Results from the SSA Buy-In Demonstration

Final Report

Prepared for:

Social Security Administration

Prepared by:

The Lewin Group

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Acronyms and Abbreviations

BIC	Beneficiary Identification Code
CMS	Centers for Medicare & Medicaid Services
DHHS	Department of Health and Human Services
DID	Difference in Difference (analysis)
DOB	Date of Birth
DSU	Direct Service Unit (Social Security Administration, Baltimore, Maryland)
HCFA	Health Care Financing Administration
MBC	Monthly Benefit Credited
MBR	Master Beneficiary Record (data)
MEC	MassHealth Enrollment Center
QDWI	Qualified Disabled and Working Individual
QI-1	Qualified Individual 1
QI-2	Qualified Individual 2
QMB	Qualified Medicare Beneficiary
SLMB	Specified Low-Income Beneficiary
SSA	Social Security Administration
SSI	Supplemental Security Income
SSN	Social Security Number

EXECUTIVE SUMMARY

The Medicare Part B Buy-in Demonstration is a national demonstration developed by the Social Security Administration (SSA) to determine how best to increase participation in three Buy-in programs which pay the Part B premiums and, in some cases, Medicare cost-sharing for low-income Medicare beneficiaries: the Qualified Medicare Beneficiary (QMB) program, Specified Low-Income Medicare Beneficiary (SLMB) program, and Qualifying Individual (QI-1) program.[1] Eligibility for all programs is based, in part, on beneficiaries' income and resources.[2] The demonstration tested six different models designed to increase awareness of the program and reduce barriers to enrollment. The evaluated models were implemented in 20 sites in 10 states plus the entire state of Massachusetts.

This report provides detailed information on the outcomes of three of the six models implemented which had activity during fiscal year 2000 – the peer assistance, decision making, and widow(er)s models. This report also includes an assessment of the impact of all of the models relative to one another. *Exhibit ES.1* shows the demonstration sites in all six models. *Exhibit ES.2* provides a discussion of the major features and timing of the demonstration models.

Exhibit ES.1
Buy-in Demonstration Sites

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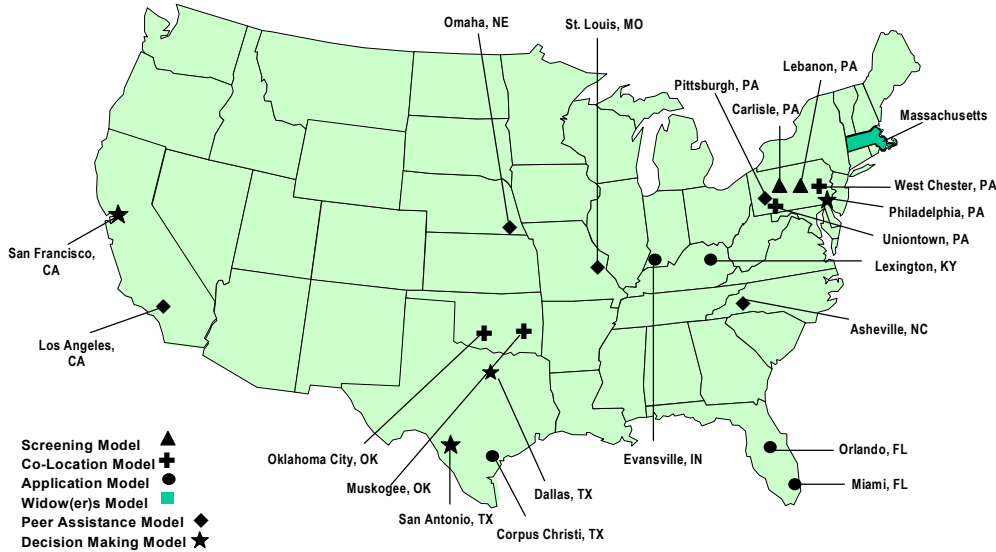
[1] Other Buy-in programs assist Medicare beneficiaries with higher levels of income, high health care costs, and working disabled individuals. This demonstration and evaluation did not target these programs.

[2]

Program	Income Limits	Resource Limits	Funding	Benefits
QMB	Up to 100% poverty guideline	$4,000 Individual or $6,000 Couple	Medicaid funded entitlement	Premiums, deductibles, and coinsurance
SLMB	100% < 120% poverty guideline	$4,000 Individual or $6,000 Couple	Medicaid funded entitlement	Medicare Part B premiums
QI-1	120% < 135% poverty guideline	$4,000 Individual or $6,000 Couple	Federal block grant, first come first serve	Medicare Part B premiums

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Exhibit ES.2   Demonstration Models and Time of Implementation

March 1999 to December 1999
Screening Model. This model tested the use of a Buy-in eligibility screening mechanism administered by SSA. Letters were sent to Medicare beneficiaries, and brochures, posters, and other outreach materials directed potential Buy-in participants to call a special toll-free number at SSA's Direct Service Unit (DSU) or to visit their local welfare, social services, medical assistance, or Social Security office. A SSA worker, using a PC-based program, screened individuals who called the DSU or visited the local Social Security office. If the beneficiary appeared eligible for QMB, SLMB, or QI-1 based on the screening, SSA attempted to set up an appointment to submit an application with the state Medicaid agency. This model was tested in two Pennsylvania sites (Carlisle and Lebanon).
Co-location Model. This model tested the use of a SSA office, rather than a state Medicaid agency, for Buy-in eligibility application intake. Like the screening model, beneficiaries received letters and were directed to call the DSU or contact their local SSA field office to be screened. If the beneficiary appeared eligible based on the screening, SSA staff set up an application appointment with a Medicaid agency employee at the local SSA office. The co-location model was implemented in Oklahoma (Muskogee and Oklahoma City) and Pennsylvania (West Chester and Uniontown).
Application Model. This model tested application completion by SSA employees rather than by Medicaid agency staff. It began similar to the screening and co-location models, but with this model, if the beneficiary appeared eligible based on the screening, SSA set up an application appointment with a SSA employee at the local SSA office. The SSA employee then completed the state's application form for Buy-in, accepted and copied evidence provided at the time of the application, and forwarded the completed application form and evidence to the Medicaid agency for further development (if necessary) and eligibility determination. The application model was implemented in Texas (Corpus Christi), Florida (Orlando and Miami), Kentucky (Lexington), and Indiana (Evansville).
Widow(er)s Model. This model tested an intervention without extraordinary publicity, in which beneficiaries were to be screened for potential Buy-in eligibility when they contacted a designated SSA office to report the death of a spouse. This model evolved over time, discussed below. The widow(er)s model was implemented in Massachusetts (state-wide).
September 1999 to March 2000
Peer Assistance Model. This model was similar to the screening model, except Medicare beneficiaries who contacted an AARP toll-free number were usually not immediately screened, but left their name, telephone number, and times when they were most likely to be at home. An AARP volunteer, rather than a SSA worker, called the beneficiaries later and screened them for Buy-in eligibility. This model was designed to test an intervention primarily independent of SSA, with the exception of mailing the letters. The peer assistance model was implemented in California (Los Angeles), Missouri (St. Louis), Nebraska (Omaha), North Carolina (Asheville), and Pennsylvania (Pittsburgh).[3]
Modification of Widow(er)s Model. In September 1999, the widow(er)s model was modified in response to a low volume of screenings. The field offices began reviewing death reports from funeral directors as leads and sending outreach letters to appropriate clients for screening.
April 2000 to December 2000
Decision Making Model. This variation on the application model had SSA staff conduct application intake and also review the application to make an initial eligibility determination. State agencies still retained ultimate responsibility for the eligibility determination and adjudication, but SSA streamlined the process. This model involved coordination at the regional office level, but also involved significant time and effort at the SSA field offices. The decision making model was implemented in California (San Francisco), Pennsylvania (Philadelphia), and Texas (Dallas and San Antonio).
Further Modification of Widow(er)s Model. In May 2000, field offices began accepting applications from beneficiaries and forwarding them to the state Medicaid agency.

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[3] SSA implemented a variation of the peer assistance model in six other sites (in Arkansas, Kentucky, Missouri, North Dakota, New Hampshire, Oregon, and Washington) in Fall 2000.

This report is the fourth and final report on the results of the demonstration and analyzes the impact of the peer assistance, decision making, and the widow(er)s models, as well as provides comparisons of key results across all demonstration models.[4] This executive summary highlights the impact of all of the models in the demonstration.

I. Outreach Effort

A. SSA Mailed Over 700,000 Letters

From March 1999 through September 2000, SSA sent over 700,000 letters to Medicare entitled beneficiaries in the demonstration areas who were possibly eligible for the Buy-in program. These beneficiaries were identified as being single, with monthly Title II Social Security benefits less than $947 ($960 in 2000), or being married, with monthly Title II benefits combined with their spouses' less than $1,265 ($1,286 in 2000). Only individuals not currently enrolled in the Buy-in program were sent letters. Letters were also sent to individuals meeting the above criteria who would be entitled to Medicare in the following month because they turned age 65 and individuals who received 24 consecutive months of disability insurance benefits.

In addition to the letters, SSA made posters, brochures, public service announcements, and articles for print media available to the field offices. SSA field offices engaged in varying degrees of outreach, including placing posters at the post office, the Office of Aging, senior citizen centers, and the local Medicaid agency; holding question and answer radio shows; and, in field offices serving large Hispanic populations, engaging in outreach specifically targeted to Hispanic beneficiaries. Additional outreach activities were undertaken in San Francisco, one of the decision making sites.

The letters were considered by far to be the most effective form of outreach. The screener data confirmed that a large majority of those screened (about 88 percent) heard about the program through the SSA outreach letter.

B. Characteristics of Individuals Sent Letters

Data from the Master Beneficiary Record (MBR) provided basic information on intended letter recipients' gender, age, and Title II income. Examining the characteristics of the intended letter recipients found that nearly two-thirds were women, nearly 90 percent were age 65 and over, about one-half had Title II income below 100 percent of the poverty guidelines, and some sites

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[4] The first report (The Lewin Group (2000). *Initial Results and Evaluation Design for the SSA Medicare Part B Buy-in Demonstration*. Report prepared for the Social Security Administration, June 2000) examined the initial implementation of the screening, co-location, application, and widow(er)s models and presented descriptive analyses of the individuals targeted for the program. The second report (The Lewin Group (2001a*). Results from Three of the Initial Models of the SSA Medicare Part B Buy-in Demonstration*. September 2001) presented an analysis of the impact of the screening, co-location, and application models on Buy-in enrollment. The third report (The Lewin Group (2001b). *Initial Results from the Peer Assistance, Decision Making, and Widow(er)s Models of the SSA Medicare Part B Buy-in Demonstration*, August 2001) described the implementation of the peer assistance and decision making models, outlined the changes that took place in the widow(er)s model in 2000, and presented descriptive analyses.

had large concentrations of non-whites and individuals expressing a Spanish language preference.

II. Participation and Enrollment Results

For our analyses, we used a nine-month period for follow-up based on the beginning of each model. For most of the models, we examined whether intended letter recipients were screened, and if so, whether they were determined to be potentially eligible. For all the models, we also analyzed the percent that received Buy-in benefits.

A. From Letter to Enrollment

Exhibit ES.3 shows the screening and enrollment status of all intended letter recipients in the screening, co-location, application and decision making model.[5]

Exhibit ES.3
Outcomes for Beneficiaries Sent Letters in the Screening, Co-Location, Application, and Decision Making Sites

(Percentage of those sent letters)

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                        SSA Sent Letters to
                        451,795 Beneficiaries

        33,676 Beneficiaries                    418,119 Beneficiaries
        Were Screened                           Were Not Screened
        (7.5%)                                  (92.5%)

  12,868 Were Screened    20,808 Were Screened
  Potentially Not Eligible  Potentially Eligible
  (2.8%)                  (4.6%)

