V_3$$

where p_i is the properly weighted share of sample members in stratum i and is defined as follows:

$$p_i = (n_i * w_i) / (n_1 * w_1 + n_2 * w_2 + n_3 * w_3)$$

where w_i is the weight for stratum i defined above.

This approach was also used to compute means and standard errors for each of the subgroups analyzed in this study. For analysis of a particular subgroup, n_i was defined as the number of subgroup members in stratum i , and M_i and V_i were defined as the subgroup mean and variance of the mean for stratum i . The formulas above were then applied to compute the overall mean and variance of the mean for the subgroup.

Finally, the regressions estimated for this study were weighted regressions, in which individual sample members were weighted according to the stratum to which they were assigned. Thus, sample members in stratum 1 received a weight of 1.2575, those in stratum 2 received a weight of 0.6288, and those in stratum 3 received a weight of 0.4192.

APPENDIX B
REASONS FOR NOT FILING CLAIMS

APPENDIX B

REASONS FOR NOT FILING CLAIMS

As discussed in Chapter V, approximately 3 percent of survey respondents reported having unfiled claims from the prior year totaling more than \$75. Specific dollar amounts of the unfiled claims and corresponding reasons for not filing are presented below for these individuals:

- . \$80: "I didn't feel they would pay a \$20.00 fee. I didn't feel it was warranted."
- . \$90: "lot of stuff I did not understand."
- . \$95: "lack of time to file the paperwork."
- . \$100: "they did it."
- . \$100: "just didn't bother."
- . \$100: No reason given.
- . \$100: "The respondent was misclassified as dead [and] she could not get the benefit of Medicare."
- . \$100: "didn't know how to fill out forms."
- . \$100: "too small -- \$6."
- . \$100: "didn't understand Medicare."
- . \$100: "She rarely sees the doctor so she doesn't want to file any claims."
- . \$100: "trouble with the filing of the claim -- the confusing paperwork. We tried filing the claim and it was sent back three times because it was wrong."
- . \$108: "The girl in the office gave him a Medicare form but did not fill out [for] the doctor's services."
- . \$114: "I wasn't aware I could file it."
- . \$125: "just didn't; no reason."
- . \$129: "because Medicare would not accept bill when she handed it in; they wanted a bill from the lab."
- . \$150: "unfamiliarity of paperwork involved."

- . \$159: "It's just too much trouble for so small an amount."
- . \$150: "small amount."
- . \$150: "small [print] -- can't read, and amount was small."
- . \$150: "There [are] so many questions on there and you can't get the information from the doctor; the doctor's bill is so confusing, it must be written in code. He also mentioned that he doesn't file any claims for bills under \$35 or \$40."
- . \$150: "The amount was too small to claim."
- . \$150: "easier to pay small bills."
- . \$157: "never bothered. Doctor hands me a bill and I pay it."
- . \$179: "was going on trip so paid doctor himself."
- . \$200: "it wasn't that much of a bill to send in."
- . \$200: "never receive reply on a few of the minor bills."
- . \$200: "didn't have any medical bills."
- . \$200: "too complicated."
- . \$200: "None of us understand them."
- . \$200: "filling out the form."
- . \$200: "just that doctors filed it wrong so it had to [be] filed by me."
- . \$200: "just did not know just what to do, whether to file the supplemental insurance or with Medicare."
- . \$212: "don't know."
- . \$220: "Respondent likes to pay herself if she has the money."
- . \$250: "did not seem to be worth [it] on incidental bills."
- . \$250: "When I filed them before, I never received my money."
- . \$250: "didn't want to run up too big a bill and risk being cut off Medicare."
- . \$250: "don't know."
- . \$280: "I pay more with Medicare."

- . \$300: "nonsense questions they ask."
- . \$300: "When I got Medicare I didn't know I had it and I didn't know [to] submit."
- . \$450: "the paperwork and the availability of Medicare personnel who are knowledgeable and who could answer questions for me."
- . \$500: "too much hassle."
- . \$500: "not sure Medicare covered certain expenses and didn't know where to get forms."
- . \$600: "just did not file the claim."
- . \$623: "I cannot read and write good, and I don't know how to do the forms."
- . \$650: "He couldn't figure it out for major medical."
- . \$666: "It was too complicated for even the doctor's office, so I paid it."
- . \$750: "If it was a small amount, she paid it herself. [She] wishes Medicare statement could be sent in duplicate for supplemental insurance."
- . \$998: "He just didn't want to be bothered with the forms."
- . \$1,000: "Respondent did not know if Medicare would pay the bill. His housekeeper said that if the respondent knew that [he] was covered, he would not have paid. He took food money to pay."
- . \$1,000: "did not [know] where to send bill to Medicare, the address not known."
- . \$1,100: "too complicated."
- . \$1,200: "pays bill and skips it."
- . \$2,000: "too much of a hassle."
- . \$2,576: "I like to use my own money."

APPENDIX C
ADVANCE MAILING TO SURVEY RESPONDENTS

The Administrator
Washington, D.C. 20201

The Physician Payment Review Commission (PPRC) was established by Public Law 99-272 to advise the U. S. Congress on improving the way physicians are paid under Medicare. The Health Care Financing Administration (HCFA) administers the Medicare program. HCFA is cooperating with the PPRC on a survey of Medicare beneficiaries. The survey will mainly study the part of physicians' bills that Medicare does not pay. Survey results will help us to improve the way Medicare meets beneficiary needs.

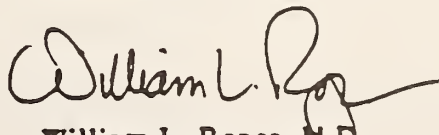
You are 1 of over 30 million Americans with health insurance under the Medicare program. Your name was selected at random to take part in the survey. Within the coming weeks, you will be contacted by a telephone interviewer. The interviewer will want to ask you questions about your use of doctors' care and your experience with how Medicare pays for it. The interview should take about half an hour of your time.

You do not have to participate in this study. Your Medicare benefits will not change based on whether you participate. If you participate, there are no penalties if you do not want to answer a particular question. All answers you give will be kept strictly confidential. Information you give that would permit identification of any individual will be used only by the Commission, will be held in strict confidence, and will be used only for statistical purposes.

If you have any questions about the survey, please feel free to call Ms. Anne Ciemnecki, toll free, at 1-800-777-0085.

Thank you for your cooperation.

Sincerely,



William L. Roper, M.D.
Administrator

November 1988

Dear Medicare Beneficiary:

Mathematica Policy Research, a research company in Princeton, NJ, is doing a special survey of Medicare beneficiaries for the Physician Payment Review Commission. You may have already received a letter about the study from Dr. William L. Roper, the Administrator of the Health Care Financing Administration. The survey results will be reported to the U.S. Congress. They will be used to develop policies to help you and other beneficiaries understand Medicare, use it more easily to reduce your out-of-pocket costs, and ensure that you have access to the highest quality health care available.

An interviewer from Mathematica Policy Research will be calling you on the telephone in a few days. The interview will take about thirty minutes and the questions are easy.

To prepare you for the interview, I have enclosed some materials. There are two sample Explanation of Medicare Benefits forms. It would be useful if you could keep these near your telephone. The interviewer will ask you to look at them during the interview. There is also a yellow form entitled "Summary of Last Doctor's Bill". The interviewer will be asking you about the last doctor's bill you received. He or she will want to know the total amount of the bill, the amount that Medicare and other insurance paid, any money you had to pay out of your own pocket, and what the money you paid out of your pocket was for. If you do not know this information or if it is not available, don't worry. You can answer the other questions without it.

This is a very important study, but participation in it is voluntary. All the information you give will be used for research purposes only and will be held in complete confidence. Your Medicare benefits will not be affected by whether or not you decide to participate.

I hope that you do participate. If you have any questions about the study, please call me, toll free, at 1-800-777-0085. The interviewer looks forward to speaking to you in a few days.