 176 Enrolled  12,692 Did Not   10,510      10,298 Did Not   9,089        409,030 Did Not
 (0.04%)       Enroll (2.8%)    Enrolled    Enroll (2.3%)    Enrolled     Enroll (90.5%)
                               (2.3%)                        (2.0%)
```

Note: Rounding may cause slight discrepancies in aggregating percents.

Source: The Lewin Group analysis of matched Master Beneficiary Record, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

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[5] This excludes letters sent to beneficiaries in the peer assistance and widow(er)s models. In addition, we eliminated duplicate letters and letters sent to married beneficiaries whose income combined with his or her spouse's income exceeded the limit for couples. The latter were excluded from the analyses because they presumably were not eligible for Buy-in benefits and would bias the participation results downward.

The following findings emerged:

- The letters generated a response rate of about 7.5 percent.

- More than half who responded to the letter (i.e., were screened) were determined to be potentially eligible.

- About four percent of those sent letters enrolled.

Of the potentially eligible group, 10,510, or about half of individuals screened potentially eligible, actually enrolled in the Buy-in program (which accounted for 2.3 percent of the letter-targeted group). Another 9,089 letter targeted individuals who were not screened enrolled (2.0 percent of the letter-targeted group). A small number of those screened potentially not eligible (176) also enrolled.[6] As a result, the overall enrollment rate among letter targeted individuals was 4.4 percent.

Almost half of the letter-targeted individuals who enrolled in the program did not go through the SSA screening process. Individuals may have by-passed the screening process for a number of reasons. Some of these individuals could have gone directly to the state Medicaid agency, an option provided in the letter, while other individuals may have already been in the process of applying for benefits. In addition, SSA staff in states where SSA takes Supplemental Security Income (SSI) benefit applications may not have conducted the PC screen on these individuals because it would have been redundant to the application process. Also, many hospitals, community health centers, and nursing homes will advertise benefits and encourage enrollment processes if the provider is more likely to be paid as a result.

For the peer assistance model, SSA sent 225,673 letters, which resulted in roughly 2.4 percent being screened by volunteers and 3.3 percent enrolling. In the widow(er)s model, Massachusetts field offices mailed 277 letters, of which 8.7 percent were screened, and 5.4 percent enrolled.

III. Probability Analysis

We conducted a probability analysis to provide information about the effect of individual characteristics on the likelihood of being screened and enrolling. In conducting the probability analysis, we estimated the independent effect of each characteristic, holding all other characteristics constant.[7] The following findings emerged:

- **Those with higher Title II income were as likely to be screened, but were less likely to enroll as individuals with lower income.**

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[6] Their financial circumstances may have changed after being screened or information relayed during the screening process was inaccurate.

[7] It is important to emphasize that the probability analysis presented in this section applies to individuals living in the demonstration sites, and that these sites may not be nationally representative.

- **Disabled individuals were significantly more likely to be screened and to enroll than non-disabled individuals**. Disabled individuals may be more knowledgeable about the health care system and public assistance programs, because they generally have been in frequent contact with both for a long time. In addition, depending upon the state, SSA or states enroll Supplemental Security Income (SSI) recipients automatically in the Buy-in program after they become eligible for Medicare. [8]

- **Widow(er)s were significantly more likely to be screened and to enroll than non-widow(er)s.** Widow(er)s rely on their Social Security benefits to a greater extent than do couples.[9] Thus, widow(er)s were less likely to have other income that would make them ineligible, which might have encouraged them to be screened and enroll.

- **Non-whites and individuals with a preference for Spanish materials were much more likely to be screened and to enroll.**

IV.   Impact Analysis

The evaluation strives to measure whether the demonstration increased Buy-in enrollment, over and above what would have occurred in the absence of the demonstration. Examining the change in enrollment over time in a demonstration area captures the effect of the demonstration, but also includes an increase in enrollment unrelated to the demonstration. Nationwide Buy-in enrollment increased during the periods examined for the demonstration. The Centers for Medicare & Medicaid has undertaken a number of efforts to increase Buy-in enrollment independent of this demonstration.

In order to assess whether the demonstration had an effect on Buy-in enrollment, we first calculated the increase in enrollment among residents in the demonstration area who appeared to qualify, based on their Title II income or disability status.[10] We then compared this increase to the increase in enrollment among residents meeting the same criteria in another area in the same state. We selected comparison areas that were similar to the demonstration areas in terms of the economic and demographic characteristics of the residents. However, because differences in characteristics between the two areas remained, we refined the analysis by adjusting the comparison estimates to reflect the characteristics of the individuals in the demonstration area. These analyses were undertaken for all of the models except for the Widow(er)s model where we lacked a comparison group.

We refer to the increase in enrollment in the demonstration less the increase in enrollment in the selected comparison area as the difference-in-difference (DID) estimate, or "impact", of the demonstration. The greater the difference, the larger the estimated effect of the demonstration.

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[8] For 32 (auto-accrete) states, SSA automatically accretes SSI recipients to the Buy-in rolls; in the remaining states, SSA identifies SSI recipients who are eligible for Medicare and the state makes its own accretion determination.

[9] The Social Security Administration (2000). *Income of the Population 55 or Older, 1998* (SSA publication number 13-11871). Washington, DC.

[10] We used the same criteria used to define the letter-target population in the previous analysis, although for this analysis we retained individuals already in the Buy-in program.

Key findings from this analysis include the following:

- **Overall, the demonstration increased enrollment by approximately seven percent.**

The maximum DID overall (across all sites) was 1.5 percentage points. The increase in enrollment as a percent of the pre-period enrollment translates into approximately a seven percent increase in overall participation rates.[11] Alternatively, the impact can be measured in terms of increased Buy-in enrollment per 1,000 letters mailed by model (see *Exhibit ES.4*).

Exhibit ES.4
Additional Enrollment per 1,000 Letters Mailed

Model/Site	Additional Enrollment per 1,000 Letters
Screening	18
Co-Location	20
Application	26
Peer Assistance	7
Excluding Asheville, NC	*10*
Decision Making	18
Excluding San Francisco, CA	*22*
Total	**17**

Source: The Lewin Group analysis.

- **The application model had the largest impact and the peer assistance model the smallest.**

- **Over time, the demonstration increased enrollment in the Buy-in program in all sites. However, several sites were more successful in increasing enrollment for a variety of reasons.**

Although the results of the initial three models suggested that greater involvement of SSA staff and the use of the SSA office for application intake rather than using the state Medicaid agency resulted in progressively higher enrollment rates, the decision making model enrollment indicates that site considerations also play an important role. The models that used the SSA field offices for application intake (co-location, application and decision-making) appear to have a greater impact than the screening model referral to the Medicaid agency; however, the difference is not substantial. In fact, site differences in population characteristics and the role of the QMB benefit relative to full Medicaid benefits can also be important.

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[11] Buy-in enrollment in the demonstration sites averages 20.1 percent at the start of the demonstration. The percentage point change and the percent enrolled should not be viewed as a participation rate among potential eligibles because the letter criteria were restricted to using only Title II income and many of those sent letters would not qualify for Medicare Buy-in because their income and resources exceeded the limits. Based on the non-responders survey, we estimate that roughly half of those in the impact analysis file would likely not qualify for Buy-in based on income and assets. This would mean that among true eligibles, the percentage point increase may be closer to 3.0 (1.5 divided by 0.5).

Corpus Christi, Miami, Dallas and Muskogee all had DID estimates that exceeded two percentage points. In Corpus Christi and Dallas, the allowance of self-declaration for most Buy-in applications in Texas may explain their higher impact estimates. In Miami and Corpus Christi, substantial Hispanic populations that appear to have responded favorably to the outreach efforts may have contributed to the greater impact. Muskogee had a co-located worker who went beyond the intended role and conducted screens.

In general, these results must be viewed with some caution because they are based on a limited number of sites within each model and there may be site-specific variation for which we were unable to account for explicitly in our analysis. For example, Orlando had a much smaller increase than the other application model sites. We speculated that this might be the result of the longer travel distance to the central office location, which may have discouraged potential applicants. In particular, definitive conclusions regarding the screening model are hampered by having only two sites in the same state upon which to base the analysis.

- **In San Francisco, concerted publicity efforts and multiple letters increased enrollment.**

Some beneficiaries in San Francisco were inadvertently sent two letters, while others who should have been sent a letter received no letter, due to an error in the algorithm. The difference in the number of letters sent permitted us to examine three issues more explicitly: 1) the effect of sending the letters; 2) the effect of sending more than one letter; and 3) the effect of the publicity efforts.

In San Francisco, over the May to December period, receiving one letter increased enrollment by 43 percent and receiving two letters increased enrollment by 63 percent, relative to not receiving a letter (see *Exhibit ES.5*). These results provide further evidence of the particular effectiveness of sending a letter. It also indicates that a second letter can increase enrollment rates even more. Relative to the comparison area for San Francisco (Sacramento), enrollment significantly increased for the San Francisco no letter group – among those initially not enrolled in Buy-in, enrollment was approximately 50 percent higher by December. We advise caution in attributing all of the difference between the comparison area and the San Francisco no letter group to the publicity efforts alone because the conduct of the demonstration and the letters sent in San Francisco could have had an indirect effect on this group.

Exhibit ES.5
Rate of Monthly Enrollment in Buy-in
by Number of Letters Sent to Beneficiaries in San Francisco
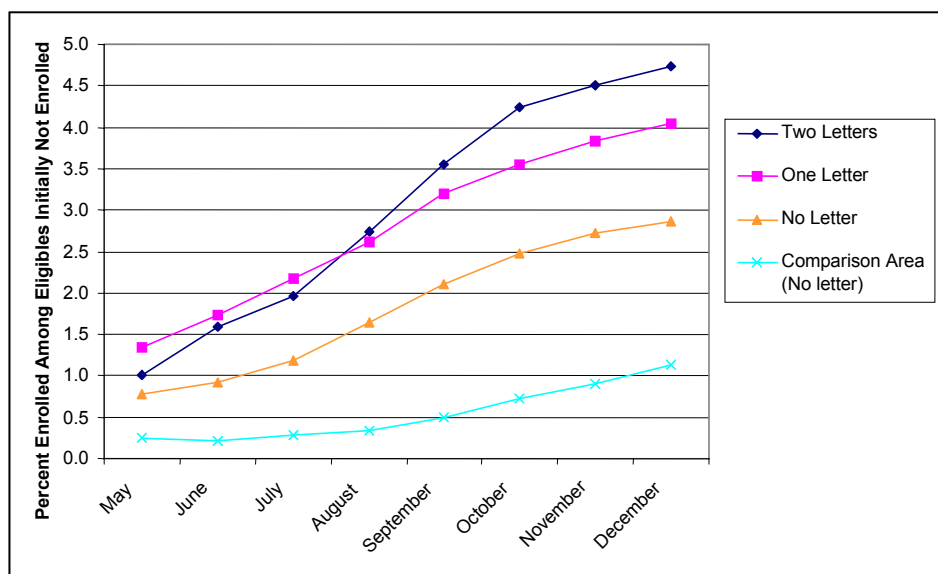
Source: The Lewin group analysis of the MBR letter file and a supplemental file identifying those not sent letters from SSA and Third Party Billing data from CMS.

V.   Lessons and Policy Implications

Three findings from this study have important policy implications for SSA if they were to implement one of these approaches nationwide.

- **Nearly all sites, regardless of the model, increased enrollment in the Buy-in program by the end of the demonstration period. However, the models that used the toll-free number and set up appointments for potentially eligible callers had a much greater impact on Buy-in enrollment relative to the model that required the beneficiary to take several steps with less active assistance.**

The letters were clearly an important component of the increased enrollment because they increased people's awareness of the Buy-in benefit. However, the demonstration results suggest that even more critical is the organization and implementation for dealing with the response to the letters.   In the screening, co-location, application and decision making models, the availability of a central toll-free telephone number where individuals were screened immediately for benefits and, if the individual was potentially eligible, an appointment for application intake was made distinguishes these models from the peer assistance and widow(er)s models. In the former models, the interested party accomplished several steps in one phone call. Active assistance completing the applications was also furnished. In contrast, the peer assistance model required the individuals to call and leave information for a volunteer. The volunteer returned the call, conducted the screening, and sent potentially eligibles an application, that beneficiaries had to complete and return on their own (some volunteers made follow-up calls to offer assistance in completing the application).   The widow(er)s model required SSA field office staff to actively pursue potential eligibles identified through the normal course of business (either by screening when a new widow(er) contacted the field office

to report a death or generating a letter based on death reports), rather than responding to a beneficiary initiated contact from a centrally disseminated letter.

- **Additional efforts to reach beneficiaries appear to increase enrollment.**

The experience in San Francisco suggests that using multiple modes of delivering the message about Buy-in benefits and repeating the message through follow-up mailings both increased enrollment. Letters are probably more cost effective, because for $.31 per person per mailing, enrollment rates increased more than 40 percent for one mailing and increased another 20 percentage points with two letters, while the publicity efforts in San Francisco cost about $25 per potential eligible and appeared to have increased enrollment about 50 percent relative to the comparison area. However, the publicity efforts may have reached groups not otherwise reached by the mailings (e.g., non-English speaking individuals and those with low literacy) and likely enhanced the effects of the letters in San Francisco.

- **A large percentage of those sent letters likely had income and resources that exceeded the eligibility criteria for Buy-in. As a result, SSA might want to conduct additional efforts to more finely target the population of potentially eligible beneficiaries to reduce the costs of the outreach effort.**

The demonstration sites were chosen in part based on the cooperation and willingness of the state partners and the SSA field offices and regional offices. In future demonstration efforts, or if outreach were to be conducted nationwide, planners may want to: 1) consider matching couple's Title II income to the extent possible to eliminate those whose combined Title II income exceeds the couple limits; [12] 2) possibly target low income areas because individuals living in these areas would be less likely to have other resources that exceed the criteria for Buy-in eligibility; 3) target areas with large Hispanic populations because it appears that the letter outreach was particularly effective among this group; and/or 4) explore matching MBR data to IRS 1099 data and tax returns to gain a more complete picture of income.

By targeting the potential eligible population more finely, SSA would reduce mailing costs, staff time spent screening couples not eligible because of their Title II income, and expectations for increased benefits not realized among some couples.

- **Within models, states with more generous income criteria for full Medicaid benefits may have less room for improvement in their enrollment rates which affects the relative impact of the intervention.**

The availability of full Medicaid benefits, particularly the prescription drug coverage, may serve as a greater incentive for individuals to enroll than the QMB/SLMB benefits alone. Demonstration sites in those states with more generous income limits for full Medicaid benefits had higher Buy-in enrollment prior to the demonstration. This greater enrollment among potential eligibles prior to the demonstration in turn reduces the potential impact because fewer individuals are available to newly enroll among the potential eligibles. As a result, expectations for future efforts to increase Buy-in enrollment need to account for these factors.

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[12] SSA might first wish to compare the mailing addresses of spouses (not available for this report) to ensure that married couples were living together. Separated couples are subject to the single limits.