Sincerely,



Anne B. Ciemnecki
Survey Director
Survey of Medicare Beneficiaries

YOUR EXPLANATION OF MEDICARE BENEFITS--SAMPLE FORM 1

OCT 31, 1988

READ THIS NOTICE CAREFULLY AND KEEP IT FOR YOUR RECORDS

THIS IS NOT A BILL

HEALTH CARE FINANCING ADMINISTRATION

NEED HELP? CONTACT:
YOUR MEDICARE CARRIER
MAIN STREET
BOX 1234
ANYTOWN, USA 12345
555-1234

ASSIGNMENT WAS NOT TAKEN ON YOUR CLAIM FOR \$ 55.00.

			BILLED	APPROVED
DR. KANE	1-OFFICE SERVICE(S)	OCT 15, 1988	\$ 55.00	\$ 50.00
TOTAL APPROVED AMOUNT				\$ 50.00
MEDICARE PAYMENT (80% OF THE APPROVED AMOUNT)				\$ 40.00

PARTICIPATING DOCTORS AND SUPPLIERS ALWAYS ACCEPT ASSIGNMENT OF MEDICARE CLAIMS. SEE BACK OF THIS NOTICE FOR AN EXPLANATION OF ASSIGNMENT. YOU CAN GET MORE INFORMATION BY CALLING THE NUMBER SHOWN ABOVE.

WE ARE PAYING A TOTAL OF \$ 40.00 TO YOU ON THE ATTACHED CHECK. PLEASE DETACH AND CASH IT AS SOON AS POSSIBLE.

IF YOU HAVE OTHER INSURANCE, IT MAY HELP WITH THE PART MEDICARE DID NOT PAY.

YOU HAVE MET THE DEDUCTIBLE FOR 1988.

IMPORTANT: If you do not agree with the amounts approved you may ask for a review. To do this you must write to us before APR 30, 1989.

DO YOU HAVE A QUESTION ABOUT THIS NOTICE? If you believe Medicare paid for a service you did not receive, or there is an error, contact us immediately. Always give us the:

Medicare Claim No.- 123-45-6789A
Your Name - MRS BROWN

Claim Control No.- 1234-56789

12345678

DETACH THE CHECK BELOW AND CASH PROMPTLY

MEDICARE 32908 ED. 1-87

+ + + + +

YOUR EXPLANATION OF MEDICARE BENEFITS--SAMPLE FORM 2

OCT 1, 1988

READ THIS NOTICE CAREFULLY AND KEEP IT FOR YOUR RECORDS
THIS IS NOT A BILL

HEALTH CARE FINANCING ADMINISTRATION

NEED HELP? CONTACT:
YOUR MEDICARE CARRIER
MAIN STREET
BOX 1234
ANYTOWN, USA 12345
555-1234

ASSIGNMENT WAS TAKEN ON YOUR CLAIM FOR \$ 750.00. FROM DR. WORTH

		BILLED	APPROVED
SURGERY	SEPT 1, 1988	\$ 750.00	\$ 750.00
TOTAL APPROVED AMOUNT			\$ 750.00
MEDICARE PAYMENT (80% OF THE APPROVED AMOUNT)			\$ 600.00

WE ARE PAYING A TOTAL OF \$ 600.00 TO DR. WORTH. YOU ARE RESPONSIBLE FOR THE DIFFERENCE OF \$ 150.00 BETWEEN THE APPROVED AMOUNT AND THE MEDICARE PAYMENT. IF YOU HAVE ANY OTHER INSURANCE, IT MAY HELP WITH THE PART MEDICARE DID NOT PAY.

YOU HAVE MET THE DEDUCTIBLE FOR 1988.

IMPORTANT: If you do not agree with the amounts approved you may ask for a review. To do this you must write to us before APR 1, 1989.

DO YOU HAVE A QUESTION ABOUT THIS NOTICE? If you believe Medicare paid for a service you did not receive, or there is an error, contact us immediately. Always give us the:

Medicare Claim No.- 123-45-6789A

Claim Control No.- 9876-54321

Your Name - MRS BROWN

12345678

SUMMARY OF LAST DOCTOR'S BILL

As a part of the telephone interview, the interviewer will be asking you about your last doctor's bill. The information listed below is what the interviewer will be asking. We have sent you this summary to help you gather the information if you have it. If you do not, do not worry. This is only a small part of the study. The other questions are about you and how you feel about health care in general and Medicare in particular. You will be able to answer them without any preparation.

Total amount of bill (amount that doctor charged for the visit or procedure) \$ _____

Amount paid by Medicare.....\$ _____

Amount, if any, paid by other insurance.....\$ _____

Amount, if any, that you had to pay.....\$ _____

Of the amount that you had to pay:

Amount that went toward yearly deductible..\$ _____

Amount that went toward co-insurance.....\$ _____

Amount paid because a service or procedure was not covered by Medicare.....\$ _____

Amount paid because doctor's fee was more than Medicare approved amount.....\$ _____

APPENDIX D
SUPPLEMENTARY TABLES

TABLE D.1
DESCRIPTION OF SURVEY NON-RESPONDENTS

	Total (N=847)	Refused (N=268)	Cannot Locate			Other ^a (N=100)
			Unlisted Number or No Phone (N=207)	Confirmed Wrong Address (N=100)	Cannot Locate (N=172)	
<u>Age</u>						
<65 (disabled)	11.9%	4.5%	23.7%	20.0%	8.70%	5.0%
65-74	42.3	46.3	43.5	32.0	44.2	36.0
75-84	24.5	32.1	22.2	30.0	30.2	31.0
85 and over	14.3	17.2	10.6	18.0	16.9	28.0
<u>Sex</u>						
Male	34.8	32.8	38.6	28.0	33.7	41.0
Female	65.2	67.2	61.4	72.0	66.3	59.0
<u>Race/Ethnic Background</u>						
White	74.4	89.2	56.5	68.0	72.1	82.0
Black	21.5	7.5	39.6	24.0	25.0	13.0
Other	1.5	0.4	1.0	6.0	1.2	2.0
Unknown	2.6	3.0	2.9	2.0	1.7	3.0
<u>Region</u>						
Northeast	22.7	25.4	27.5	21.2	11.8	26.0
North Central	25.7	34.0	23.7	17.2	15.3	34.0
South	35.5	28.4	34.8	29.3	56.5	27.0
West	16.0	12.3	14.0	32.3	16.5	13.0
<u>Urban/Rural</u>						
<u>Metropolitan</u>						
Population 1,000,000 and over	41.8	41.0	52.2	55.6	21.8	43.0
Population under 1,000,000	29.0	36.9	26.6	31.3	19.4	27.0
<u>Non Metropolitan</u>						
Population 25,000 and over	17.2	13.1	12.6	11.1	31.2	20.0
Population under 25,000	12.0	9.0	8.7	2.0	27.6	10.0
<u>[Nonmetropolitan, Contiguous to Urban Area]</u>						
	12.6	9.7	8.7	3.0	28.2	11.0
<u>Health Manpower Shortage Area</u>						
Entire County	5.8	1.1	4.8	2.0	18.8	2.0
Part of the County	62.3	69.0	63.8	75.8	42.4	62.0
Not a Shortage Area	31.9	29.9	31.4	22.2	38.8	36.0
<u>Assignment Policy</u>						
No assignment program	56.8	51.1	53.0	68.0	64.0	56.0
Mandatory assignment	2.6	4.1	1.4	1.0	2.3	3.0
Means tested assignment by law	2.2	2.6	2.4	0.0	0.6	6.0
Voluntary assignment program	38.4	42.2	43.0	31.0	33.1	35.0

^a Includes partially completed interviews (17), those unable to respond due to language barriers, or physical or cognitive disabilities who had no proxy respondents available (39); those out of the area for the duration of the field period (13); and unable to contact after multiple attempts (31).

TABLE D.2
UNDERSTANDING OF ASSIGNMENT
(Excluding Medicaid Beneficiaries)

Characteristics	Percent Who Had Heard the Term "Assignment" (N = 1,794)	Percent Who Could Define Assignment (N = 1,794)
Total	66.9 (1.1)	49.6 (1.2)
<u>Respondent</u>		
Self	65.5 (1.3)	47.8 (1.3)
Proxy	75.7 (2.6)	60.1 (3.1)
<u>Age</u>		
< 65 (disabled)	66.6 (4.2)	53.3 (4.5)
65-74	69.4 (1.6)	52.6 (1.7)
75-84	65.7 (2.2)	47.1 (2.4)
85+	57.5 (2.9)	38.3 (2.9)
<u>Sex</u>		
Male	69.3 (1.7)	53.9 (1.9)
Female	65.2 (1.5)	46.5 (1.6)
<u>Income</u>		
Below the poverty level	47.8 (3.1)	29.9 (2.9)
100-150% of the poverty level	58.9 (2.6)	39.0 (2.6)
150-200% of the poverty level	65.8 (3.0)	49.1 (3.2)
200-300% of the poverty level	76.9 (2.4)	60.8 (2.8)
over 300% of the poverty level	80.9 (2.3)	66.0 (2.7)
<u>Education</u>		
8 years or less	49.1 (2.5)	30.5 (2.3)
9-11 years	63.5 (2.9)	43.7 (3.0)
High school graduate	73.8 (2.0)	56.4 (2.3)
Some college	78.6 (2.7)	60.2 (3.3)
College graduate	82.0 (2.8)	70.3 (3.3)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	70.5 (1.2)	53.5 (1.3)
Black, Non-Hispanic	36.9 (3.0)	16.7 (2.1)
Hispanic	40.0 (7.6)	19.1 (6.0)
Other, Non-Hispanic	47.1 (7.8)	30.1 (7.3)
<u>Health Status</u>		
Excellent	71.5 (2.6)	54.9 (2.9)
Good	67.4 (1.9)	50.2 (2.0)
Fair	64.9 (2.1)	47.8 (2.3)
Poor	65.0 (3.2)	45.5 (3.3)
<u>Hospitalized In last year</u>	72.0 (2.4)	52.0 (2.7)
<u>Supplemental Coverage</u>		
Medicare Only	49.2 (2.5)	32.3 (2.4)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	72.2 (1.3)	54.7 (1.4)

Table D.2 - continued

Characteristics	Percent Who Had Heard the Term "Assignment" (N=1,794)	Percent Who Could Define Assignment (N=1,794)
<u>Region</u>		
Northeast	65.0 (2.5)	45.1 (2.6)
North Central	67.9 (2.1)	51.5 (2.3)
South	65.8 (1.9)	49.6 (2.1)
West	72.0 (3.0)	53.6 (3.4)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	71.7 (1.9)	53.2 (2.1)
Population under 1,000,000	64.7 (2.0)	49.7 (2.1)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	66.8 (2.5)	45.9 (2.6)
Population under 25,000	62.0 (3.5)	47.4 (3.6)
<u>Nonmetropolitan, Contiguous to Urban Area</u>		
	62.2 (3.2)	45.5 (3.3)
<u>Health Manpower Shortage Area</u>		
Entire county	53.2 (5.4)	40.0 (5.4)
Part of the county	67.4 (1.5)	50.2 (1.6)
Not a shortage area	68.6 (1.9)	50.3 (2.0)
<u>Assignment Policy</u>		
No assignment program	68.2 (1.5)	51.3 (1.7)
Mandatory assignment	67.3 (7.4)	43.9 (8.1)
Means tested assignment by law	47.6 (7.5)	36.9 (7.3)
Voluntary assignment program	66.6 (1.8)	48.5 (2.0)
<u>Care Source</u>		
Regular source of care	69.0 (1.2)	51.7 (1.3)
No regular source of care	51.8 (3.7)	33.7 (3.5)

NOTE: The standard error for each percentage is provided in parentheses.

TABLE D.3
REGRESSION RESULTS: RELATIONSHIP BETWEEN BENEFICIARY CHARACTERISTICS
AND UNDERSTANDING OF ASSIGNMENT
(Excluding Medicaid Beneficiaries)

Explanatory Variables	Whether Had Heard of Assignment		Whether Could Define Assignment	
	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	.601**	(8.61)	.523**	(7.04)
<u>Demographic Characteristics</u>				
Whether female	-.021	(0.89)	-.049	(1.92)
Whether black	-.202**	(4.37)	-.238**	(4.84)
Whether Hispanic	-.202**	(2.74)	-.276**	(3.52)
<u>Age</u>				
< 65	.037	(0.81)	.057	(1.17)
75 - 84	.005	(0.19)	-.010	(0.37)
85+	-.063	(1.47)	-.070	(1.52)
<u>Education</u>				
< 8 years	-.211**	(4.62)	-.277**	(5.72)
9-11 years	-.131**	(2.88)	-.218**	(4.50)
High school graduate	-.049	(1.21)	-.111*	(2.56)
Some college	-.006	(0.15)	-.059	(1.25)
<u>Income/Insurance Coverage</u>				
<u>Income</u>				
Below the poverty level	-.141**	(3.19)	-.150**	(3.20)
100-150% of the poverty level	-.090*	(2.34)	-.100**	(2.44)
150-200% of the poverty level	-.045	(1.15)	-.031	(0.75)
200-300% of the poverty level	.003	(0.09)	.017	(0.46)
Whether have Medicare supplemental insurance	.117**	(3.91)	.088**	(2.77)
<u>Health Status (Self-Reported)</u>				
Health excellent	.030	(0.71)	.070	(1.53)
Health good or fair	-.004	(0.11)	.031	(0.83)
<u>Medical Care Arrangements</u>				
Whether have a regular source of care	.149**	(4.01)	.154**	(3.89)
<u>Geographic Location</u>				
<u>Region</u>				
Northeast	.003	(0.09)	-.042	(1.08)
South	.032	(1.09)	.030	(0.97)
West	.038	(0.98)	-.008	(0.19)
<u>Urban/Rural</u>				
Nonmetropolitan area under 25,000 population	.012	(0.32)	.007	(0.17)
Nonmetropolitan area with population 25,000 and over	.001	(0.05)	-.039	(1.32)
Health manpower shortage area	-.126*	(2.30)	-.086	(1.48)

Table D.3 - continued

Explanatory Variables	Whether Had Heard of Assignment		Whether Could Define Assignment	
	Coefficient	t-statistic	Coefficient	t-statistic
State Assignment Policy				
Mandatory	-.053	(0.64)	-.110	(1.24)
Means-tested	-.214**	(2.74)	-.119	(1.43)
Voluntary	.000	(0.01)	-.021	(0.71)
Survey Respondent				
Whether proxy respondent	.146**	(4.14)	.180**	(4.82)
Mean of dependent variable	.680		.506	
Number of observations	1,514		1,514	
R ²	.152		.164	

NOTE: The equations have been estimated using ordinary least squares. Results from estimating the equations as probit models (not shown) yielded the same qualitative conclusions about which beneficiary characteristics have a statistically significant influence on the dependent variables.

*Coefficient is significantly different from zero at the 5 percent level.

**Coefficient is significantly different from zero at the 1 percent level.

TABLE D.4
UNDERSTANDING OF THE PARTICIPATING PHYSICIAN PROGRAM
(Excluding Medicaid Beneficiaries)

Characteristics	Percent Who Had Heard of the PAR Program (N = 1,794)	Percent Who Could Define the PAR Program (N = 1,794)
Total	52.7 (1.2)	25.5 (1.1)
<u>Respondent</u>		
Self	52.7 (1.3)	26.0 (1.2)
Proxy	52.7 (3.1)	22.2 (2.7)
<u>Age</u>		
< 65 (disabled)	52.9 (4.6)	30.3 (4.3)
65-74	57.3 (1.7)	27.7 (1.6)
75-84	48.4 (2.4)	22.5 (2.0)
85+	40.6 (3.0)	18.9 (2.4)
<u>Sex</u>		
Male	55.9 (1.9)	25.3 (1.7)
Female	50.4 (1.6)	25.6 (1.4)
<u>Income</u>		
Below the Poverty Level	37.0 (3.0)	15.4 (2.3)
100-150% of the Poverty Level	42.1 (2.7)	20.6 (2.2)
150-200% of the Poverty Level	54.2 (3.2)	27.1 (2.9)
200-300% of the Poverty Level	60.1 (2.8)	29.2 (2.6)
over 300% of the Poverty Level	66.0 (2.7)	33.1 (2.7)
<u>Education</u>		
8 years or less	33.4 (2.4)	15.0 (1.8)
9-11 years	52.5 (3.1)	19.5 (2.5)
High school graduate	60.8 (2.3)	29.9 (2.1)
Some college	60.0 (3.3)	34.9 (3.2)
College graduate	68.8 (3.3)	37.3 (3.5)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	55.4 (1.3)	27.5 (1.2)
Black, Non-Hispanic	30.9 (2.8)	9.9 (1.7)
Hispanic	38.7 (7.5)	15.2 (5.6)
Other, Non-Hispanic	31.6 (7.4)	5.8 (4.0)
<u>Health Status</u>		
Excellent	57.4 (2.9)	27.0 (2.7)
Good	54.5 (2.0)	27.2 (1.8)
Fair	49.3 (2.3)	22.4 (1.9)
Poor	52.3 (3.4)	26.5 (3.0)
<u>Hospitalized in last year</u>	52.3 (2.7)	26.6 (2.4)
<u>Supplemental Coverage</u>		
Medicare Only	41.0 (2.5)	18.4 (2.0)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	56.4 (1.4)	27.7 (1.3)
<u>Region</u>		
Northeast	55.3 (2.6)	27.9 (2.3)
North Central	51.9 (2.3)	24.6 (2.0)
South	50.6 (2.1)	23.9 (1.8)
West	54.9 (3.4)	27.4 (3.0)