CHAPTER 1:   INTRODUCTION

All Medicare beneficiaries are responsible for several Medicare cost-sharing items, such as deductibles, co-insurance, and Part-B premiums. Part-B premiums are routinely deducted from Social Security benefits. There are programs to assist beneficiaries with limited income and resources with their cost-sharing expenses.

Specifically, the Qualified Medicare Beneficiary (QMB) program uses Medicaid funds to pay the Part B premiums, Part A and Part B deductibles, and co-payments for Medicare beneficiaries living at or below the poverty guideline.[13] Beneficiaries with incomes between 100 percent and 120 percent of the poverty guideline can participate in the Specified Low-Income Medicare Beneficiary (SLMB) program, which uses Medicaid funds towards the payment of the Part B premium. Beneficiaries with incomes between 120 and 135 percent of the poverty guideline can participate in the Qualifying Individual (QI-1) Program, which pays the Part B premium for beneficiaries. Unlike QMB and SLMB benefits, the QI-1 program is not an entitlement, but is funded from a federal block grant to the states; qualified applicants are approved on a first come, first served basis. All three programs generally limit resources to twice the Supplemental Security Income (SSI) resource limit.[14]

Estimates indicate low participation in the Buy-in program.[15] In 1999, SSA implemented four models in selected communities across the country to test different methods for increasing participation. In late 1999 and early 2000, it expanded the demonstration to include two new models. (See the accompanying text box for a brief description of each model and the period of implementation.)

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[13] Note that there is considerable overlap between the QMB and Supplemental Security Income (SSI) programs, so that the SSI recipients with Title II income who meet the age or receipt of 24 months of disability benefits requirements also meet the QMB requirements.

[14] The 1999 and 2000 federal resource limits for Buy-in benefits are $4,000 for individuals and $6,000 for couples. These limits do not usually change over time; however, some states deviate from the federal resource limits. For example, Florida allows an extra $1,000 in resources for individuals.

[15] The most recent study estimated a participation rate of 63 percent among QMB and SLMB eligibles (Rupp, K. and J. Sears [2000]. Eligibility for the Medicare Buy-in Programs, Based on a Survey of Income and Program Participation Simulation. Social Security Bulletin, Vol. 63, No. 3). Studies prior to the demonstration found participation rates between 41 percent of people age 65 and over eligible for QMB in 1994 (Neuman, P., M. Bernardin, E. Bayer, and W. Evans [1994]. Identifying Barriers to Elderly Participation in the Qualified Medicare Beneficiary Program. Washington, D.C.). to 78 percent of eligible QMBs and 16 percent of eligible SLMBs when the institutionalized are included (Moon, M. N., Brennan, and M. Segal [1998]. Options for Aiding Low-Income Medicare Beneficiaries. Washington, D.C.).

Demonstration Models and Time of Implementation

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Screening Model. This model tested the use of a Buy-in eligibility screening mechanism administered by SSA. Letters were sent to Medicare beneficiaries, and brochures, posters, and other outreach materials directed potential Buy-in participants to call a special toll-free number at SSA's Direct Service Unit (DSU) or to visit their local welfare, social services, medical assistance, or Social Security office. A SSA worker, using a PC-based program, screened individuals who called the DSU or visited the local Social Security office. If the beneficiary appeared eligible for QMB, SLMB, or QI-1 based on the screening, SSA attempted to set up an appointment to submit an application with the state Medicaid agency. This model was tested in two Pennsylvania sites (Carlisle and Lebanon).
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Modification of Widow(er)s Model. In September 1999, the widow(er)s model was modified in response to a low volume of screenings. The field offices began reviewing death reports from funeral directors as leads and sending outreach letters to appropriate clients for screening.
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[16] SSA implemented a variation of the peer assistance model in six other sites (in Arkansas, Kentucky, Missouri, North Dakota, New Hampshire, Oregon, and Washington) in Fall 2000.

SSA contracted with The Lewin Group to evaluate the demonstration. This report is the fourth and final report on the results of the demonstration. This report analyzes the impact of the peer assistance, decision making, and the widow(er)s models, as well as provides comparisons of key results across all demonstration models. Our first report examined the initial implementation of the first four models — the screening, co-location, application, and widow(er)s models — and presented descriptive analyses of the individuals targeted for the program,[17] while the second report presented an analysis of the impact of the screening, co-location, and application models on Buy-in enrollment.[18] The third report described the implementation of the peer assistance and decision making models. It also outlined the changes that took place in the widow(er)s model in 2000, and presented descriptive analyses of the individuals targeted for the program and the response to the outreach efforts.[19]

I.   An Overview of the Medicare Part B Buy-in Program

The Medicare Catastrophic Coverage Act of 1988 mandated that starting in 1989, state Medicaid programs share in the health care costs of low-income Medicare beneficiaries, a group including individuals age 65 or older and certain persons with disabilities. As discussed above, beneficiaries receive different levels of benefits depending on their incomes and resources.[20] The states administer the Buy-in programs, with funding shared by the states and the federal government.

Exhibit 1.1 lists the 1999 and 2000 income and resource limits for the Buy-in programs included in the demonstration.

Three other Buy-in programs, which are not within the scope of this demonstration, assist Medicare beneficiaries. The Qualified Disabled and Working Individuals (QDWI) program assists individuals with incomes at or below 200 percent of the federal poverty guideline whose resources do not exceed twice the limit for SSI eligibility, and who lost their Medicare Part A benefits because they returned to work. Medicaid pays their Medicare Part A premiums only. Qualifying Individuals 2 (QI-2) benefits are available to individuals with incomes between 135 and 175 percent of the poverty guideline, subject to the availability of funds. Medicaid pays a portion of QI-2 beneficiaries' Part B premiums, which in calendar year 2000 amounted to $3.09 per month. Finally, Medicaid Only Dual Eligibles benefits are available to individuals who are not eligible for QMB, SLMB, QDWI, QI-1, or QI-2 but who qualify for full Medicaid benefits

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[17] The Lewin Group (2000). *Initial Results and Evaluation Design for the SSA Medicare Part B Buy-in Demonstration*. Report prepared for the Social Security Administration, June 2000.

[18] The Lewin Group (2001a*). Results from Three of the Initial Models of the SSA Medicare Part B Buy-in Demonstration*. Report prepared for the Social Security Administration, September 2001.

[19] The Lewin Group (2001b). *Initial Results from the Peer Assistance, Decision Making, and Widow(er)s Models of the SSA Medicare Part B Buy-in Demonstration*, August 2001.

[20] The 1988 legislation enacted benefits for QMBs beginning in 1989; 1990 legislation added eligibility for SLMBs, beginning in 1991; and, the Balanced Budget Act of 1997 added eligibility for QI-1s, beginning in 1998.

because of their high health care costs.[21] These individuals spend down (i.e., have incomes minus out-of-pocket health care expenses that are below defined income limits and have resources less than the limits) to qualify for these benefits. Because these three programs are not part of the demonstration, the remainder of the report focuses only on the QMB, SLMB, and QI-1 programs.

Exhibit 1.1
Medicare Buy-in Income and Resource Limits

Program	Monthly Income Limits[a]		Resource Limits[b]	Benefits[c]
	1999	2000		
SSI: MO, NC, and TX	Fed SSI (74% poverty)	Fed SSI (74% poverty)	$2,000 Individual or $3,000 Couple	Full Medicaid Benefits
SSI: MA, NE, and PA	100% poverty	100% poverty		
SSI: CA	101% poverty Individual or 132% poverty Couple	102% poverty Individual or 133% poverty Couple		
QMB (100% poverty)	$707 Individual or $942 Couple	$716 Individual or $958 Couple	$4,000 Individual or $6,000 Couple	Premiums, deductibles, and coinsurance
SLMB (<120% poverty)	$844 Individual or $1,126 Couple	$855 Individual or $1,145 Couple	$4,000 Individual or $6,000 Couple	Medicare Part B premiums
QI-1 (<135% poverty)	$947 Individual or $1,265 Couple	$960 Individual or $1,286 Couple	$4,000 Individual or $6,000 Couple	Medicare Part B premiums

Note: Applies to all states except Alaska and Hawaii. The federal SSI level including the $20 general income exclusion was generally $520 for individuals and $771 for couples in 1999 and $533 and $789, respectively in 2000.

[a] Income includes earnings, Social Security benefits, pensions, wages, interest payments, dividends on stocks and bonds, and other income received regularly. The limits are based on percentages of the Department of Health and Human Services (DHHS) poverty guidelines and include the $20 general income exclusion. The QMB limit is 100 percent, SLMB is less than 120 percent, and QI-1 is less than 135 percent of the poverty guideline. Couple limits are for married individuals where *both* husband and wife qualify (i.e., receive Medicare Part A).

[b] Resources include bank accounts, stocks, bonds, and the combined face value of the individual's life insurance policy, if it is $1,500 or more. The value of the individual's owned primary place of residence, one automobile, burial plots, home furnishings, and personal jewelry are not included. Florida allows an extra $1,000 in resources for individuals.

[c] The monthly Medicare Part B premium was $45.50 per month in 1999 and 2000.

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[21] The definition for Medicaid only is based on the Centers for Medicare and Medicaid Services, (CMS') specifications. At the state's option, individuals listed as Medicaid only can actually have income that meets the SLMB or QI limits, but as a result of high medical expenses, qualify for full Medicaid benefits as a result of "spenddown".

II.   Demonstration Sites

Exhibit 1.2 lists the demonstration sites, as they are referenced in this report, and the areas covered by the demonstration. (See *Exhibit 1.3* for a map showing the initial demonstration sites.)

Exhibit 1.2
Buy-in Demonstration Sites

Model/Site	Main Demonstration Area
Screening Model	
Carlisle, Pennsylvania	Cumberland and Perry Counties
Lebanon, Pennsylvania	Lebanon County
Co-location Model	
Muskogee, Oklahoma	Adair, Cherokee, McIntosh, Muskogee, and Wagoner Counties
Oklahoma City, Oklahoma	Oklahoma County
Uniontown, Pennsylvania	Fayette County
West Chester, Pennsylvania	Chester County
Application Model	
Corpus Christi, Texas	Nueces County
Evansville, Indiana	Vanderburgh County
Lexington, Kentucky	Fayette County
Miami Central, Florida	Little Havana, Miami (Dade County)
Orlando, Florida	Osceola and Orange Counties
Peer Assistance Model	
Asheville, North Carolina	Buncombe, Haywood, Henderson, Jackson, Macon, Madison, and Transylvania Counties
Los Angeles, California	Area within east Los Angeles city
Omaha, Nebraska	Omaha City
Pittsburgh, Pennsylvania	Pittsburgh City
St. Louis, Missouri	Franklin, Jefferson, St. Charles, and St. Louis Counties, except for St. Louis City
Decision Making Model	
Dallas, Texas	Dallas City
Philadelphia, Pennsylvania	Philadelphia City
San Antonio, Texas	Bexar County
San Francisco, California	San Francisco County
Widow(er)s Model	
Massachusetts	State of Massachusetts

Exhibit 1.3
Buy-in Demonstration Sites
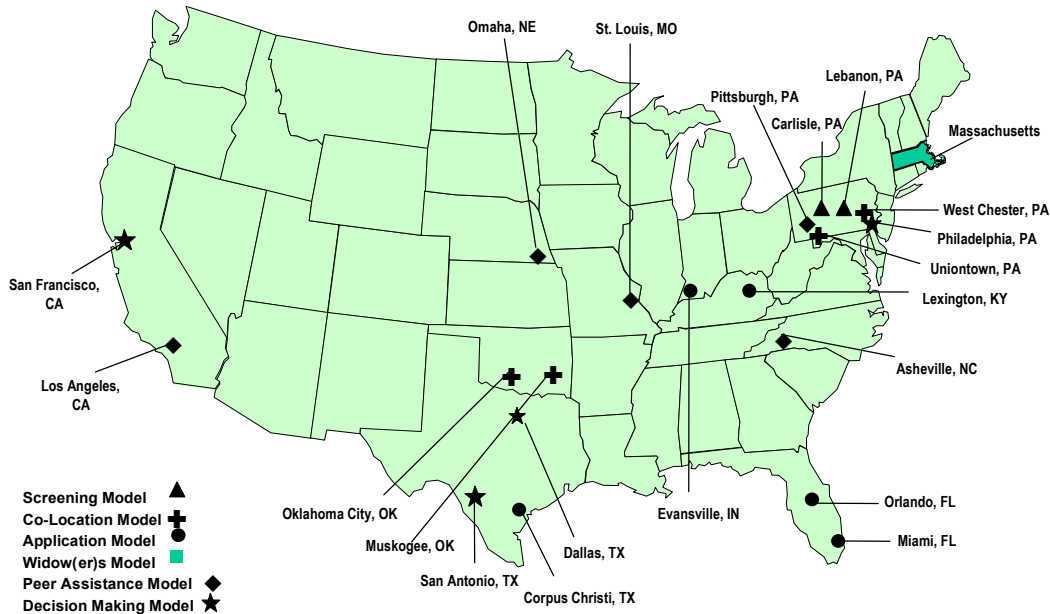
The communities selected for the demonstration comprise a geographically diverse mix of urban and small metropolitan/rural sites. The sites vary in economic and demographic characteristics of their elderly populations. *Exhibit 1.4* summarizes the economic and demographic characteristics of the population age 65 or older living in each site. These data are drawn from the 1990 Census.[22]

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[22] The 1990 Census is the only source of zip code/county level data and information about the percentage in poverty, living arrangements and other information for individuals age 65 and over.

Exhibit 1.4
Economic and Demographic Characteristics
of 1990 Population Age 65 or Older, by City or County
(Percent with Characteristic)

Site	In Poverty	Black	Hispanic	Female	Live Alone	With Self-Care Limits	Own Home	Own Vehicle
Screening Model								
Carlisle	6.8	0.6	0.3	60.0	29.5	14.9	77.9	84.3
Lebanon County	8.7	0.2	0.2	60.3	32.0	16.1	73.6	77.8
Co-location Model								
Chester County	6.1	5.6	0.6	58.8	24.9	16.1	76.2	83.4
Fayette County	14.5	3.6	0.2	60.1	32.4	24.5	79.9	73.7
Muskogee	18.2	15.2	0.2	62.1	39.0	21.7	72.8	78.5
Oklahoma City	13.1	10.8	1.1	61.7	35.0	20.7	78.2	83.0
Application Model								
Fayette County	13.2	12.5	0.3	62.7	32.7	21.3	69.9	75.7
Miami	32.2	11.9	73.1	60.9	27.3	27.4	40.5	54.3
Nueces County	20.2	5.0	36.0	59.0	29.4	22.9	74.5	81.2
Orlando	16.1	16.7	5.3	62.6	34.1	20.6	65.3	73.7
Vanderburgh County	11.6	5.3	0.2	63.2	35.9	21.4	74.7	76.6
Peer Assistance Model								
Asheville, NC	19.3	2.0	0.2	58.1	28.0	20.8	83.9	79.4
Los Angeles, CA	13.7	18.3	31.8	61.6	38.4	26.4	53.4	37.9
Omaha, NE	10.6	7.6	1.1	62.4	35.6	18.3	72.3	73.0
Pittsburgh, PA	14.4	18.2	0.3	63.4	37.7	25.3	64.2	51.6
St. Louis, MO	8.5	2.3	0.3	59.4	28.0	19.9	80.9	82.0
Decision Making Model								
Dallas, TX	14.6	18.9	5.6	62.2	32.6	22.1	72.1	79.3
Philadelphia, PA	16.3	29.3	1.4	63.3	33.9	26.7	73.3	50.0
San Antonio, TX	17.4	6.3	33.8	60.1	27.8	22.7	76.2	79.3
San Francisco, CA	9.9	9.5	8.0	60.2	36.3	22.9	53.2	52.9
Widow(er)s Model								
Massachusetts	9.4	2.3	1.0	61.9	32.3	19.0	63.9	72.2
U.S. Total	**12.8**	**8.0**	**3.4**	**59.9**	**30.5**	**20.1**	**75.0**	**77.7**

Source: The Lewin Group tabulations of 1990 Decennial Census.

Note: For Miami, the tabulations are for the entire City of Miami, whereas the demonstration included only a part of the city (Little Havana).

Miami appears to be the most disadvantaged community among the demonstration sites. It contains the highest percentage of elderly living in poverty, the lowest percentage who own a home or a car, and the highest share of elderly with self-care limitations. Hispanics make up a sizable portion of the senior citizens in Miami, Nueces County, San Antonio, and Los Angeles, while African Americans make up one-third of the Philadelphia's elderly population. Chester County, and Carlisle (Cumberland and Perry counties) in Pennsylvania, and the St. Louis

surrounding area have relatively low shares of seniors living in poverty, higher percentages owning homes and cars, and lower percentages with self-care limitations. Across all sites, about one-third of the senior citizens live alone and about 60 percent are female.

III. Methods and Data Sources

We obtained data from a variety of sources to describe and document the outreach efforts, the screening process, and enrollment. Sources include screener data, Master Beneficiary Record (MBR) data, and Third Party Billing records.

A. Screener Data

The outreach efforts in the decision making and enhanced widow(er)s models directed potential Buy-in participants to call the toll-free number at the DSU or visit their local welfare, medical assistance, or Social Security office. If a potential participant called the DSU or visited the local Social Security office, the individual was screened using a PC program.

The screening program began with basic questions about the individual's Social Security number (SSN), first and last names, address, spouse's name and SSN, zip code, sex, and Spanish language preference (yes/no). If the individual's zip code was outside a demonstration area, the screening was terminated. The interviewer explained to the individual that his or her area of residence was outside the scope of the demonstration and that the screening would not continue. The individual was advised to contact his or her local Medicaid office.

If the individual's zip code was valid, the screening continued with questions concerning how the individual learned about the Buy-in program, resources, and income. If the individual was deemed potentially eligible (i.e., his or her Title II benefit, resources, and income fell below the required amount and he or she met the other necessary criteria), the interviewer was prompted to make an application appointment, and the individual was sent an appointment letter. The PC program saved the information and created a record for each individual.

Every two weeks, the DSU and SSA field offices downloaded the screening records and sent a file with data from the previous two weeks to a central location, where the files were merged. Files were sent to The Lewin Group for analysis.

The screener data used for this report cover the period from April 17, 2000 through January 7, 2001 and include a total of 20,140 individual records.

B. Master Beneficiary Record (MBR) Letter Data