Table D.4 - continued

Characteristics	Percent Who Had Heard of the PAR Program (N=1,794)	Percent Who Could Define the PAR Program (N=1,794)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	55.3 (2.1)	27.9 (2.0)
Population under 1,000,000	53.0 (2.1)	25.7 (1.9)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	48.9 (2.6)	22.4 (2.2)
Population under 25,000	51.7 (3.4)	24.6 (3.1)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	47.7 (3.3)	23.4 (2.8)
<u>Health Manpower Shortage Area</u>		
Entire county	50.9 (5.4)	22.5 (4.7)
Part of the county	52.1 (1.6)	26.2 (1.5)
Not a shortage area	53.8 (2.0)	24.9 (1.8)
<u>Assignment Policy</u>		
No assignment program	51.2 (1.7)	24.6 (1.5)
Mandatory assignment	41.0 (8.1)	17.6 (6.2)
Means tested assignment by law	48.0 (7.5)	30.6 (6.8)
Voluntary assignment program	55.9 (1.9)	26.8 (1.8)
<u>Care Source</u>		
Regular source of care	53.8 (1.3)	26.7 (1.2)
No regular source of care	47.0 (3.7)	16.4 (2.8)

NOTE: The standard error for each percentage is provided in parentheses.

TABLE D.5

**REGRESSION RESULTS: RELATIONSHIP BETWEEN BENEFICIARY CHARACTERISTICS
AND UNDERSTANDING OF THE PARTICIPATING PHYSICIAN PROGRAM
(Excluding Medicaid Beneficiaries)**

Explanatory Variables	Whether Had Heard of the PAR Program		Whether Could Define the PAR Program	
	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	.585**	(7.57)	.219**	(3.17)
<u>Demographic Characteristics</u>				
Whether female	-.030	(1.12)	.020	(0.84)
Whether black	-.141**	(2.77)	-.106*	(2.33)
Whether Hispanic	-.109	(1.34)	-.065	(0.89)
Age				
< 65	.040	(0.79)	.091*	(2.01)
75 - 84	-.039	(1.32)	-.024	(0.92)
85+	-.097*	(2.03)	-.039	(0.91)
Education				
< 8 years	-.249*	(4.94)	-.195**	(4.32)
9-11 years	-.106*	(2.10)	-.187**	(4.15)
High school graduate	-.052	(1.16)	-.099*	(2.45)
Some college	-.076	(1.53)	-.052	(1.18)
<u>Income/Insurance Coverage</u>				
Income				
Below the poverty level	-.089	(1.83)	-.034	(0.78)
100-150% of the poverty level	-.094*	(2.21)	-.014	(0.36)
150-200% of the poverty level	-.005	(0.12)	.034	(0.86)
200-300% of the poverty level	-.001	(0.30)	.024	(0.68)
Whether have Medicare supplemental insurance	.057	(1.72)	.044	(1.50)
<u>Health Status (Self-Reported)</u>				
Health excellent	.039	(0.83)	.006	(0.15)
Health good or fair	-.007	(0.19)	-.027	(0.79)
<u>Medical Care Arrangements</u>				
Whether have a regular source of care	.064	(1.55)	.128**	(3.48)
<u>Geographic Location</u>				
Region				
Northeast	.067	(1.64)	.046	(1.25)
South	.031	(0.96)	.039	(1.34)
West	.022	(0.51)	.043	(1.13)
Urban/Rural				
Nonmetropolitan area under 25,000 population	.038	(0.90)	.036	(0.96)
Nonmetropolitan area with population 25,000 and over	-.035	(1.13)	-.046	(1.67)
Health manpower shortage area	-.021	(0.34)	-.028	(0.52)

Table D.5 - continued

Explanatory Variables	Whether Had Heard of the PAR Program		Whether Could Define the PAR Program	
	Coefficient	t-statistic	Coefficient	t-statistic
<u>State Assignment Policy</u>				
Mandatory	-.164	(1.78)	-.065	(0.78)
Means-tested	-.111	(1.29)	.027	(0.35)
Voluntary	.022	(0.71)	.024	(0.86)
<u>Survey Respondent</u>				
Whether proxy respondent	.070	(1.81)	-.011	(0.33)
Mean of dependent variable	.535		.262	
Number of observations	1,514		1,514	
R ²	.091		.064	

NOTE: The equations have been estimated using ordinary least squares. Results from estimating the equations as probit models (not shown) yielded the same qualitative conclusions about which beneficiary characteristics have a statistically significant influence on the dependent variables.

*Coefficient is significantly different from zero at the 5 percent level.

**Coefficient is significantly different from zero at the 1 percent level.

**TABLE D.6
UNDERSTANDING OF MEDICARE BENEFIT FORMS**

Characteristics	Percent Who Correctly Identified	
	Patient Liability (N=693) Office Visit	Surgery
Total	33.7 (1.9)	86.0 (1.4)
<u>Respondent</u>		
Self	33.9 (2.0)	85.8 (1.5)
Proxy	32.0 (4.9)	87.0 (3.4)
<u>Age</u>		
< 65 (disabled)	39.6 (7.0)	87.8 (4.6)
65-74	38.6 (2.5)	88.2 (1.7)
75-84	22.9 (3.4)	81.3 (3.0)
85+	23.7 (5.1)	82.0 (4.6)
<u>Sex</u>		
Male	37.2 (3.0)	86.1 (2.1)
Female	31.1 (2.4)	86.0 (1.8)
<u>Income</u>		
Below the Poverty Level	21.6 (4.3)	74.2 (4.5)
100-150% of the Poverty Level	21.5 (4.0)	80.5 (3.8)
150-200% of the Poverty Level	34.0 (5.0)	89.4 (3.2)
200-300% of the Poverty Level	40.0 (4.1)	89.4 (2.6)
over 300% of the Poverty Level	44.9 (4.0)	91.9 (2.2)
<u>Education</u>		
8 years or less	21.2 (3.8)	75.0 (3.9)
9-11 years	32.8 (4.8)	84.5 (3.6)
High school graduate	35.9 (3.3)	88.8 (2.1)
Some college	35.2 (4.6)	88.8 (3.0)
College graduate	48.5 (5.4)	93.9 (2.7)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	34.7 (2.0)	86.9 (1.4)
Black, Non-Hispanic	20.7 (4.4)	80.5 (4.4)
Hispanic	*	*
Other, Non-Hispanic	*	*
<u>Health Status</u>		
Excellent	35.8 (4.3)	87.2 (2.8)
Good	36.3 (3.1)	85.6 (2.2)
Fair	30.2 (3.4)	86.1 (2.5)
Poor	29.0 (5.3)	85.0 (4.0)
Hospitalized in last year	34.9 (4.3)	84.6 (3.2)
<u>Supplemental Coverage</u>		
Medicare only	26.3 (4.3)	78.2 (4.0)
Medicare and Medicaid (with or without supplemental)	11.4 (5.2)	81.2 (6.6)
Medicare and private supplemental (no Medicaid)	36.6 (2.2)	87.9 (1.4)
<u>Region</u>		
Northeast	28.2 (3.6)	81.7 (3.0)
North Central	35.8 (3.4)	92.5 (1.8)
South	34.1 (3.4)	78.8 (3.0)
West	39.2 (5.3)	95.0 (2.4)