SSA used its MBR data to determine which individuals and couples might be eligible for the Medicare Buy-in program based on Title II income. An extract of the data set provided a list of 272,232 primary beneficiaries or couples (if auxiliaries – i.e., spouses – were matched to the primary who were sent letters) in the decision making sites, 220,426 beneficiaries in the peer assistance sites, and 227 letters in the widow(er) sites after removal of duplicate records. Each record from the letter file contains several demographic variables as well as variables concerning the individual's beneficiary status. For much of the descriptive analysis presented in the *first* report, married couples, in which both partners received benefits based on the primary

claimant, were treated as one unit and all characteristics analyzed drew on the primary beneficiary's information. For example, when age was reviewed, the primary beneficiary's date of birth was used and the spouse's was disregarded. For the analysis presented in *this* report, the analysis follows each individual on the file, separating the primary from the auxiliary.

C. Master Beneficiary Record (MBR) Analysis Data

SSA provided Lewin with an extract from the MBR data that included information on all beneficiaries eligible for Medicare Part A who were residing in the peer assistance states in September 1999, in the decision making sites starting in March 2000, and in Massachusetts in January 1999 and March 2000. Each MBR record contained names, mailing addresses, demographic information, information on the type and amount of Title II benefits, information on whether beneficiaries received their Title II benefits by mail or direct deposit, and other account numbers if the beneficiary was entitled to benefits from other accounts.

D. Third Party Billing Records

The Centers for Medicare & Medicaid Services (CMS) provided files from the Third Party Billing system, which tracks the billing of Medicare premiums from third parties that pay Medicare Part A or Part B premiums on behalf of beneficiaries. Buy-in enrollment records are those in which the third party is a state Medicaid agency paying the Medicare Part B premium. The files covered enrollment from September 1998 to December 2000.

One limitation of the Third Party Billing records was that the reason for Buy-in eligibility (i.e., the program category) was not considered reliable. (The program category is not required for the purposes of payment.) States are requested to use a code designating the program as QMB, SLMB or QI-1, although states have the discretion to use other codes.

E. Group Health Plan Data

The Group Health Plan extract, provided by CMS, included information on all beneficiaries who were enrolled in a Medicare health maintenance organization (HMO), at or before the time of the data pull. If a beneficiary was not in the extract, this meant that that beneficiary had never enrolled in a Medicare HMO at the time of the data pull. Each Group Health Plan record contained names, demographic information, information on the type of Title II benefits, whether the beneficiary was currently enrolled in a Medicare HMO, and an identifier for the Medicare HMO in which the beneficiary was enrolled. Intranet Data

Information for all the decision making demonstration sites was recorded in a centralized database through an intranet program that the Philadelphia regional office developed. The intranet database kept track of pending, cleared, and approved applications. In addition, unsigned and closed applications were recorded. The database included 10,977records after the removal of duplicates.

G. Data Matching

Developing the databases for analyses involved matching across all five data sources available: the MBR letter file (peer assistance and decision matching sites), the MBR analysis extract for

Medicare Part A eligibles in each state, the screener data, (decision making and widow(er)s sites), Third Party Billing records for all states, and Group Health Plan data for all states.

The hazard and probability analyses followed the individuals on the MBR letter file. Thus, records that included both a primary and an auxiliary were divided into two records, which were merged to the screener data (records that included couples were separated before merging), the MBR state data, and the third party data. We retained only records that merged to the MBR analysis extract file for the probability and hazard analyses. We also excluded individuals who were sent letters that we determined had Title II income above 135 percent of the poverty guideline.

The impact analysis followed all individuals on the MBR analysis data files who we predicted would have been eligible for Buy-in benefits based on age or disability status, Title II income, and Medicare Part A enrollment. Unlike the hazard and probability analyses, the impact analysis included all individuals meeting this criteria in the state, including individuals already receiving Buy-in benefits.

We had limited information on which to match the files and we considered some of the data elements more reliable than others from the different files (see ***Exhibit 1.5***). The key information not included on the screening file was date of birth and first name of spouse. Absent reliable names on the screener data, we had to rely primarily on SSNs for matching purposes. We assumed that SSNs in the screener file, but not in the letter file, belonged to individuals who received no letter. Approximately 15 percent of the individuals screened did not match to the letter file. We assumed that SSNs in the letter file, but not in the screener file, belonged to individuals who were not screened. We have no method for estimating the extent to which we did not match correctly because of data entry errors.

For the impact analysis, the MBR analysis extract was merged with the Third Party Billing records data, using the Claimant Account Number (CAN), which is the primary's SSN, and the Beneficiary Identification Code (BIC), which represents the type of beneficiary (e.g., primary claimant, aged wife, or aged widow), because the Third Party file does not include the beneficiary's SSN. In doing so, we were unable to match about 20 percent of the Third Party file to the MBR. Possible reasons for not matching records include: the individual moved into the demonstration state after the MBR file was extracted; the CAN or BIC changed after the MBR file was extracted (e.g., an aged wife became an aged widow); or the CAN or BIC were incorrect.

Exhibit 1.5
Availability and Reliability of Data Elements Available for Matching

Data Element for Matching	MBR Letter Extract	MBR Analysis Extract	Screener	Third Party Billing Records
Social Security Number				
Available	X	X	X	X[c/]
Reliability	◎	◎	⌢	◎
Last Name				
Available	X[a/]	X	X	X
Considered reliable		◎	⌢	◎
First Name				
Available	X[a/]	X	X[b/]	X
Considered reliable		◎	⌢	◎
Beneficiary ID Code (BIC)				
Available	X	X		X
Considered reliable	◎	◎		◎
Date of Birth				
Available	X	X		X
Considered reliable	◎	◎		◎
Zip Code				
Available	X	X	X	X
Considered reliable	⌢	⌢	◎	◎
Mailing Address				
Available	X		X	
Considered reliable	⌢			

◎ Considered reliable.

⌢ Considered less reliable.

Blank cells indicate the data is not available from the file.

[a/] The MBR letter extract included names in label format (e.g., Mr. John Doe all in one field) which made any direct matches to this file based on name prohibitively difficult. We were able to gain a formatted name field for most individuals in the MBR letter extract through matching to the MBR analysis extract using SSN.

[b/] Not available for spouses.

[c/] Each record includes primary's SSN only.

Notes: We determined the SSN to be less reliable than that in the MBR and Third Party Billing record data because of potential keying errors. We assessed the first and last name to be less reliable on the screener again because of potential keying errors. We assessed the zip code and mailing address from the MBR extracts to be less reliable because beneficiaries who have direct deposit have no imperative need to provide updated addresses to SSA.

Exhibit 1.6 highlights the results of the matching and editing process and the final counts used for our analyses among those sent letters in the screening, co-location, and application sites. The total number of letters sent was 492,644. We removed 65 records that appeared to be exact duplicates based upon beneficiary account number, last name, and date of birth. We added 10,684 individuals when we split up SSA identified couples into individuals for the analysis files.

Exhibit 1.6
Sample Sizes

	Added/Excluded Individuals	Analysis File
Sent letter (peer assistance and decision making)		**492,644**
Same individual received two letters	-65	492,579
Couples split to individuals	10,684	503,263
No match to MBR extract	-4,458	498,805
Title II income exceeded couple limit	-52,848	445,957
Title II income exceeded single limit	-11,807	434,150
Screened and sent letter (decision making)		**19,861**
Couples split to individuals	3,958	23,819
No match to MBR Letter Extract	-3,525	20,294
Duplicate records	-218	20076
No match to MBR extract	-169	19,907
Title II income exceeded couple limit	-870	19,037
Title II income exceeded single limit	-640	18,397
Enrolled among those sent letters (decision making)		**11,849**
Title II income exceeded couple limit	-131	11,718
Title II income exceeded single limit	-180	11,538
No match to screened file on SSN	-5,390	6,148

Source: The Lewin Group analysis of match Master Beneficiary Record, screener and Third Party Billing record data.

We also performed matches within the MBR analysis extract to generate a couple Title II income variable for analysis. In the SSA-generated MBR letter extract, Title II income was combined only for individuals who received their benefit wholly based on their spouse's earnings history (i.e., they did not qualify for Title II benefits based on their own work history) and had the same mailing address (approximately four percent of the MBR letter extract file). Many members of a married couple were primary beneficiaries, but were also dually entitled (i.e., they qualified for Title II benefits based on their own work history, but received a higher benefit as the spouse of another primary beneficiary). We attempted to match up dually entitled married beneficiaries so that we had a more accurate estimate of Title II income for eligibility purposes. Once this match was completed, approximately 20 percent of the MBR letter extract were categorized as married. We then determined if the combined Title II income for these couples exceeded 135 percent of the poverty guideline. We excluded 52,848 of these individuals (11 percent of the initial letter file) from the final analysis file because they were not eligible and would bias the results downward

Another 11,807 single individuals who had Title II income over 135 percent of the poverty guideline were also excluded. These individuals: 1) may have received two SSA checks and their total benefits exceeded the limit (i.e., they should not have received a letter);[23] or 2) our use

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[23] Beneficiaries dually entitled to benefits from the retirement and disability trust funds receive two checks, because checks from the two different trust funds cannot be combined.

of the December 1999 monthly Title II income inflated by the cost of living adjustment for the decision making sites may not have been greater than the individual's income at the letter pull date.[24]

In combining the letter extract to the screener data for the decision making model, just under 18 percent of those screened failed to match to the MBR letter file. Possibly, these individuals learned of the Buy-in demonstration through word of mouth, postures, brochures, or publicity efforts. An additional 8 percent) were excluded from the final analysis file because Title II income exceeded 135 percent of the poverty guideline.

To match to the Third Party Billing records data (enrollment data), we restricted the enrollment dates for QMBs to the first of the month following the mailing by site and four months prior to that month for SLMBs and QI-1 to account for retroactive enrollment for these programs.[25] We also restricted enrollment to no later than December 31, 2000.

Approximately 45 percent (5,390 of 11,849) of those enrolled do not appear to have been screened. We discuss potential reasons for this outcome in Chapter 3.

IV.   Contents of the Report

The remainder of this report focuses on the findings from the peer assistance, decision making, and widow(er)s models; earlier reports presented similar information on the earlier models. It concludes by comparing impact findings across all models. The report is organized as follows:

- Chapter 2 describes the outreach efforts and the response to these efforts.

- Chapter 3 describes issues surrounding the application intake process and presents enrollment rates.

- Chapter 4 examines the time from letter receipt to screening and from screening to enrollment.

- Chapter 5 examines the impact of the peer assistance and decision making demonstration models on enrollment.

- Chapter 6 describes implementation of the Widow(er)s model and presents descriptive statistics.

- Chapter 7 provides comparisons of key results across all demonstration models.

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[24] Most of the 11,807 fell into this group. Due to timing and other issues, SSA was not able to provide us with the 2000 MBR data.

[25] SLMB and QI-1 payments for premiums can be paid up to three months retroactively from the date of approval if the individual meets the income and resource criteria during the retroactive time period. We were able to examine the frequency of this practice using the disposition and enrollment dates available on the Kentucky-provided data. We found that between 30 and 50 percent of SLMB and QI-1 awards began in the month eligibility was determined and between 20 and 40 percent began three months prior to the month eligibility was determined. Approximately 10 percent began four months prior to determination. Retroactive enrollment is not at the state's discretion if an individual meets all eligibility criteria (ɘ1902(a)(34) of the Social Security Act). However, in practice, our interviews revealed that some states may not verify eligibility for the retroactive period, and as a result, avoid paying retroactive benefits.

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CHAPTER 2:   PARTICIPATION FROM OUTREACH

This chapter focuses on outreach efforts. It begins by describing the letter campaign and other forms of outreach. It then presents the screening rates and the characteristics of screened beneficiaries. Finally, it examines the probability of being screened for the decision making model (screening data were not available electronically for the peer assistance model).

I.   Types of Outreach

A.   Letter Campaign

SSA relied on letters as the primary means of informing Medicare entitled beneficiaries of their potential eligibility for Buy-in benefits for both the peer assistance and decision making models. However, in the decision making site of San Francisco, SSA pursued additional outreach efforts.

1. Peer Assistance Model

SSA sent the first batch of letters to targeted Medicare entitled beneficiaries living in the peer assistance communities on September 27, 1999. Four additional mailings continued through November 22, 1999 for a total of 220,368 letters.

The letters informed beneficiaries that programs were available to help them pay their Medicare costs. Beneficiaries who had previously indicated a preference to receive SSA information in Spanish received letters in Spanish. In all sites, except for Pittsburgh, letter recipients were asked to call a toll-free number that was operated by a commercial organization under contract with AARP. The individual answering the call took the beneficiary's name, address, and times when the beneficiary might be available to receive a call from a volunteer. Volunteers received a list of calls each day via fax.

The Pittsburgh AARP representative believed that senior citizens would be more likely to call a number associated with a local agency, rather than a number associated with an unfamiliar, national organization. Thus, Pittsburgh maintained its own toll-free line. Volunteers staffed this toll-free number and, in many instances, screened callers immediately. If the volunteers were busy, callers were asked to leave a message on an answering machine, and volunteers returned their calls.

2. Decision Making Model

Targeted beneficiaries living in the decision making communities of Dallas, Philadelphia, and San Antonio were sent letters starting on April 27, 2000. Seventeen additional staggered mailings continued through August 28. SSA sent the first batch of letters for the fourth decision making site of San Francisco, CA on May 8, 2000. After sending seven additional batches of letters, SSA halted mailings in an effort to focus on additional means of publicity in order to increase the number of individuals screened. After a break of approximately one month, nine more mailings occurred in San Francisco starting on July 31 and continued through September 25, 2000. A total of 272,276 letters were mailed in the decision making communities.

Depending on the preference expressed by the beneficiary, letters sent in English or Spanish informed the targeted beneficiaries that programs were available to help them pay their Medicare costs. A two-sided insert was included with the letters explaining, in 14 languages, that the letter was important. The insert encouraged the beneficiary to take the letter to someone who could read it for them. Individuals who met the income and resource limits were advised to call a toll-free telephone number between 7:00 A.M. and 4:00 P.M. in San Francisco and until 7:00 P.M. in the other sites. Bilingual DSU employees were available to screen callers who preferred Spanish, and an SSA worker was available to answer any questions. Also, the letter informed beneficiaries that if they preferred, they could visit their local welfare, medical assistance, or Social Security office.

B.   Other Outreach Efforts in Decision Making Sites

Besides the distribution of letters to potentially eligible residents of the decision making sites, SSA field offices conducted other secondary outreach efforts as part of the demonstration. With the exception of San Francisco, these efforts mainly took place at the onset of the demonstration. Outreach activities included the distribution of posters and brochures, attending local health fairs, giving radio interviews, and conducting presentations at events for seniors. Furthermore, field offices submitted press releases to newspapers, and public service announcements were made on radio stations.

In addition, several outreach efforts occurred that were not part of the demonstration, but which still may affect Buy-in enrollment. For example, in an attempt to increase awareness of the program, HCFA hosted a "Seniors Banquet" for seniors in South Philadelphia. In San Francisco, in August 2000, Kaiser Permanente, a California health maintenance organization, began to include information on Buy-in benefits with its premium statements. Kaiser raised its premiums for Medicare managed care, which, combined with the higher capitation rate for persons dually eligible for both Medicare and Medicaid, created an incentive for the company to see that its lower-income customers received funds to pay for the higher premiums elsewhere.

C.   Special Publicity Effort in San Francisco

Due to a comparatively low response generated during the first two months of the letter outreach effort, SSA interrupted the distribution of letters and expanded the outreach effort in San Francisco. In July, SSA awarded a contract to a small public relations firm, August, Lang and Husak (ALH), to increase awareness of the Buy-in program through an intensive outreach campaign that focused on the benefits offered by the program, rather than the eligibility requirements. Involving community leaders to support the program and disseminate information served as a key component of this outreach effort. In addition, outreach targeted several ethnic groups, children and caregivers of older adults, and the disabled community. Outreach activities took place between August and November, and included presentations at senior centers, the distribution of flyers and brochures in various languages (English, Spanish, Tagalog, Vietnamese, and Cantonese), and obtaining media coverage. The campaign did not include any paid media advertisement. *Appendix A* documents the types and level of outreach conducted as part of this campaign.

II. Who Received Outreach Letters?

A. Timing and Volume

Letters were sent to potential participants of the peer assistance and the decision making models starting in September 1999 and April 2000, respectively, who lived in selected zip codes and met the following criteria:

- Living in peer assistance community, and single and receiving individual monthly Title II Social Security benefits of less than $947 or married and receiving combined benefits of less than $1,265 (equivalent to 135 percent of the 1999 poverty guideline plus the $20 general income exclusion); *or*

- Living in decision making community, and single and receiving individual monthly Title II Social Security benefits of less than $960 or married and receiving combined benefits of less than $1,286 (equivalent to 135 percent of the 2000 poverty guideline plus the $20 general income exclusion);

-AND-

- Entitled to Medicare Part A benefits; *or*

- Attained the age of 64 and 11 months or had received 24 months of disability insurance benefits;

-AND-

- Not receiving Buy-in benefits at the time the letters were generated.

SSA staggered the mailing of the 220,368 peer assistance letters in five separate batches according to the terminal digit of the recipient's Social Security Number (SSN). For the decision making model, 272,276 letters were sent in 22 separate batches depending on the eighth and ninth digits of the recipient's SSN and the demonstration site. After eliminating duplicate letters and letters sent to beneficiaries with Title II income exceeding the limits, the total number of letters sent for the peer assistance model was 198,643 (see ***Exhibit 2.2***). The number of letters sent for the decision making model totaled 235,507 (see ***Exhibit 2.3***).

Exhibit 2.2
Number of Letters Mailed to Medicare Beneficiaries
Peer Assistance by Date in 1999

Mailing Date	Asheville	Los Angeles	Omaha	Pittsburgh	St. Louis	Total Peer Assistance by Mailing Date
September 27	9,415	12,006	3,254	7,164	8,253	40,092
October 12	9,391	11,980	3,226	6,833	8,230	39,660
October 25	9,345	11,925	3,151	7,126	8,169	39,716
November 11	9,295	12,054	3,129	6,958	8,257	39,693
November 22	9,269	11,918	3,206	6,993	8,096	39,482
Total	**46,715**	**59,883**	**15,966**	**35,074**	**41,005**	**198,643**

Source: The Lewin Group tabulations of Master Beneficiary Record data for SSA letter-targeted individuals.

Exhibit 2.3
Number of Letters Mailed to Medicare Beneficiaries
Decision Making by Site and Date in 2000

Mailing Date	Dallas	Philadelphia	San Antonio	San Francisco	Total Decision Making by Mailing Date
April 27	3,806	6,136	718		10,660
May 8	3,896	6,066	707	1,988	12,657
May 15	3,862	6,196	800	3,890	14,748
May 22	3,864	6,127	774	1,963	12,728
May 30	3,986	6,287	787	1,900	12,960
June 7	7,890	10,793	1,555	3,884	24,122
June 12	3,965	6,216	709	1,930	12,820
June 19	4,009	6,291	744	1,903	12,947
June 29	3,869	6,291	769	1,993	12,922
July 5	3,850	6,270	787		10,907
July 10	7,759	9,172	1,520		18,451
July 19	3,787	4,479	743		9,009
July 24	3,870	4,560	809		9,239
July 31	3,861	4,548	741	1,899	11,049
August 7	3,919	4,544	761	1,947	11,171
August 14	3,952	4,301	730	1,517	10,500
August 21	3,865	4,530	756	1,993	11,144
August 28	3,894	4,563	687	1,490	10,634
September 1				1,937	1,937
September 8				1,519	1,519
September 18				1,893	1,893
September 25				1,490	1,490
Total	**77,904**	**107,370**	**15,097**	**35,136**	**235,507**

Source: The Lewin Group tabulations of Master Beneficiary Record data for SSA letter-targeted individuals.

B. Improved Determination of Marital Status

As discussed above, SSA single beneficiaries with Title II income below $947, and beneficiary couples with combined Title II income below $1,265, received letters for the peer assistance model. For the decision making model, SSA single beneficiaries with Title II income below $960, and beneficiary couples with combined Title II income below $1,286, received letters. However, SSA administrative data (MBR) maintain separate records on each Social Security beneficiary. Therefore, spouses' records must be linked to each other to determine combined income and apply the higher couple standard.

A beneficiary identification code (BIC) identifies the record as a primary beneficiary (retired or disabled worker), or a survivor or dependent beneficiary (a spouse, widow or widower, children, or parents). If a person is entitled to both a primary benefit and another benefit type, then he or she is said to be *dually entitled* when marital status is not a factor of Social Security

entitlement. Dually entitled individuals receive the higher of the benefits to which they are entitled. For example, a woman may be entitled to benefits from her own earnings history and also from her husband's earnings history. If the benefit based on her own earnings history is higher, she will receive a benefit from her own account. If her benefit based on her husband's earnings history is higher, she will receive a benefit both from her own account and her husband's account. The MBR provides information to link two types of cases: (1) primary beneficiaries to auxiliaries (usually spouses); and (2) dually entitled primary beneficiaries to their spouses' primary accounts. These linkages cannot be accomplished with 100 percent certainty, though. In addition, the MBR cannot link spouses to each other if both are primary beneficiaries and are receiving the maximum benefits from their own account (i.e., are not dually entitled). That is, if the spouse is eligible for both her own retirement benefits and for benefits as a spouse, then SSA will pay her own benefits first. If the benefits from her own account equal the maximum allowed ($1,433 per month in 2000 for individuals who retired at age 65) then she will not be eligible for benefits from her husband, as well.

SSA chose to send letters to as broad a group of potential Buy-in participants as possible. It linked primary beneficiaries to spouses of type (1) above, adding the criteria that both had the same mailing address. Using this criteria, just under three percent of all letters sent were to couples (i.e., almost six percent of the individuals were married).

We conducted another analysis of the letter recipient MBR file, classifying as married all primary beneficiaries linked to auxiliary spouses and all primary beneficiaries linked to dually-entitled, married beneficiaries (not limiting it to only those with the same address). Using this new criteria, approximately 20 percent of all letter recipients were married. This analysis still underestimates the total number who were married because it does not include those who have their own accounts and are not dually entitled.

Exhibit 2.4 categorizes mailed letters by whether they were sent to singles or couples and whether our analysis captures recipients as single or married (i.e., includes as married those who are dually-entitled).[26]

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[26] In addition, it includes linked spouses who have mailing addresses that differ from the primary beneficiaries'.

Exhibit 2.4
Percent of Individuals Mailed Letters
by Type of Letter Sent and Marital Status

Site	Received Single Letter		Received Married Letter	
	Single	Married (including dually-entitled)	Single	Married (including dually-entitled)
Peer Assistance Model	**78.3**	**17.0**	**0.4**	**4.4**
Asheville	76.1	17.8	0.5	5.6
Los Angeles	80.3	14.3	0.4	5.0
Omaha	79.5	17.2	0.4	3.0
Pittsburgh	78.5	17.2	0.4	4.0
St. Louis	77.6	19.3	0.3	2.9
Decision Making Model	**81.4**	**14.7**	**0.2**	**3.7**
Dallas	79.2	16.9	0.2	3.8
Philadelphia	83.9	13.3	0.1	2.7
San Antonio	73.2	15.1	0.6	11.3
San Francisco	82.6	13.6	0.1	3.6

Source: The Lewin Group tabulations of Master Beneficiary Record data for SSA letter-targeted individuals.

Some individuals were mailed letters because SSA assumed they were single and their individual monthly Title II income fell below the single limit for Buy-in eligibility ($947 or $960). However, their monthly Title II income, combined with their spouses', exceeded the married limit ($1,265 or $1,286). *Exhibit 2.5* shows the number of individuals and percent of the total sample who were mailed a letter, but who appear to have been ineligible due to their combined Title II income. If SSA had used a more targeted approach, they would have excluded these 64,655 individuals from the letter mailings. This represents approximately 13 percent of the total letters mailed and over half of all identified married individuals. Because of their probable ineligibility, future participation analyses exclude these individuals – there is little expectation of enrolling this group into the Buy-in program.[27] We note, however, if the desire is to be as inclusive as possible in the mailings, these individuals could be included in future mailings. The primary cost is only the additional postage because very few of these individuals responded to the letter.

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[27] Married individuals separated for at least one month should be counted as single for eligibility purposes, and perhaps should be included in the analysis, if their income fell below the single limit. Our files do not distinguish between married and separated individuals. We could assume that married couples with different mailing addresses were separated, although we only have addresses for those who received a letter, and not the entire sample (i.e., those who met the income or other criteria for letter eligibility). Although we might be excluding some married, but separated, individuals whose income fell below the single limit, we believe this is a small number. [The BIC informs us that some records are for divorced spouses, as does the address on the MBR for those with dual entitlements.]

Exhibit 2.5
Married Individuals Sent Single Letters and Whose
Title II Income Was at or Above Couple Income Limits

	Combined Title II is at or above income limits	Percent of Total Letters Mailed	Percent of Married (including dually-entitled)
Peer Assistance	**25,976**	**11.6**	**52.2**
Asheville	5,925	11.3	46.4
Los Angeles	4,959	7.6	37.7
Omaha	2,434	13.2	63.2
Pittsburgh	5,187	12.9	58.5
St. Louis	7,471	15.4	67.0
Decision Making	**38,679**	**14.1**	**55.2**
Dallas	15,638	16.7	61.1
Philadelphia	16,997	13.7	59.4
San Antonio	1,114	6.9	19.6
San Francisco	4,930	12.3	49.0

Source: The Lewin Group analysis of undelivered letters and Master Beneficiary Record data for letter-targeted individuals.

C. Characteristics of Intended Letter Recipients

Exhibit 2.6 provides basic information regarding intended letter recipients' gender, age, race, disability and marital status, and Title II income. As this exhibit shows:

- Almost two-thirds (63 percent in peer assistance, 64 percent in decision making) of the individuals mailed letters were female. This varied by site, with San Antonio and Los Angeles letter recipients more evenly distributed between men and women (55 and 58 percent were women, respectively). Comparatively, St. Louis, Omaha and Pittsburgh had a higher percentage of women sent letters (68, 67 and 67 percent, respectively).

- The average age of letter recipients varied little across sites. Not surprisingly, the vast majority in all sites was age 65 or over (88 percent in peer assistance, 86 percent in decision making). Residents who were sent letters in Pittsburgh and San Francisco were older on average, while residents in Texas were, on average, slightly younger.

Exhibit 2.6
Characteristics of Individuals Mailed Letters by Site and Model

	Average Age	Under Age 65 (%)	Female (%)	Spanish Letter Preference (%)	MBC Below Poverty Guideline (%)	MBC as a Percent of Poverty Guideline	Average MBC ($)	Married (%)	Non-white (%)	Widow(er) (%)	Disabled (%)	Medicare+ Choice (%)
Decision Making	72.1	13.7	64.3	2.4	47.0	97.3	658.4	9.6	34.8	25.3	26.7	38.8
Dallas	71.1	16.2	65.5	3.0	46.0	98.4	665.6	9.7	27.0	25.8	27.3	25.2
Philadelphia	72.7	13.0	66.0	0.6	44.0	98.7	672.0	7.5	40.6	27.4	27.9	42.4
San Antonio	69.9	17.7	54.8	11.7	60.0	87.3	568.7	22.7	7.7	20.2	29.8	46.4
San Francisco	73.6	8.7	60.6	2.3	50.0	94.7	639.5	10.0	45.7	19.9	20.3	54.4
Peer Assistance	72.6	12.2	63.2	3.9	45.0	98.5	651.7	11.5	20.6	26.1	25.1	29.8
Asheville	72.2	13.5	61.7	0.0	46.0	98.3	643.3	14.2	4.3	24.0	26.1	0.2
Los Angeles	72.7	10.2	58.1	12.9	51.0	94.4	623.1	13.1	40.2	20.2	21.0	54.2
Omaha	72.7	12.8	66.5	0.1	44.0	99.5	664.6	8.5	13.9	28.2	26.1	14.7
Pittsburgh	73.8	9.8	66.5	0.0	39.0	102.4	680.3	10.1	18.5	32.6	25.1	33.0
St. Louis	71.9	15.3	68.2	0.0	41.0	100.9	673.8	8.7	15.2	30.9	29.3	30.8

Source: The Lewin Group analysis of Master Beneficiary Record data for letter-targeted individuals.

- Individuals mailed letters in Los Angeles and San Antonio expressed a greater preference for receiving letters in Spanish (13 and 12 percent respectively) than residents of the other demonstration sites.

- The percentage of non-white intended letter recipients varied greatly by model with over one-third of letter recipients in the decision making model being non-white while just over one-fifth of targeted beneficiaries in the peer assistance model were non-white.[28] San Francisco, Philadelphia, and Los Angeles all had substantial proportions of non-white letter recipients (46, 41, and 40 percent respectively). In contrast, San Antonio and Asheville had relatively fewer non-white letter recipients (8 and 4 percent respectively).

- Almost half of the individuals mailed letters had a Monthly Benefit Credited (MBC), or monthly Title II monthly income, below 100 percent of the poverty guideline. This varied by site, with St. Louis and Pittsburgh having fewer letter-targeted individuals with Title II income below poverty and San Antonio having more.

- Ten percent of the individuals in the peer assistance communities and 12 percent of individuals in the decision making communities mailed letters were determined to be married from the MBR. That is, 5 percent and 6 percent, respectively, were individuals receiving benefits wholly or partially on their spouse's account. A smaller percentage of letter recipients in Philadelphia were married (8 percent), while San Antonio had a higher percentage than the average (23 percent).

- Approximately one-quarter of intended letter recipients were disabled. San Francisco and Los Angeles had the lowest percentage of disabled letter recipients (20 and 21 percent respectively).

E.   *Discussion of the Number of Letters Sent in San Francisco*