Table D.6 - continued

Characteristics	Percent Who Correctly Identified	
	<u>Patient Liability (N=693)</u> Office Visit	Surgery
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	35.8 (3.4)	90.4 (2.0)
Population under 1,000,000	34.9 (3.2)	84.7 (2.4)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	31.5 (3.9)	83.7 (3.0)
Population under 25,000	29.5 (5.3)	82.1 (4.4)
<u>Nonmetropolitan, Contiguous to Urban Area</u>		
	28.0 (4.7)	83.1 (3.7)
<u>Health Manpower Shortage Area</u>		
Entire county	20.8 (8.1)	74.3 (8.4)
Part of the county	33.1 (2.4)	87.7 (1.7)
Not a shortage area	36.3 (3.1)	84.5 (2.3)
<u>Assignment Policy</u>		
No assignment program	35.3 (2.6)	85.4 (1.9)
Mandatory assignment	*	*
Means tested assignment by law	*	*
Voluntary assignment program	32.3 (2.9)	86.9 (2.1)
<u>Care Source</u>		
Regular source of care	33.9 (2.0)	86.3 (1.4)
No regular source of care	31.0 (6.4)	82.6 (5.2)

NOTES: *Indicates that there are fewer than 25 observations in the cell.

The standard errors for each percentage is provided in parentheses.

TABLE D.7
UNDERSTANDING OF MEDICARE BENEFIT FORMS
(Excluding Medicaid Beneficiaries)

Characteristics	Percent Who Correctly Identified	
	Patient Liability (N=651)	
	Office Visit	Surgery
Total	34.8 (1.9)	86.3 (1.4)
<u>Respondent</u>		
Self	35.0 (2.1)	86.0 (1.5)
Proxy	33.6 (5.2)	87.8 (3.6)
<u>Age</u>		
< 65 (disabled)	44.4 (7.8)	85.5 (5.4)
65-74	39.5 (2.6)	89.0 (1.6)
75-84	23.7 (3.5)	81.1 (3.1)
85+	24.0 (5.5)	81.0 (5.0)
<u>Sex</u>		
Male	38.0 (3.0)	86.2 (2.1)
Female	32.4 (2.5)	86.3 (1.8)
<u>Income</u>		
Below the poverty level	25.6 (5.1)	73.9 (5.1)
100-150% of the poverty level	21.4 (4.2)	79.1 (4.0)
150-200% of the poverty level	34.9 (5.1)	90.1 (3.1)
200-300% of the poverty level	40.0 (4.1)	89.4 (2.6)
over 300% of the poverty level	44.9 (4.0)	91.9 (2.2)
<u>Education</u>		
8 years or less	21.5 (4.1)	75.5 (4.1)
9-11 years	34.4 (5.0)	84.4 (3.7)
High school graduate	36.7 (3.4)	88.8 (2.2)
Some college	35.8 (4.7)	88.6 (3.1)
College graduate	48.5 (5.4)	93.9 (2.7)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	35.6 (2.1)	87.1 (1.4)
Black, Non-Hispanic	22.5 (4.9)	80.3 (4.7)
Hispanic	*	*
Other, Non-Hispanic	*	*
<u>Health Status</u>		
Excellent	37.0 (4.4)	87.7 (2.8)
Good	36.9 (3.1)	85.3 (2.3)
Fair	31.3 (3.5)	87.5 (2.5)
Poor	31.1 (5.6)	84.2 (4.3)
Hospitalized in last year	36.1 (4.5)	85.6 (3.2)
<u>Supplemental Coverage</u>		
Medicare Only	26.3 (4.3)	78.2 (4.0)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	36.6 (2.2)	87.9 (1.4)
<u>Region</u>		
Northeast	29.1 (3.7)	81.4 (3.1)
North Central	36.5 (3.5)	92.9 (1.8)
South	35.9 (3.6)	79.4 (3.0)
West	40.0 (5.5)	94.8 (2.5)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	36.5 (3.5)	90.0 (2.1)
Population under 1,000,000	35.3 (3.3)	84.8 (2.5)

Table D.7 - continued

Characteristics	Percent Who Correctly Identified Patient Liability (N=651)	
	Office Visit	Surgery
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	33.2 (4.1)	83.4 (3.2)
Population under 25,000	32.4 (5.7)	85.6 (4.3)
<u>Nonmetropolitan, Contiguous to Urban Area</u>		
	29.6 (4.9)	84.2 (3.7)
<u>Health Manpower Shortage Area</u>		
Entire county	23.6 (9.1)	82.7 (7.7)
Part of the county	34.1 (2.5)	87.6 (1.7)
Not a shortage area	37.3 (3.2)	84.4 (2.4)
<u>Assignment Policy</u>		
No assignment program	36.6 (2.7)	85.8 (1.9)
Mandatory assignment	*	*
Means tested assignment by law	*	*
Voluntary assignment program	33.6 (3.0)	86.6 (2.2)
<u>Care Source</u>		
Regular source of care	35.1 (2.0)	86.6 (1.4)
No regular source of care	31.7 (6.4)	82.2 (5.3)

NOTES: *Indicates that there are fewer than 25 observations in the cell.

The standard errors for each percentage is provided in parentheses.

TABLE D.8
PERCENT OF RESPONDENTS WHOSE PHYSICIAN SUBMITS THE CLAIM

	Medicaid Beneficiaries Included	Medicaid Beneficiaries Excluded
<u>With Regular Source of Care</u>		
- Regular Physician Usually Submits Claim (N= 1,540)	84.0 (1.0)	82.4 (1.1)
- Last Specialist Seen Submitted Claim (N=931)	89.0 (1.1)	87.7 (1.2)
<u>No Regular Source of Care</u>		
- Last Physician Seen Submitted Claim (N=77)	85.1 (4.0)	83.1 (4.6)
<u>With a Bill From an RAP in the Past Year</u>		
- RAP Submitted Claim (N=324)	90.8 (1.7)	90.7 (1.7)

NOTE: The statistics in this table were computed for individuals who filed a claim in the past two years (the past year for an RAP claim). The reported sample sizes include Medicaid beneficiaries.

The standard error for each percentage is provided in parentheses.

TABLE D.9
REGRESSION RESULTS: RELATIONSHIP BETWEEN BENEFICIARY
CHARACTERISTICS AND ASSIGNMENT EXPERIENCE
(Excluding Medicaid Beneficiaries)

Explanatory Variables	Whether Usually Treated on Assignment By Regular Source of Care		Whether Treated on Assignment on Last Visit To a Specialist	
	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	.642**	(7.97)	.947**	(9.31)
Demographic Characteristics				
Whether female	-.035	(1.12)	-.047	(1.21)
Whether black	.115	(1.75)	.171*	(1.97)
Whether Hispanic	.123	(1.30)	-.226	(1.64)
Age				
< 65	.033	(0.58)	-.177*	(2.26)
75 - 84	-.049	(1.44)	.050	(1.15)
85+	-.087	(1.55)	-.072	(1.06)
Education				
< 8 years	.055	(0.92)	.105	(1.38)
9-11 years	.092	(1.55)	-.052	(0.70)
High school graduate	.063	(1.18)	.043	(0.64)
Some college	.108	(1.85)	.030	(0.41)
Income/Insurance Coverage				
Income				
Below the poverty level	.089	(1.55)	-.032	(0.44)
100-150% of the poverty level	.022	(0.43)	-.019	(0.30)
150-200% of the poverty level	-.049	(0.94)	.054	(0.83)
200-300% of the poverty level	-.038	(0.84)	.034	(0.62)
Whether have Medicare supplemental insurance	-.066	(1.62)	-.134*	(2.47)
Health Status (Self-Reported)				
Health excellent	-.037	(0.65)	-.163*	(2.26)
Health good or fair	-.052	(1.18)	-.134*	(2.52)
Geographic Location				
Region				
Northeast	.120*	(2.47)	.058	(0.96)
South	-.026	(0.68)	.025	(0.52)
West	-.045	(0.88)	-.035	(0.54)
Urban/Rural				
Nonmetropolitan area under 25,000 population	-.049	(0.97)	.009	(0.13)
Nonmetropolitan area with population 25,000 and over	-.040	(1.11)	-.082	(1.73)
Health manpower shortage area	.168*	(2.32)	-.070	(0.80)

Table D.9 - continued

Explanatory Variables	Whether Usually Treated on Assignment By Regular Source of Care		Whether Treated on Assignment on Last Visit To a Specialist	
	Coefficient	t-statistic	Coefficient	t-statistic
State Assignment Policy				
Mandatory	.108	(1.01)	.187	(1.21)
Means-tested	.004	(0.04)	.187	(1.38)
Voluntary	-.107**	(2.90)	-.076	(1.60)
Survey Respondent				
Whether proxy respondent	.033	(0.73)	.014	(0.26)
Mean of dependent variable	.556		.683	
Number of observations	1,130		626	
R ²	.056		.084	

NOTE: The equations have been estimated using ordinary least squares. Results from estimating the equations as probit models (not shown) yielded the same qualitative conclusions about which beneficiary characteristics have a statistically significant influence on the dependent variables.