Analysis of the data set containing information regarding individuals mailed letters revealed 3,401 duplicate records from San Francisco. This indicates that 3,401 individuals were mailed two letters informing beneficiaries of the Buy-in program as opposed to one. All but five of these San Francisco duplicates were the result of an error in the algorithm used to determine which individuals were sent letters in each batch of mailings. In the August 7 mailing in San Francisco, targeted beneficiaries were supposed to be sent letters if the eighth digit of their SSN was between 0 and 9 and the ninth digit was 5. Instead, however, SSA reversed this and sent letters to targeted individuals whose eighth digit was 5, and whose ninth digit was between 0 and 9. As a result of this error, individuals whose eighth digit equaled 5 and whose ninth digit was between 0 and 4 or 6 and 9 received two letters. In addition, targeted beneficiaries whose eighth digit was between 0 and 4 or between 6 and 9, and whose terminal digit was 5 received no letter. There were 4,108 such individuals.

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[28] "Non-white" refers to all individuals who do not classify their race "white"; this group is not limited to African Americans.

III. Screening Rates in the Decision Making Model

Exhibit 2.7 shows the number of intended letter recipients and screened beneficiaries by site in the decision making model. Of the 235,507 Medicare beneficiaries mailed letters whose Title II income was less than 135 percent of the poverty guideline, 18,397 were screened as of December 31, 2000. This results in a response rate of 7.8 percent. As this exhibit shows, Philadelphia and San Antonio screened the highest percent of intended letter recipients (8.3 percent). Relative to the other sites, a larger percentage of seniors were living in poverty in these sites; furthermore, San Antonio had the highest share of Hispanics in its elderly population. On the other hand, San Francisco screened relatively few intended letter recipients (6.3 percent). This could be attributed to the relatively low percentage of seniors living in poverty in San Francisco. Moreover, California offers a generous SSI supplement in addition to being an auto-accrete state (i.e., SSA automatically accretes SSI recipients to the Buy-in rolls); thus, it is probable that a smaller percentage of individuals fall within the narrow income range above Medicaid eligibility needed to qualify for Buy-in only benefits.

Exhibit 2.7
Screened Beneficiaries by Site, Decision Making Model

Site	Number Sent Letter	Total Number Screened	Percent Screened
Decision Making	**235,507**	**18,397**	**7.8**
Dallas	77,904	5,984	7.7
Philadelphia	107,370	8,934	8.3
San Antonio	15,097	1,251	8.3
San Francisco	35,136	2,228	6.3

Source: The Lewin Group analysis of matched screener and Master Beneficiary Record data for letter-targeted individuals with Title II income less than 135 percent of the poverty guideline.

IV. Characteristics of Screened Beneficiaries in the Decision Making Model

Compared to intended letter recipients, screened beneficiaries in the decision making sites were two years younger, one and a half times as likely to express a Spanish language preference (3.6 percent versus 2.4 percent), and almost one and a half times as likely to be under age 65 (20 percent versus 14 percent).

Exhibit 2.8 provides basic information on screened beneficiaries' gender, age, marital status, language preference, race, disability status, and Title II income. As this exhibit shows:

*   The average age of screened beneficiaries varied little across sites. About one-fifth of screened beneficiaries were under age 65. The highest percentage of screened beneficiaries under age 65 (27 percent) lived in Dallas. The lowest percentage of screened (11 percent) resided in San Francisco, consistent with having the lowest percentage of letter recipients under age 65.

- Two-thirds of screened beneficiaries were female. San Antonio and San Francisco had a lower than average percentage of screened beneficiaries who were female, consistent with having a lower percentage of letter recipients who were female.

- San Antonio had the highest percentage of screened beneficiaries with an expressed Spanish language preference (66 percent). This is consistent with San Antonio's large percentage of intended letter recipients who expressed a Spanish language preference.

- Almost half of the screened beneficiaries' Monthly Benefit Credited (MBC), or monthly Title II income, was below the federal poverty guideline. This is consistent with the percentage of intended letter recipients with Title II income below the federal poverty guideline.

- Ten percent of screened beneficiaries were married according to MBR data. Consistent with San Antonio's high share of married letter recipients, San Antonio also had the highest percentage of screened beneficiaries who were married (24 percent).

- Just over one third of screened beneficiaries were disabled.

Exhibit 2.8
Characteristics of Screened Beneficiaries by Site, Decision Making Model

	Average Age	Under Age 65 (%)	Female (%)	Spanish Letter Preference (%)	MBC Below Poverty Guideline (%)	MBC as a Percent of Poverty Guideline	Average MBC ($)	Married (%)	Non-White (%)	Widow(er) (%)	Disabled (%)	Medicare+ Choice (%)
Decision Making	70.2	19.9	66.4	3.6	47.0	98.2	664.2	9.5	47.5	26.4	35.6	52.0
Dallas	68.5	25.6	68.3	4.6	47.0	98.5	667.9	8.7	44.7	26.5	39.3	36.9
Philadelphia	71.1	17.8	68.2	1.0	45.0	99.9	680.0	7.3	50.5	29.9	35.7	57.3
San Antonio	68.4	22.9	56.7	15.8	55.0	92.5	599.4	24.0	9.6	20.0	38.8	59.2
San Francisco	71.7	11.0	59.4	5.1	54.0	93.5	627.8	12.3	64.4	16.1	22.9	67.4

Source: The Lewin Group analysis of matched Master Beneficiary Record and screener data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guideline.

V. Probability of Being Screened

A. Methodology

In this section, we estimate the probability of being screened as a function of individual characteristics. The probability model provides information about the effect of individual characteristics on the likelihood of being screened. The dependent variable (being screened) is a qualitative variable that only takes the values 0 (not screened) and 1 (screened). To account for the qualitative nature of the dependent variable, we use a logistic regression to conduct the probability analysis. Because the dependent variable only takes two values, we use a binomial logit model in the estimation.[29]

By estimating the probability of being screened, we can investigate how participation in the demonstration varies with respect to demographic characteristics and Title II income. If certain populations are more likely to respond to outreach, future replication or expansion efforts can benefit from this information. Note that the probability model for being screened applies to demonstration sites and cannot be assumed to hold for the entire country.

The probability of being screened is estimated using the following equation:

$$P = \frac{\exp(\beta x)}{1 + \exp(\beta x)}$$

In this equation, P represents the probability of being screened, X represents the explanatory variables (individual characteristics) that are used to model the probability of being screened, and β represents the coefficients of the explanatory variables. The coefficients of not being screened are normalized to zero. The explanatory variables that are used in the model are the following:

- individual's age in years (Age);

- indicator variable for whether the individual was disabled (Disabled);

- interaction variable between disabled and age (Disabled x Age);

- indicator variable for whether the individual was female (Female);

- indicator for whether the individual had a Spanish language preference (Spanish Preference);

- individual's (if single) or couple's (if married) Title II income as a percentage of the poverty guideline (Title II);

- indicator for whether the individual was enrolled in a Medicare+Choice managed care plan (Medicare+Choice);

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[29] Qualitative choice models are commonly used when the dependent variable represents a qualitative outcome, such as labor force participation (in the labor force/not). Binary choice models are used when the dependent variable takes two values. A logit model is preferable to a linear regression model. A logit model produces predicted probabilities between zero and one, whereas a linear probability model could produce predicted probabilities below zero or above one. A logit model is also preferred to a probit model, because the two models yield similar results, but the logit model is easier to interpret.

- indicator for whether the individual was married (Married);

- indicator for whether the individual was a widow or widower (Widow(er)); and

- indicator for whether the individual was not white (Non-white).

For binary variables (e.g., male/female), the ratio of the probability of being screened for someone with a given characteristic to the probability of being screened for someone without that characteristic is called the odds ratio. For continuous variables (e.g., age and Title II income), the odds ratio indicates the effect of a one unit change on the odds of being screened. The odds-ratio expression for a given variable is independent of the other explanatory variables included in the model. The coefficients of the logit model can be interpreted as follows: the effect of a unit change in an explanatory variable, or of having a given characteristics for binary variables, is to increase the odds of being screened multiplicatively by the factor $\exp(\beta)$ – called the odds or risk ratio. If the odds ratio is greater than one, the odds of being screened are higher for an individual with a one unit increase in the explanatory variable. Conversely, if the odds ratio is less than one, the odds of being screened are lower for an individual with a one unit increase in the explanatory variable. Also, $100 \times (\exp(\beta) - 1)$ gives the percent change in the odds of being screened for a one-unit increase in the explanatory variable (or having or not having the explanatory variable). Because $\exp(0)=1$, the sign of the coefficient estimate indicates whether an increase in the explanatory variable increases (positive coefficient) or decreases (negative coefficient) the odds of being screened.

B. Probability of Being Screened

For the overall sample, all explanatory variables except "Disabled x Age" had a significant effect on the probability of being screened (see **Exhibit 2.9**). In addition, all significant variables, with the exception of "Age", had a positive effect on the probability of being screened. This indicates that the excluded categories (male, white, single, non-widow(er), no Spanish preference, and not enrolled in a Medicare+Choice plan) had a lower probability of being screened.

Specifically, we found that:

- Being female was significantly and positively related to the odds of being screened, with an odds ratio of 1.16. Other research suggests that women tend to make health care decisions for families. Women are also more likely to use health care, which may spirit a response to this health-related outreach activity.[30]

- Being enrolled in a Medicare+Choice (M+C) managed care organization was also significantly and positively related to the odds of being screened, with an odds ratio of 1.8. This may be because beneficiaries enrolled in managed care organizations were better informed about their health care choices, possibly as a result of outreach by the managed care organization, such as that done by Kaiser Permanente is San Francisco. In

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[30] Women make three-fourths of the health care decisions in American households and spend almost two of every three health care dollars, approximately $500 billion annually. (Smith Barney Research (1997). *The New Women's Movement: Women's Healthcare*, April.)

addition, M+C plans have an incentive to encourage Buy-in enrollment because the plan receives a higher payment for Medicaid enrollees.

- Spanish language preference was significantly and positively related to the odds of being screened. Spanish language preference increased the odds of being screened almost two-fold, with an odds ratio of 1.7. This suggests that this form of outreach was particularly effective among those who speak Spanish.[31]

- Being non-white was significantly and positively related to the odds of being screened (with an odds ratio of 1.7).

- Being widowed was significantly and positively related to the odds of being screened (with an odds ratio of 1.1). Because widows are more likely to be financially disadvantaged than non-widows, they tend to rely on their Social Security benefits to a greater extent than couples. This might explain the higher screening rate. An analysis of the Current Population Survey (CPS) found that among individuals age 55 and older, 62 percent of widows' total income and 68 percent of widowers' total income comes from Social Security Title II benefits, in comparison with 54 percent of all individuals age 55 and older.[32]

Exhibit 2.9
Odds of Being Screened: Decision Making Model

Variable	Coefficient	Odds Ratio
Intercept	-2.395***	0.091***
Title II	0.001*	1.001*
Age	-0.012***	0.988***
Disabled	0.222*	1.248*
Disabled x Age	0.002	1.002
Spanish Preference	0.513***	1.671***
Married	0.107***	1.112***
Female	0.146***	1.157***
Widow(er)	0.132***	1.141***
Non-White	0.528***	1.696***
Medicare+Choice	0.609***	1.839***

Statistical significance levels are indicated as *** = 1 percent;
** = 5 percent; * = 10 percent.
Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan and screener data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

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[31] The Spanish language preference variable might be picking up other characteristics of the Spanish speaking population that are not accounted for in our analysis (such as low income). In addition, it is likely that not all Spanish speakers requested SSA forms in Spanish, therefore inferences drawn based on this variable only apply to the population who requested SSA forms in Spanish, not to the entire Spanish-speaking population.

[32] The Social Security Administration (2000). *Income of the Population 55 or Older, 1998* (SSA publication number 13-11871). Washington, DC.

- Being married was significantly and positively related to the odds of being screened (with an odds ratio of 1.2).

- For all beneficiaries, age was significantly and negatively related to the odds of being screened, with an odds ratio of 0.99. This means that with each increase of one year in age, the odds of being screened decreased by one percent. This may be because older, elderly individuals were more likely to be frail or cognitively impaired and may have difficulty responding to the letters. For the disabled, the incremental effect of age was not significant.

- The "Disabled" variable was significantly and positively related to the odds of being screened, with an odds ratio of 1.2. For purposes of this analysis, disabled was defined as having ever received DI benefits, even among those age 65 and over. This may be because disabled individuals are more knowledgeable about the health care system and public assistance programs, and because they have been in frequent contact with the health care system for a long time. The "Disabled" variable should be interpreted in conjunction with the "Age" and "Disabled x Age" variables. *Exhibit 2.10* below displays the probability of being screened by age for disabled individuals, and for non-disabled individuals age 65 and older. Even when the effect of age is taken into account, disabled beneficiaries were still more likely to be screened than non-disabled beneficiaries.

Exhibit 2.10
Probability of Being Screened by Age and Disability Status:
Decision Making
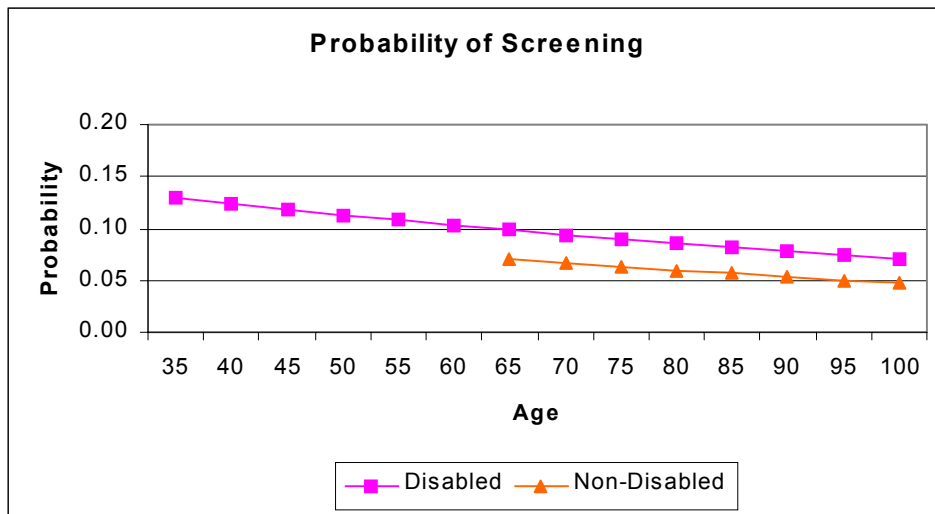
Source: The Lewin Group analysis of matched Master Beneficiary Record, Group
Health Plan and screener data for SSA letter-targeted individuals with Title II
income less than 135 percent of the poverty guidelines.

Exhibit B.1 (in *Appendix B*) presents the odds ratios for the probability of being screened, by site. When the probability of being screened was estimated by site, "Medicare+Choice", "Spanish Preference", "Non-White", and "Age" were significant and positive in all four sites. "Female" and "Widow(er)" were significant in three sites, with "Female" positive in all three sites and "Widow(er)" positive in all but one of the three sites.

CHAPTER 3: APPLICATION AND ENROLLMENT IN THE BUY-IN PROGRAM

In this chapter, we examine beneficiaries' application and enrollment in the Buy-in program. We first review the application process in the peer assistance and decision making models, present application rates for the decision making model, and discuss some of the reasons screened individuals failed to apply. We then explore the reasons why applications are denied. Finally, we present enrollment rates in the demonstration areas and describe the characteristics of enrollees. Information on application intake is drawn from our previous report and from analysis of the intranet data collected by the decision making sites. The findings on enrollment are based on an analysis of the Third Party Billing Records.

I. Application Process

As discussed in Chapter 1, the application process differed considerably for clients in the peer assistance and decision making models. In the peer assistance model, AARP volunteers screened individuals and provided potentially eligible individuals with information on how to apply for benefits with their state Medicaid office; individuals were left to contact the state on their own. In the decision making model, SSA staff scheduled application appointments with the SSA field office for individuals screened potentially eligible. During this contact, which was often a phone interview, the SSA staff helped the individual complete the application. After individuals completed, signed, and sent the application to the SSA field office, it was the responsibility of the SSA staff to review the application and send it to the state Medicaid office.

A. Peer Assistance Model

The requirement that peer assisted individuals had to contact the state Medicaid office on their own to apply for benefits leads us to hypothesize that application rates among individuals screened potentially eligible were lower in these sites than in the decision making model sites. Unfortunately, we lack the information needed to confirm this. In a previous analysis of the earlier models, we presented anecdotal evidence of higher no-show rates in the screening model sites than in the other model sites. Beneficiaries failed to keep or cancelled their scheduled appointments. We hypothesized that the no-show rates were higher for the screening model sites because of beneficiaries' reluctance to visit the state Medicaid agency. Factors that could prevent the beneficiaries from applying for benefits include the inability to travel to the state office; feelings about the state Medicaid agency and receipt of welfare, including apprehension arising from unfamiliarity with the state Medicaid agency, fear of estate recovery, and a desire to avoid stigma associated with welfare receipt; or inability to obtain an application appointment.

B. Decision Making Model

1. Barriers

The decision making model reduced some application barriers by allowing the client to pursue the application process with SSA. However, some decision-making sites reported that individuals screened were apprehensive about applying for state benefits, worrying that the state would take their homes through estate recovery efforts. In addition, many Medicare beneficiaries might have a negative view of welfare receipt, which could discourage them from accepting

assistance that they think of as welfare. This appeared to be less of a problem in the decision making model than in the peer assistance and initial models because clients had little interaction, if any, with the state Medicaid office.

2. From Screening to Application

SSA staff tracked the interview appointments and progress of applications using an intranet database program. We merged the database with screening and enrollment information. ***Exhibit 3.1*** presents the number screened and determined to be potentially eligible, the number of applications sent to the SSA office, and the number of applications approved by SSA and sent to the state Medicaid office. The final columns show the number who enrolled after submitting an application.

As this exhibit shows, among individuals screened and found potentially eligible, about half were from Philadelphia, and more than one-third were from Dallas. San Antonio and San Francisco experienced much lower volume, in part because fewer letters were mailed.

Exhibit 3.1
Screening, Application, and Enrolling in Decision Making Model

	Number Screened Potentially Eligible	Applications Received		Approved Applications		Enrolled	
		Number[a]	Percent of Potentially Eligible	Number	Percent of Applications	Number[b]	Percent of Approved Applications
Dallas	4,505	2,781	61.7	2,452	88.2	2,111	86.1
Philadelphia	6,344	3,901	61.5	3,252	83.4	2,240	68.9
San Antonio	938	692	73.8	564	81.5	502	89.0
San Francisco	988	417	42.2	326	78.2	210	64.4
All Offices	**12,774**	**7,791**	**61.0**	**6,594**	**84.6**	**5,063**	**76.8**

[a] Only applications of individuals screened are included.

[b] Only included individuals who enrolled after SSA had approved their applications.

Source: The Lewin Group analysis of matched screener, intranet, and Third Party Billing Record data.

After SSA screened beneficiaries and found them to be potentially eligible, it attempted to schedule an interview during which an application could be completed. We estimated that at least three-quarters of the individuals found potentially eligible subsequently completed an application interview.[33] This interview was generally conducted over the telephone, although in the case where the individual walked in to the office to be screened, SSA generally conducted an in-person interview. Some individuals may have chosen not to follow up on the interview because of some of the concerns discussed previously because they had not shared all information with SSA during the screening process and knew they were ineligible.

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[33] Information on the number who completed an interview is not included in the table by site because of inconsistencies in when staff began recording information in the database. Some staff began recording information only after they received an application; they did not include individuals who completed an interview, but did not subsequently send an application. Therefore, we believe the 75 percent interview rate slightly underestimates the actual rate.

After the interview was conducted, and the beneficiary appeared to qualify for benefits, the application was sent to the individual to complete missing information, sign the application, and provide required proofs (verification procedures vary by state). As *Exhibit 3.1* shows, only 61 percent of the individuals screened potentially eligible submitted an application to the SSA office by December 2000.

San Francisco received applications from only 41 percent of the potentially eligible, the lowest of all sites. SSA staff in San Francisco questioned the quality of the DSU's screening because when they conducted the interview, they encountered individuals who were clearly ineligible due to their income or resources or who were already receiving SSI benefits and thus automatically receiving QMB benefits. In this case, the beneficiary would be advised not to submit an application. Staff in this city also suggested that some individuals were reluctant to apply for benefits because they were concerned that the state would place a lien against their home.

The Philadelphia offices received applications from just under 62 percent of potentially eligible beneficiaries. This office reported significant problems scheduling application appointments. Beneficiaries who were forced to wait a considerable period of time between screening and application might have been less likely to actually apply than those whose applications were taken immediately or soon after they were screened. If so, the backlogs and scheduling difficulties reported by the Philadelphia sites might have reduced the proportion of clients who would have taken the next step and applied for Buy-in benefits.

The Texas sites required the least amount of verification, allowing clients to "declare" their income and resource amounts. The reduced burden on clients to submit proofs may have increased the application rates relative to the other sites. Also, letter beneficiaries in San Antonio had lower Title II income, which may have led to increased eligibility and need, relative to other sites.

3. Application Reviews

About 85 percent of all applications were approved by SSA and sent to the state Medicaid office. Of the 15 percent that were not approved, about one-third were ineligible because of excess income, one-third because of excess resources, and another one-third because the individuals failed to complete the application process. They either failed to provide information required to verify the application (usually resource information) or withdrew their application. Another two percent were not approved for a variety of reasons, including being already enrolled in the Buy-in program or being deceased (see *Exhibit 3.2*).

These statistics vary by region. Dallas and San Antonio, which required less verification of applicant's income and resources, had fewer incomplete applications than the other regions. Over half were ineligible because of income, while in the other sites, about half of eligibles were the result of incomplete applications.

Exhibit 3.2
Ineligible Applications by Reason: Decision Making Model
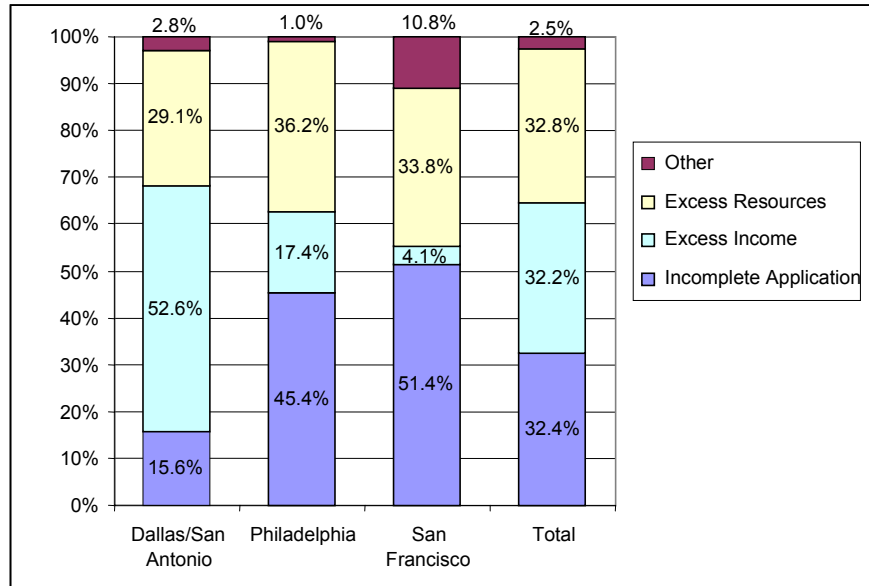
4. Review by State Medicaid Office

We merged the application data with the Third Party enrollment data to estimate the percent of SSA-approved applications that result in Buy-in enrollment. While SSA may approve an application, the state Medicaid agency makes the final decision regarding eligibility. As *Exhibit 3.1* shows, roughly three-quarters of the approved applications resulted in enrollment by December 2000. (The state Medicaid agencies which may uncover issues not discovered by SSA.) Interestingly, a substantially higher percent of Texas applicants enrolled as compared to applicants from other states. Texas, as previously mentioned, has less stringent income and asset verification requirements and has more experience dealing with an SSA office that processed applications when Corpus Christi participated in the application model.

5. Type of Buy-in Program

Exhibit 3.3 presents the type of Buy-in program that beneficiaries were potentially eligible for, according to SSA staff. About the same percentage of beneficiaries applied for and enrolled in the QMB and SLMB programs. Less than one-quarter of the beneficiaries applied for and enrolled in QI-1, reserved for individuals and couples with income between 120 percent and 135 percent of the poverty guidelines. The "Other" category was used more often during the early stages. It includes decisions regarding programs such as QI-2 and QDWI.

Exhibit 3.3
Type of Buy-in Benefit Program: Decision Making Model

Application Status	QMB	SLMB	QI-1	Other
Interviewed Potentially Eligible	35.5	35.7	22.8	6.0
Applications Received	35.2	35.9	22.9	6.0
Approved Applications	37.0	37.9	23.9	1.2
Enrolled	38.1	40.1	21.4	0.4

Source: The Lewin Group analysis of matched screener, intranet, and Third Party Billing Record data.

We also examined the Buy-in program in which beneficiaries enrolled by site (see *Exhibit 3.4*). Dallas and San Antonio enrolled higher shares of beneficiaries into the QMB program. This might reflect the less stringent verification procedures and differences in the characteristics of the population. In addition, the income threshold for full Medicaid eligibility is lower in Texas (74 percent of poverty) than in Philadelphia and San Francisco (100 percent and 97 percent, respectively). Some individuals with incomes between 74 and 100 percent of poverty in Philadelphia and San Francisco who also met the resource limits would have sought out the Medicaid benefits earlier and would not be in the pool of non-participating eligibles.

Exhibit 3.4
Type of Buy-in Benefit Program
Among Enrollees: Decision Making Site

	QMB	SLMB	QI-1	Other
Dallas	41.4	36.8	21.6	0.2
Philadelphia	34.3	43.8	21.5	0.4
San Antonio	42.9	35.7	20.4	0.9
San Francisco	31.7	45.4	21.3	1.7

Source: The Lewin Group analysis of matched screener, intranet, and Third Party Billing Record data.

II. Staff Workload

Application-related activities affected field office workloads in the decision making model. This section presents information on how much time SSA field office staff spent with individuals as a result of the outreach efforts and how much time elapsed between each step of the application process.

From analysis of the intranet data, we estimated that SSA field office staff interacted with a client either over the telephone or in person an average of 2.7 times from screening to by phone application clearance, for a total of about 49 minutes. In most cases, the individual was screened at the DSU, and not by a field office staffer, so this screening occurrence is not included in the estimate.

As *Exhibit 3.5* shows, staff in San Francisco interacted with clients more often than did the other sites. This largely reflects the fact that San Francisco received more "walk-ins" who were screened at the field office, and not at the DSU, than the other sites. San Antonio staff spent more time per action with clients than other staff. This might reflect the site's policy of using rotating detailees (on a temporary assignment from another SSA office) to the San Antonio field office, who were less experienced than staff in other offices.

Exhibit 3.5
Staff Time Spent with Clients in Decision Making Sites

Field Office	Number of Actions	Minutes per Action	Total Minutes
Dallas	2.47	19.3	47.66
Philadelphia	2.58	15.2	39.18
San Antonio	2.44	25.3	61.75
San Francisco	3.42	18.6	63.68
All Offices	**2.73**	**17.9**	**48.94**

Source: The Lewin Group analysis of intranet data.

Exhibit 3.6 presents the number of days between each stage of the application process. We estimated that about 16 days elapsed between when an individual was screened and when he or she completed an application appointment with the field office staff. This varied substantially by office, with San Antonio scheduling and completing an appointment within eight days of screening, on average, and Dallas taking 24 days. As we reported in the previous report, the response to the mailings overwhelmed the appointment calendars in the Dallas office and some of the Philadelphia offices. During the demonstration, there were periods when the DSU could not schedule appointments at these sites because the calendars only permitted scheduling up to one month in the future. This contrasted with San Antonio and San Francisco, which reported little backlog.

Exhibit 3.6
Length of Time Between Screening and Application Decision

Field Office	Days Between:			
	Screening and Application Appointment	Appointment and Application Receipt	Application Receipt and Clear Date	Total Number of Days
Dallas	23.8	24.1	8.1	56.1
Philadelphia	13.6	13.1	18.2	44.8
San Antonio	7.5	8.6	6.1	22.2
San Francisco	8.9	5.4	10.2	24.4
All Offices	**16.4**	**16.1**	**13.0**	**45.5**

Source: The Lewin Group analysis of matched screener, intranet, and data.

Across all sites, another 16 days elapsed, on average, between when SSA field office staff conducted an application appointment and when they received the application from the client. Again, this varied substantially by office, with Dallas taking 24 days and San Francisco taking only 5 days. Part of this difference stems from the fact that San Francisco and San Antonio were

not as overwhelmed from the demonstration as were the Dallas and Philadelphia sites. In addition, San Francisco received the highest share of walk-ins, who might have been able to complete the application that day, while Dallas received the lowest share of walk-ins of all sites.[34]

Finally, it took SSA staff another 13 days after receiving the application to clear it (make an approval or disapproval determination). Dallas and San Antonio required less verification of income and resources compared with the other sites, which reduced the amount of time they had to spend with the application.

III. Enrollment Rates

Among the letters sent to individuals with Title II income less than 135 percent of the poverty guideline, 3.3 percent of the peer assistance intended letter recipients and 4.9 percent of the decision making intended letter recipients enrolled within seven months following the month when letters were first sent (see *Exhibit 3.7*).[35] The higher enrollment rate in the decision making sites may reflect the greater involvement of SSA in the application process or differences in characteristics of the intended letter recipients by model. For example, San Antonio's intended letter recipients had lower Title II benefits, on average, than all other sites; this site had the highest enrollment, as well. The decision making sites also had higher shares of intended letter recipients who were non-white. Only Los Angeles, which also experienced high enrollment, had a similarly high share of non-white targeted letter recipients. There is some evidence that whites are more likely to have income from other sources, as compared to other races, making them less likely to be eligible for Buy-in benefits.[36]

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[34] Approximately 35 percent of screened individuals from San Francisco were screened by the field office and not by the DSU; only 8 percent of screened individuals in Dallas were screened by the field office.

[35] For our analyses, we narrowed the letter-targeted sample to include only those individuals who should have received a letter (i.e., had income less than 135 percent of the poverty guideline and not receiving Buy-in benefits).

[36] In 1996, 54 percent of white, non-Hispanic families with reference member age 65 and over had retirement income compared with 40 percent of African-Americans and 31 percent of Hispanics. About 38 percent of white families with reference member age 65 and over had private pension income compared with 25 percent of African-Americans and 22 percent of Hispanics (CPS Annual Demographic Survey, March 1996 Supplement).

Exhibit 3.7
Number of Beneficiaries Enrolled in Buy-in

Site	Intended Letter Recipients	Total Enrolled	
		Total	Percent
Peer Assistance	**198,643**	**6,584**	**3.3**
Asheville	46,715	1,363	2.9
Los Angeles	59,883	3,212	5.4
Omaha	15,966	440	2.8
Pittsburgh	35,074	873	2.5
St. Louis	41,005	696	1.7
Decision Making	**235,507**	**11,538**	**4.9**
Dallas	77,904	4,173	5.4
Philadelphia	107,370	5,012	4.7
San Antonio	15,097	1,079	7.1
San Francisco	35,136	1,274	3.6

Source: The Lewin Group analysis of matched Master Beneficiary Record, screener, and Third Party Billing Record data for letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

IV. Enrollment in the Decision Making Sites Among the Screened and Not Screened

For the decision-making sites, we examined whether individuals enrolled after being screened. As *Exhibit 3.8* shows, 6,140 enrolled after being screened (52.6 percent of those screened potentially eligible and 2.6 percent of the letter-targeted group). Another 5,398 letter-targeted individuals enrolled without being screened (2.3 percent).