*Coefficient is significantly different from zero at the 5 percent level.

**Coefficient is significantly different from zero at the 1 percent level.

TABLE D.10

**PERCENT OF RESPONDENTS WHO ASKED THEIR PHYSICIAN NOT TO
CHARGE MORE THAN THE MEDICARE ALLOWED CHARGE**

Characteristics	Regular Source of Care (N = 1,344)	Specialist (N = 833)
Total	6.6 (0.7)	3.8 (0.7)
Respondent		
Self	6.8 (0.8)	4.3 (0.8)
Proxy	5.5 (1.6)	1.6 (1.0)
Age		
< 65 (disabled)	5.8 (2.5)	8.8 (4.2)
65-74	6.9 (1.0)	3.6 (0.9)
75-84	5.6 (1.2)	3.7 (1.3)
85+	8.2 (2.0)	2.5 (1.2)
Sex		
Male	7.8 (1.2)	4.1 (1.1)
Female	5.7 (0.9)	3.6 (0.9)
Income		
Below the poverty level	8.4 (2.1)	6.6 (2.4)
100-150% of the poverty level	7.2 (1.7)	5.0 (1.8)
150-200% of the poverty level	7.4 (2.0)	3.3 (1.9)
200-300% of the poverty level	8.8 (1.8)	5.3 (1.8)
over 300% of the poverty level	2.3 (1.0)	1.2 (0.9)
Education		
8 years or less	6.2 (1.4)	6.6 (1.9)
9-11 years	9.0 (2.1)	3.3 (1.6)
High school graduate	6.3 (1.3)	2.5 (1.0)
Some college	4.1 (1.6)	3.6 (1.8)
College graduate	8.4 (2.3)	3.5 (1.8)
Race/Ethnic Background		
White, Non-Hispanic	6.7 (0.8)	3.7 (0.7)
Black, Non-Hispanic	6.9 (2.2)	6.0 (3.1)
Hispanic	0.0 (0.0)	*
Other, Non-Hispanic	8.3 (5.2)	*
Health Status		
Excellent	5.0 (1.6)	1.8 (1.1)
Good	6.4 (1.2)	2.6 (1.0)
Fair	5.0 (1.1)	2.1 (0.9)
Poor	12.4 (2.5)	11.9 (3.0)
Hospitalized in last year	6.2 (1.4)	3.2 (1.1)
Supplemental Coverage		
Medicare only	7.1 (1.6)	5.3 (2.0)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	6.5 (0.8)	3.5 (0.7)
Region		
Northeast	4.4 (1.2)	2.5 (1.2)
North Central	6.8 (1.3)	2.9 (1.1)
South	7.7 (1.3)	6.4 (1.5)
West	7.2 (2.0)	1.6 (1.2)

Table D.10 - continued

Characteristics	Regular Source of Care (N = 1,344)	Specialist (N = 833)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	6.8 (1.2)	2.8 (1.1)
Population under 1,000,000	6.7 (1.2)	4.6 (1.3)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	6.6 (1.5)	5.1 (1.8)
Population under 25,000	6.0 (2.0)	2.5 (1.7)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	7.6 (2.1)	4.4 (2.0)
<u>Health Manpower Shortage Area</u>		
Entire county	5.1 (2.8)	2.7 (2.6)
Part of the county	6.3 (0.9)	4.5 (1.0)
Not a shortage area	7.3 (1.2)	3.0 (1.0)
<u>Assignment Policy</u>		
No assignment program	8.3 (1.1)	5.0 (1.2)
Mandatory assignment	0.0 (0.0)	*
Means tested assignment by law	8.0 (4.4)	0.0 (0.0)
Voluntary assignment program	4.3 (0.9)	2.6 (0.9)

NOTES: *indicates that there are fewer than 25 observations in the cell.

The standard error for each percentage is provided in parentheses.

TABLE D.11
BENEFICIARIES WHO RESPONDED TO QUESTIONS
REGARDING OUT-OF-POCKET COSTS ON A RECENT BILL COMPARED
WITH THOSE WHO DID NOT
(Excluding Medicaid Beneficiaries)

Characteristics	Responded to Questions on Out-of-Pocket Costs (N=576)	Did Not Respond to Questions on Out-of-Pocket Costs (N=962)
Respondent		
Self	85.4%	82.0%
Proxy	14.6	18.0
Age		
< 65 (disabled)	6.4	8.3
65 - 74	51.2	45.6
75 - 84	28.3	27.8
85 and over	14.1	18.3
Sex		
Male	43.2	39.8
Female	56.8	60.2
Income		
Below poverty level	16.5	20.2
100-150 percent of poverty level	21.6	24.8
150-200 percent of poverty level	16.3	16.3
200-300 percent of poverty level	23.7	19.4
Over 300 percent of poverty level	22.0	19.3
Education		
8 years or less	21.6	29.3
9-11 years	16.6	16.8
High school graduate	32.8	28.6
Some college	14.4	14.2
College graduate	14.6	11.1
Race/Ethnic Background		
White, Non-Hispanic	84.9	79.0
Black, Non-Hispanic	11.1	15.2
Hispanic	1.7	2.7
Other, Non-Hispanic	2.3	3.1
Health Status		
Excellent	16.5	14.9
Good	41.2	34.7
Fair	30.6	33.1
Poor	11.7	17.3
Hospitalized in last year	25.8	23.8
Supplemental Coverage		
Medicare only	21.4	24.4
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	78.6	75.6
Region		
Northeast	25.6	21.0
North Central	30.1	27.9
South	32.2	37.4
West	12.0	13.7
Urban/Rural		
Metropolitan		
Population 1,000,000 and over	33.8	32.6
Population under 1,000,000	32.9	34.1
Non Metropolitan		
Population 25,000 and over	21.6	21.8
Population under 25,000	11.7	11.5

Table D.11 - continued

Characteristics	Responded to Questions on Out-of-Pocket Costs (N=576)	Did Not Respond to Questions on Out-of-Pocket Costs (N=962)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	14.6	13.8
<u>Health Manpower Shortage Area</u>		
Entire county	3.7	5.6
Part of the county	57.8	59.0
Not a shortage area	38.5	35.3
<u>Assignment Policy</u>		
No assignment program	52.4	56.4
Mandatory assignment	2.8	2.1
Means tested assignment by law	2.6	3.0
Voluntary assignment program	42.2	38.5
<u>Care of Source</u>		
Regular source of care	95.8	95.1
No regular source of care	4.2	4.9

¹ Defined as \$5,649 for an individual and \$7,126 for a couple, 1988 (U.S. House of Representatives, 1988).

NOTE: Individuals who responded "don't know" to questions regarding out-of-pocket costs are included in column 2.

TABLE D.12
PERCENT OF RESPONDENTS BALANCE-BILLED ON MOST RECENT BILL

Characteristics	Percent Balance Billed (N=920)	Percent Who Don't Know (N=920)
Total	11.7 (1.2)	17.4 (1.3)
<u>Respondent</u>		
Self	12.3 (1.3)	18.6 (1.5)
Proxy	8.7 (2.4)	11.3 (2.6)
<u>Age</u>		
< 65 (disabled)	9.0 (3.5)	12.9 (4.0)
65-74	13.4 (1.8)	17.5 (1.9)
75-84	11.5 (2.1)	16.8 (2.4)
85+	6.5 (2.2)	23.0 (3.6)
<u>Sex</u>		
Male	13.6 (1.9)	17.4 (2.1)
Female	10.4 (1.4)	17.4 (1.7)
<u>Income</u>		
Below the poverty level	7.0 (2.1)	19.1 (3.2)
100-150% of the poverty level	7.6 (2.1)	17.9 (2.9)
150-200% of the poverty level	11.7 (3.0)	21.3 (3.7)
200-300% of the poverty level	14.8 (3.0)	19.4 (3.3)
over 300% of the poverty level	17.6 (3.2)	12.8 (2.8)
<u>Education</u>		
8 years or less	5.4 (1.7)	18.7 (2.7)
9-11 years	8.5 (2.5)	16.0 (3.3)
High school graduate	15.5 (2.4)	22.5 (2.8)
Some college	17.7 (3.7)	12.3 (3.0)
College graduate	12.8 (3.4)	13.3 (3.3)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	12.5 (1.3)	17.0 (1.4)
Black, Non-Hispanic	4.4 (1.8)	19.8 (3.4)
Hispanic	*	*
Other, Non-Hispanic	*	*
<u>Health Status</u>		
Excellent	10.8 (2.8)	14.4 (3.0)
Good	12.6 (1.9)	18.1 (2.2)
Fair	12.4 (2.2)	18.8 (2.5)
Poor	9.8 (2.8)	16.6 (3.4)
<u>Hospitalized in last year</u>	12.0 (2.3)	18.5 (2.7)
<u>Supplemental Coverage</u>		
Medicare only	8.4 (2.3)	28.1 (3.6)
Medicare and Medicaid (with or without supplemental)	n/a	n/a
Medicare and private supplemental (no Medicaid)	13.8 (1.5)	15.7 (1.5)
<u>Region</u>		
Northeast	13.1 (2.5)	18.6 (2.9)
North Central	11.7 (2.2)	17.5 (2.6)
South	10.0 (1.8)	18.0 (2.3)
West	13.9 (3.4)	13.4 (3.4)

Table D.12 - continued

Characteristics	Percent Balance Billed (N=920)	Percent Who Don't Know (N=920)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	11.6 (2.1)	16.4 (2.4)
Population under 1,000,000	10.2 (1.9)	16.5 (2.3)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	14.5 (2.6)	20.7 (2.9)
Population under 25,000	10.9 (3.2)	15.6 (3.4)
<u>Nonmetropolitan, Contiguous to Urban Area</u>	16.1 (3.5)	22.4 (3.8)
<u>Health Manpower Shortage Area</u>		
Entire county	3.1 (3.0)	16.5 (6.1)
Part of the county	10.7 (1.5)	16.7 (1.7)
Not a shortage area	14.2 (2.0)	18.5 (2.2)
<u>Assignment policy</u>		
No assignment program	11.9 (1.6)	17.1 (1.8)
Mandatory assignment	10.8 (7.1)	13.5 (7.5)
Means tested assignment by law	3.8 (3.8)	15.4 (6.5)
Voluntary assignment program	12.2 (1.9)	18.4 (2.2)
<u>Care Source</u>		
Regular source of care	11.9 (1.2)	17.0 (1.3)
No regular source of care	6.9 (4.2)	28.9 (8.2)

* Indicates that there are fewer than 25 observations in the cell.

The standard error for each percentage is provided in parentheses.

NOTE: Only individuals who were willing and able to answer questions concerning costs from a recent bill are included in this table. The first column contains the percent of such individuals who indicated that they were balance-billed. However, since individuals who did not know whether they incurred out-of-pocket costs were not asked about balance-billing, and since some of those individuals may in fact have been balance-billed, the figures in the table represent a very conservative estimate of the rate of balance billing. The figures in column 2 reflect the percentage who indicated that they incurred out-of-pocket costs but did not know whether they were balance-billed.

TABLE D.13
PERCENT OF RESPONDENTS WHO PUT OFF SEEKING CARE IN THE
PAST YEAR BECAUSE OF THE COST

Characteristics	Percent Who Put Off Seeking Care	
	Any Condition (N=1,994)	Serious Condition (N=1,994)
Total	6.9 (0.6)	3.3 (0.4)
<u>Respondent</u>		
Self	7.4 (0.7)	3.7 (0.5)
Proxy	4.2 (1.1)	1.3 (0.5)
<u>Sex</u>		
Male	6.0 (0.8)	3.1 (0.6)
Female	7.6 (0.8)	3.4 (0.5)
<u>Age</u>		
< 65 (disabled)	19.2 (3.1)	10.6 (2.4)
65-74	7.2 (0.9)	3.2 (0.6)
75-84	3.7 (0.8)	1.7 (0.5)
85+	4.2 (1.0)	2.0 (0.7)
<u>Income</u>		
Below the poverty level	11.2 (1.6)	4.9 (1.1)
100-150% of the poverty level	10.3 (1.5)	5.3 (1.1)
150-200% of the poverty level	6.2 (1.5)	2.9 (1.0)
200-300% of the poverty level	6.2 (1.4)	3.3 (1.0)
over 300% of the poverty level	2.1 (0.8)	1.0 (0.6)
<u>Education</u>		
8 years or less	8.1 (1.2)	3.9 (0.8)
9-11 years	9.6 (1.7)	3.9 (1.1)
High school graduate	6.5 (1.1)	3.6 (0.8)
Some college	5.6 (1.5)	3.5 (1.2)
College graduate	3.0 (1.2)	1.4 (0.8)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	6.2 (0.6)	2.9 (0.4)
Black, Non-Hispanic	13.4 (1.2)	7.0 (1.3)
Hispanic	11.6 (4.2)	4.3 (2.6)
Other, Non-Hispanic	6.0 (3.2)	3.2 (1.8)
<u>Health Status</u>		
Excellent	1.9 (0.7)	0.6 (0.4)
Good	5.6 (0.9)	1.9 (0.5)
Fair	8.4 (1.2)	3.6 (0.8)
Poor	13.6 (2.0)	9.7 (1.7)
<u>Hospitalized in last year</u>	9.5 (1.4)	5.2 (1.1)
<u>Supplemental Coverage</u>		
Medicare only	13.0 (1.7)	7.3 (1.3)
Medicare and Medicaid (with or without supplemental)	5.1 (1.4)	4.6 (1.4)
Medicare and private supplemental (no Medicaid)	5.3 (0.6)	2.0 (0.4)
<u>Region</u>		
Northeast	3.6 (0.9)	2.0 (0.7)
North Central	5.2 (1.0)	2.0 (0.6)
South	10.1 (1.2)	5.2 (0.8)
West	7.4 (1.6)	3.0 (1.2)

Table D.13 - continued

Characteristics	Percent Who Put Off Seeking Care	
	Any Condition (N = 1,994)	Serious Condition (N = 1,994)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	6.9 (1.0)	3.4 (0.8)
Population under 1,000,000	5.4 (0.9)	2.1 (0.5)
<u>Nonmetropolitan Area</u>		
Population 25,000 and over	8.1 (1.4)	4.7 (1.1)
Population under 25,000	8.5 (1.9)	3.2 (1.1)
<u>Nonmetropolitan, Contiguous to Urban Area</u>		
	6.1 (1.5)	3.3 (0.4)
<u>Health Manpower Shortage Area</u>		
Entire county	11.6 (3.2)	6.0 (2.3)
Part of the county	5.6 (0.7)	2.5 (0.5)
Not a shortage area	8.1 (1.1)	4.0 (0.8)
<u>Assignment Policy</u>		
No assignment program	7.2 (0.8)	3.3 (0.5)
Mandatory assignment	2.7 (2.7)	0.0 (0.0)
Means tested assignment by law	3.0 (2.3)	2.3 (2.2)
Voluntary assignment program	7.0 (0.9)	3.6 (0.7)
<u>Care Source</u>		
Regular source of care	7.0 (0.6)	3.4 (0.4)
No regular source of care	5.9 (1.6)	2.6 (1.1)

NOTE: The standard error for each percentage is provided in parentheses.

TABLE D.14

**PERCENT OF BENEFICIARIES WHO PAID A MEDICAL BILL
THEMSELVES IN THE PAST YEAR RATHER THAN FILE A CLAIM**

Characteristics	Percent Who Paid A Bill Themselves Rather Than File a Claim (N= 1,994)	Percent with Unsubmitted Bills Exceeding \$75 (N= 1,994)
Total	9.1 (0.7)	2.9 (0.4)
<u>Respondent</u>		
Self	9.9 (0.8)	3.0 (0.4)
Proxy	4.8 (1.1)	2.2 (0.8)
<u>Age</u>		
< 65 (disabled)	9.8 (2.2)	1.9 (1.0)
65-74	11.3 (1.1)	3.5 (0.6)
75-84	7.3 (1.2)	2.6 (0.7)
85+	2.5 (0.7)	1.1 (0.5)
<u>Sex</u>		
Male	10.0 (1.1)	3.2 (0.6)
Female	8.4 (0.8)	2.6 (0.5)
<u>Income</u>		
Below the poverty level	7.0 (1.1)	2.6 (0.7)
100-150% of the poverty level	8.2 (1.3)	3.7 (0.9)
150-200% of the poverty level	9.8 (1.9)	1.8 (0.8)
200-300% of the poverty level	9.6 (1.7)	3.4 (1.1)
over 300% of the poverty level	12.5 (2.0)	3.4 (1.1)
<u>Education</u>		
8 years or less	6.8 (1.0)	2.3 (0.6)
9-11 years	9.3 (1.7)	1.8 (0.8)
High school graduate	9.4 (1.3)	3.0 (0.8)
Some college	9.8 (2.0)	4.6 (1.4)
College graduate	12.9 (2.5)	4.1 (1.5)
<u>Race/Ethnic Background</u>		
White, Non-Hispanic	9.4 (0.8)	3.0 (0.5)
Black, Non-Hispanic	6.6 (0.9)	2.4 (0.6)
Hispanic	5.5 (3.0)	0.0 (0.0)
Other, Non-Hispanic	8.3 (3.7)	2.8 (2.2)
<u>Health Status</u>		
Excellent	8.8 (1.6)	2.4 (0.9)
Good	10.7 (1.2)	3.4 (0.7)
Fair	9.3 (1.2)	2.9 (0.7)
Poor	5.7 (1.3)	2.3 (0.8)
<u>Hospitalized in last year</u>	9.4 (1.4)	3.2 (0.8)
<u>Supplemental Coverage</u>		
Medicare only	8.7 (1.2)	3.1 (0.8)
Medicare and Medicaid (with or without supplemental)	0.0 (0.0)	0.0 (0.0)
Medicare and private supplemental (no Medicaid)	10.2 (0.9)	3.1 (0.5)

Table D.14 - continued

Characteristics	Percent Who Paid A Bill Themselves Rather Than File a Claim (N=1,994)	Percent with Unsubmitted Bills Exceeding \$75 (N=1,994)
<u>Region</u>		
Northeast	7.1 (1.3)	2.4 (0.8)
North Central	9.1 (1.3)	2.9 (0.8)
South	10.5 (1.1)	2.6 (0.6)
West	8.9 (1.8)	4.1 (1.2)
<u>Urban/Rural</u>		
<u>Metropolitan Areas</u>		
Population 1,000,000 and over	7.3 (1.0)	1.7 (0.5)
Population under 1,000,000	9.6 (1.2)	3.1 (0.7)
<u>Nonmetropolitan Areas</u>		
Population 25,000 and over	8.6 (1.4)	3.3 (0.9)
Population under 25,000	13.1 (2.3)	4.3 (1.4)
<u>Nonmetropolitan Contiguous to Urban Area</u>		
	9.0 (1.8)	3.0 (1.0)
<u>Health Manpower Shortage Area</u>		
Entire county	7.7 (2.6)	2.2 (1.4)
Part of the county	7.9 (0.8)	2.5 (0.5)
Not a shortage area	11.1 (1.2)	3.5 (0.7)
<u>Assignment Policy</u>		
No assignment program	9.4 (0.9)	3.0 (0.5)
Mandatory assignment	9.6 (4.7)	4.1 (3.2)
Means tested assignment by law	4.6 (3.2)	2.3 (2.3)
Voluntary assignment program	8.9 (1.0)	2.6 (0.6)
<u>Care Source</u>		
Regular source of care	9.4 (0.7)	2.8 (0.4)
No regular source of care	6.4 (1.6)	2.7 (1.1)

NOTE: The standard error for each percentage is provided in parentheses.

TABLE D.15

**REGRESSION RESULTS: RELATIONSHIP BETWEEN BENEFICIARY
CHARACTERISTICS AND WILLINGNESS TO SWITCH TO A PARTICIPATING PHYSICIAN
(Excluding Medicaid Beneficiaries)**

Explanatory Variables	Whether Would Consider Switching From Regular Physician ¹		Whether Would Consider Switching From Most Recent Specialist Seen ¹	
	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	.213	(1.67)	.389**	(3.05)
Demographic Characteristics				
Whether female	-.094*	(2.15)	-.016	(0.31)
Whether black	.235*	(2.18)	.001	(0.01)
Whether Hispanic	-.180	(1.37)	-.005	(0.03)
Age				
< 65	.221*	(2.35)	.149	(1.51)
75 - 84	-.029	(0.61)	-.067	(1.18)
85+	-.083	(1.10)	-.150	(1.72)
Education				
< 8 years	.042	(0.52)	-.077	(0.80)
9-11 years	.076	(0.91)	-.113	(1.23)
High school graduate	.101	(1.44)	-.115	(1.39)
Some college	.034	(0.44)	-.056	(0.60)
Income/Insurance Coverage				
Income				
Below the poverty level	.031	(0.36)	.210*	(2.14)
100-150% of the poverty level	.049	(0.67)	.046	(0.54)
150-200% of the poverty level	.032	(0.46)	.018	(0.21)
200-300% of the poverty level	.061	(0.94)	.045	(0.63)
Whether have Medicare supplemental insurance	-.054	(0.86)	.008	(0.12)
Health Status (Self-Reported)				
Health excellent	.116	(1.38)	-.050	(0.52)
Health good or fair	.007	(0.10)	.020	(0.27)
Medical Care Arrangements				
Number of Years with Regular Source of Care				
< 1	.265**	(3.10)	-	-
1 - 2	.025	(0.31)	-	-
5 - 10	.119	(1.79)	-	-
> 10	.035	(0.62)	-	-
Source of Referral				
Medical professional	-	-	-.071	(1.15)
Friend or relative	-	-	-.012	(0.17)

Table D.15 - continued

Explanatory Variables	Whether Would Consider Switching From Regular Physician ¹		Whether Would Consider Switching From Most Recent Specialist Seen ¹	
	Coefficient	t-statistic	Coefficient	t-statistic
<u>Geographic Location</u>				
Region				
Northeast	-.023	(0.37)	-.057	(0.79)
South	.091	(1.72)	.175**	(2.90)
West	.086	(1.26)	.091	(1.28)
Urban/Rural				
Nonmetropolitan area under 25,000 population	-.007	(0.10)	-.062	(0.84)
Nonmetropolitan area with population 25,000 and over	.068	(1.37)	.116	(1.85)
Health manpower shortage area	-.071	(0.63)	-.174	(1.72)
<u>Survey Respondent</u>				
Whether proxy respondent	-.192**	(3.14)	.014	(0.19)
Mean of dependent variable	.325		.372	
Number of observations	493		417	
R ²	.132		.107	

¹ In each equation, the dependent variable is coded as 1 if the respondent indicated that he/she would definitely switch, or consider switching, to a PAR physician and 0 if he/she would not consider switching.

NOTE: The equations have been estimated using ordinary least squares. Results from estimating the equations as probit models (not shown) yielded the same qualitative conclusions about which beneficiary characteristics have a statistically significant influence on the dependent variables.

* Coefficient is significantly different from the 5 percent level.

** Coefficient is significantly different from zero at the 1 percent level.

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