Thus, almost half of the letter-targeted individuals in the decision making model who enrolled in the program did not go through the SSA screening process. Individuals may have bypassed the screening process for a number of reasons. SSA field office staff may not have conducted the Buy-in screen for SSI-eligible individuals, particularly in states where there is an agreement with SSA so that an SSI application is also a Medicaid application and an SSI decision is also a categorically needy Medicaid decision (with rare exceptions). In these jurisdictions, SSA takes Medicaid-related actions for SSI recipients as if it were a state agency. Thus, SSI beneficiaries who are also Medicare beneficiaries in these jurisdictions are automatically enrolled in Medicare Buy-in by SSA (giving rise to the term "auto-accrete states"). Staff were not explicitly instructed to conduct Buy-in screens for SSI-eligible individuals and the screen did not add any information to the SSI application process; therefore, most probably chose not to conduct a screen. Among the decision making demonstrations sites, all three states, California, Pennsylvania, and Texas, are auto-accrete states.

In addition, individuals may have bypassed the screening process for a number of reasons. Some might have gone directly to the state Medicaid agency, an option provided in the letter. Others

might have already been in the process of applying for benefits. Those who might receive more benefits from applying may have initiated the process through other channels including:

- **Contact with the medical system.** Many hospitals and community health centers, nursing homes and some physicians will make patients aware of benefits and encourage enrollment if the provider is more likely to be paid as a result.

- **Other outreach efforts.** As part of their Government Performance Review Act (GPRA) goals, HCFA has been encouraging many outreach efforts to enroll Buy-in eligibles. Grants were provided by the Health Resource Services Administration (HRSA) for outreach and enrollment in the demonstration sites and State Health Insurance Program (SHIP) activities.

- **Medicare conversions**. Individuals may have already been in a state's Medicaid system when they became eligible for Medicare benefits. A higher proportion of those enrolled who were not screened were under age 65 (39 percent versus 23 percent) and thus disabled or Medicare entitled because of end-stage renal disease. The higher enrollment rate without screening among those who receive Social Security benefits on the basis of disability may be the result of SSI Medicaid beneficiaries becoming entitled to receive Medicare and Buy-in benefits.[37]

- **Otherwise enrolled.** Some individuals may have become entitled to Buy-in through another Medicaid enrollment or through SSI entitlement, which had not been noted on the MBR when the record was selected to receive a letter.

In San Francisco, more than twice the number of letter recipients enrolled directly in the program than enrolled after being screened. SSA staff from these offices remarked that they did not screen individuals they determined to be SSI-eligible beforehand. In addition, California offers a supplement to the federal SSI payment, increasing the number who are eligible for SSI relative to Pennsylvania and Texas.[38]

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[37] In California, Pennsylvania, and Texas, SSA automatically enrolls SSI recipients in Buy-in programs.

[38] Resource limits for SSI remain the same across the states ($2,000 for singles, and $3,000 for couples).

Exhibit 3.8
Number of Beneficiaries Screened and Enrolled in Decision Making Model

	Decision Making	Dallas	Philadelphia	San Antonio	San Francisco
Intended Letter Recipients	235,507	77,904	107,370	15,097	35,136
Persons Screened	18,397	5,984	8,934	1,251	2,228
Percent	7.8	7.7	8.3	8.3	6.3
Persons Screened Potentially Eligible					
Total	11,664	4,289	5,690	807	878
Percent of Letters	5.0	5.5	5.3	5.3	2.5
Enrolled and Screened					
Total	6,140	2,505	2,691	566	378
Percent of Letters	2.6	3.2	2.5	3.7	1.1
Enrolled and Not Screened					
Total	5,398	1,668	2,321	513	896
Percent of Letters	2.3	2.1	2.2	3.4	2.6
Total Enrolled					
Total	11,538	4,173	5,012	1,079	1,274
Percent of Letters	4.9	5.4	4.7	7.1	3.6

V. Characteristics of Enrollees

Exhibit 3.9 provides demographic and Title II benefit information on peer assistance and decision making letter recipients who enrolled. For the decision making model, this exhibit also provides the characteristics of enrollees who were screened and found potentially eligible, and enrollees who were not screened. Beneficiaries who were not screened bypassed the screening process and visited the local welfare or medical assistance office directly. We therefore refer to them as direct enrollees.

Exhibit 3.9 reveals significant differences in characteristics of the enrollees by site that reflect largely differences in the characteristics of the elderly population. For example, enrollees in Los Angeles and San Antonio were much more likely than other enrollees in other sites to request SSA materials in Spanish, reflecting the Spanish-speaking population in these cities. More than half of the San Francisco and Philadelphia enrollees, and close to half of enrollees in Dallas and Los Angeles, were non-white. Enrollees in Los Angeles, San Francisco, San Antonio, and Asheville received lower MBCs than in other sites, which was also true of letter recipients in these sites.

Exhibit 3.9 also compares the direct enrollees to the screened enrollees in the decision making sites. As this exhibit shows:

- **Direct enrollees were younger on average**. Overall, direct enrollees were younger and, thus, more likely to be disabled than screened enrollees. Disabled individuals may enroll directly because they are more knowledgeable about the health care system and public assistance programs, because of past contact with both. In addition, HCFA or states may

automatically enroll SSI recipients in the Buy-in program after they become eligible for Medicare.

- **Direct enrollees had lower Title II income than screened enrollees.** Sixty-eight percent of direct enrollees and 49 percent of screened enrollees had monthly Title II benefits that were below the poverty guideline. On average, direct enrollees had monthly Title II benefits that were $83 less than screened enrollees.

- **Direct enrollees were less likely to be widowed than screened enrollees.** Perhaps related to the younger age of direct enrollees, a smaller share of direct enrollees (23 percent) were widowed than screened enrollees (28 percent).

Exhibit 3.9
Characteristics of Enrollees by Site and Model

Site	Average Age	Under Age 65 (%)	Female (%)	Spanish Letter Preference (%)	MBC Below Poverty Guideline (%)	MBC as a Percent of Poverty Guideline	Average MBC ($)	Married (%)	Non-White (%)	Widow-(er) (%)	Disabled (%)	Medicare+ Choice (%)
Peer Assistance Enrollees (Total)	**65.4**	**38.0**	**58.9**	**13.0**	**62.0**	**87.4**	**582.5**	**9.9**	**34.0**	**21.4**	**46.1**	**24.4**
Asheville	67.9	34.6	66.0	0.1	64.0	88.6	591.8	8.2	10.1	29.4	49.7	0.1
Los Angeles	65.5	35.3	50.8	26.4	64.0	84.7	559.8	13.5	45.3	14.9	36.9	32.2
Omaha	62.0	47.7	65.0	0.5	55.0	92.4	616.9	7.3	32.7	22.3	60.0	20.7
Pittsburgh	66.1	39.0	66.9	0.1	60.0	90.8	612.7	4.8	30.7	30.5	52.1	29.8
St. Louis	61.1	49.7	68.4	0.0	59.0	90.4	609.0	4.7	33.2	23.6	64.9	31.3
Decision Making Enrollees (Total)	**66.2**	**34.7**	**62.5**	**5.0**	**57.9**	**91.6**	**622.9**	**8.4**	**48.5**	**25.5**	**46.9**	**38.7**
Dallas	66.3	33.9	67.4	5.8	58.0	92.3	626.9	7.9	47.9	27.4	46.5	30.3
Philadelphia	66.2	35.5	62.5	1.9	55.7	93.3	639.2	5.4	54.7	27.5	48.6	42.5
San Antonio	65.9	34.1	55.6	17.6	63.7	88.4	579.3	21.2	11.4	21.6	48.0	54.6
San Francisco	66.0	34.6	52.3	3.7	61.2	86.1	582.9	10.8	57.5	14.5	40.3	38.0
Decision Making Screened Enrollees	**67.6**	**29.3**	**65.5**	**4.3**	**49.0**	**97.3**	**661.6**	**8.6**	**46.7**	**27.8**	**44.4**	**49.6**
Dallas	66.1	33.9	69.2	4.6	50.0	97.4	663.2	7.5	47.9	27.8	47.5	36.5
Philadelphia	68.8	25.8	65.4	1.5	46.0	99.0	678.1	5.9	51.7	30.6	42.8	57.6
San Antonio	66.9	29.1	57.0	15.7	58.0	93.3	611.7	23.3	9.9	22.1	45.2	64.2
San Francisco	69.4	23.3	54.8	4.8	57.0	90.7	608.5	13.5	58.5	16.1	34.1	57.4
Decision Making Direct Enrollees	**64.6**	**40.9**	**59.0**	**5.8**	**68.0**	**85.2**	**578.9**	**8.1**	**50.5**	**22.9**	**49.7**	**26.4**
Dallas	66.5	33.8	64.6	7.7	70.0	84.6	572.5	8.6	47.8	26.9	45.1	20.9
Philadelphia	63.2	46.8	59.2	2.3	67.0	86.6	594.0	4.9	58.1	23.8	55.3	25.1
San Antonio	64.7	39.7	54.1	19.7	70.0	83.0	543.6	18.8	13.1	21.1	51.0	44.1
San Francisco	64.5	39.4	51.2	3.2	63.0	84.1	572.1	9.6	57.1	13.8	42.9	29.8

Source: The Lewin Group analysis of matched Master Beneficiary Record, screener, and Third Party Billing Record data for letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

VI.   Probability of Enrolling

We estimated the probability of enrolling using logistic regression and the same explanatory variables that were used to estimate the probability of being screened. The variables that were used in the model are the following:

- individual's age in years (Age);

- indicator variable for whether the individual was disabled (Disabled);

- interaction variable between disabled and age (Disabled x Age);

- indicator variable for whether the individual was female (Female);

- indicator for whether the individual had a Spanish language preference (Spanish Preference);

- individual's (if single) or couple's (if married) Title II income as a percentage of the poverty guideline (Title II);

- indicator for whether the individual was enrolled in a Medicare+Choice managed care plan (Medicare+Choice);

- indicator for whether the individual was married (Married);

- indicator for whether the individual was a widow or widower (Widow(er)); and

- indicator for whether the individual was not white (Non-white).

For binary variables (e.g., male/female), the ratio of the probability of enrolling for someone with a given characteristic to the probability of enrolling for someone without that characteristic is called the odds ratio. For continuous variables (e.g., age and Title II income), the odds ratio indicates the effect of a one unit change on the odds of enrolling. The odds-ratio expression for a given variable is independent of the other explanatory variables included in the model. The coefficients of the logit model can be interpreted as follows: the effect of a unit change in an explanatory variable, or of having a given characteristic for binary variables, is to increase the odds of enrolling multiplicatively by the factor exp (β) – called the odds or risk ratio. If the odds ratio is greater than one, the odds of enrolling are higher for an individual with a one unit increase in the explanatory variable. Conversely, if the odds ratio is less than one, the odds of enrolling are lower for an individual with a one unit increase in the explanatory variable. Also, 100 x (exp (β) – 1) gives the percent change in the odds of enrolling for a one-unit increase in the explanatory variable (or having or not having the explanatory variable). Because exp(0)=1, the sign of the coefficient estimate indicates whether an increase in the explanatory variable increases (positive coefficient) or decreases (negative coefficient) the odds of enrolling.

Exhibit 3.10 presents the coefficient estimates and odds ratios for the probability of enrollment (screened and not screened) among letter recipients overall and by model. For the overall sample, all explanatory variables, except "Female", have a significant effect on the probability of enrolling.

Exhibit 3.10
Coefficients for and Odds of Enrolling

Variable	Peer Assistance		Decision Making	
	Coefficient	Odds Ratio	Coefficient	Odds Ratio
Intercept	-0.869***	0.419***	-1.306***	0.271***
Title II	-0.011***	0.988***	-0.008***	0.992***
Age	-0.027***	0.973***	-0.023***	0.978***
Disabled	0.998***	2.712***	1.214***	3.367***
Disabled x Age	-0.005**	0.994**	-0.009***	0.991***
Spanish Preference	1.267***	3.55***	0.714***	2.043***
Married	0.077*	1.08*	0.131***	1.14***
Female	-0.103***	0.901***	-0.031	0.97
Widow(er)	0.317***	1.373***	0.468***	1.596***
Non-White	0.524***	1.689***	0.467***	1.596***
Medicare+Choice	-0.189***	0.827***	0.184***	1.202***

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

"Age" was significantly and negatively related to the odds of enrolling, for both models and for the disabled and non-disabled. The older the beneficiary, the less likely it was that the beneficiary would enroll (see *Exhibit 3.11*).

Exhibit 3.11
Probability of Enrolling by Age and Disability Status
Peer Assistance Model
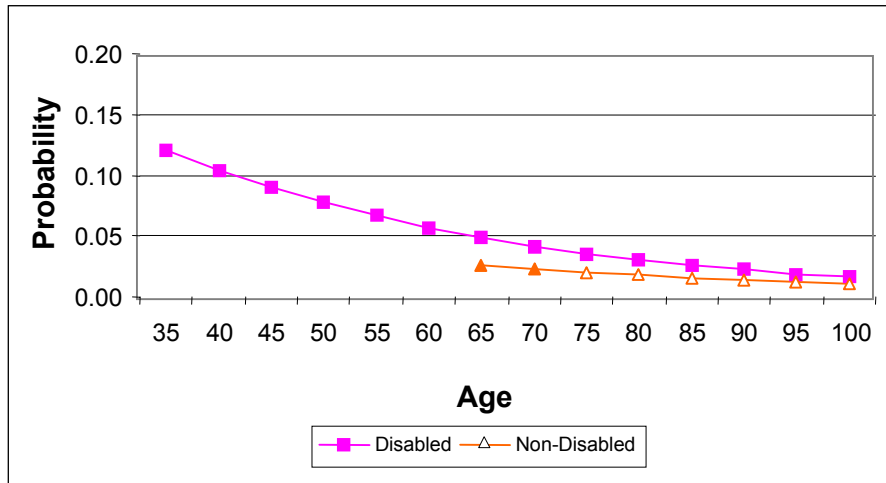
Decision Making Model

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

In addition, we found the following:

- "Disabled" should be interpreted in conjunction with "Disabled x Age". For purposes of this analysis, disabled was defined as having ever received DI benefits, even among those age 65 and over. "Disabled" was significantly and positively related to the odds of enrolling, whereas "Disabled x Age" was significantly and negatively related to the odds of enrolling. The disabled were more likely to enroll (until well past age 100 in both models) despite the negative coefficient on "Disabled x Age".

- Spanish language preference was significantly and positively related to the odds of enrolling, with an odds ratio of 3.55 in the peer assistance model and 2.04 in the decision making model. Beneficiaries with Spanish language preference were substantially more likely to enroll than beneficiaries with no Spanish language preference.

- Being married was significantly and positively related to the probability of enrolling, with an odds ratio of 1.10 in both models.

- Title II income was significantly and negatively related to the probability of enrolling, with an odds ratio of 0.99 in both models. A percentage increase in Title II income decreased the odds of enrolling by one percent relative to a beneficiary with no Title II income. A high Title II income (expressed as a percentage of the poverty guideline) increased the odds of exceeding the income limits for the Buy-in programs and reduced the odds of enrolling (see ***Exhibit 3.12***).

Exhibit 3.12
Odds of Enrolling by Income as a
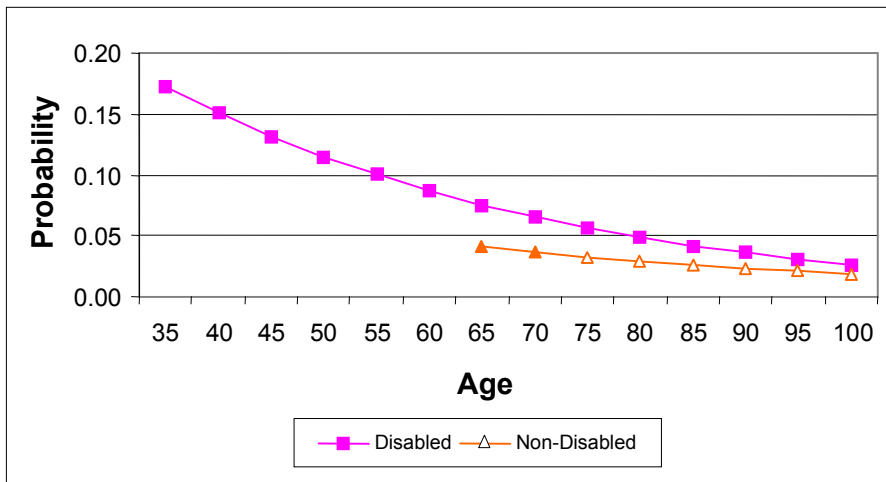**Percent of the Poverty Guideline**

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

We also estimated the probability of enrolling among letter recipients who were screened and found potentially eligible in the decision making model (see ***Exhibit 3.13)***. The odds of enrolling and the odds of enrolling among the potentially eligible explain two different events. The odds of enrolling captures eligibility among beneficiaries who were sent letters. For example, widow(er)s and non-whites might be more likely to enroll because they were more likely to have lower incomes. However, the sample for the odds of enrolling among potentially eligible has already eliminated most of the ineligible beneficiaries. The odds of enrolling among potentially eligible captures enrollment among beneficiaries who were likely eligible. Non-whites were more likely to be eligible for Buy-in benefits, but they did not necessarily pursue Buy-in benefits to the same

extent as whites. Being disabled was not significantly and positively related to the probability of enrolling among the potentially eligible, as it is for all letter-targeted beneficiaries.

Exhibit 3.13
Odds of Enrolling among Potentially Eligible
Decision Making Model

Variable	Coefficient	Odds Ratio
Intercept	2.085***	8.045***
Title II	-0.002**	0.998**
Age	-0.025***	0.975***
Disabled	-0.126	0.882
Disabled x Age	0.002	1.002
Spanish Preference	0.071	1.073
Married	-0.007	0.993
Female	-0.063	0.939
Widow(er)	0.142***	1.153***
Non-White	-0.26***	0.771***
Medicare+Choice	0.062	1.064

Statistical significance levels are indicated as *** = 1 percent;
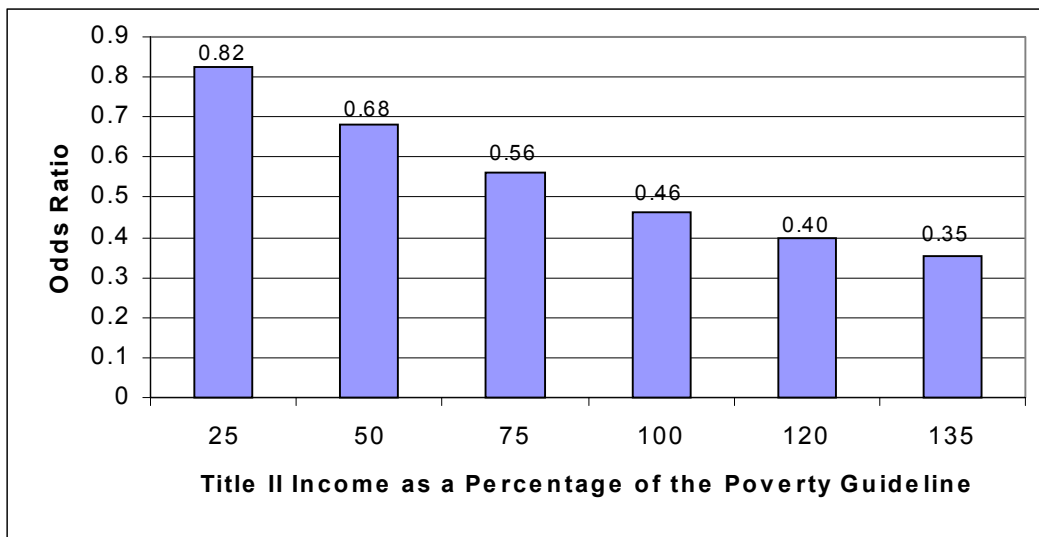** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of matched Master Beneficiary
Record, Group Health Plan, screener, and Third Party Billing
Record data for individuals with Title II income less than 135
percent of the poverty guidelines and Medicare Part A.

Exhibit C.1 in *Appendix C* presents the probability of enrolling among those mailed letters by site.

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CHAPTER 4: DISCRETE TIME HAZARD ANALYSIS

I. Introduction

In this chapter, we investigate the length of time between various steps in the process – from letter mailing to screening, and from letter mailing to enrollment. We account for differences in the characteristics of individuals to provide information about the effects of these variables on the time between one step in the process and the next. This information can be used to inform SSA about staffing needs and appropriate timing and volume of mailings if the models are replicated in other sites.

Hazard models, such as proportional hazard models or discrete-time hazard models, are commonly used to investigate the relationships between the characteristics of a population being studied and the length of time before the occurrence of an event. These models are most commonly used in medical studies to investigate effects of a particular treatment on time to death. The process of estimating these models is also commonly called survival analysis or duration analysis. We use the term "hazard analysis" throughout this report.

Hazard analysis is applied in the analysis of time between steps of the SSA Buy-in program for the following reasons:

- Hazard analysis is appropriate when data correspond to the time from a well-defined time point (such as time of screening) until the occurrence of some particular event (such as enrollment).

- Hazard analysis is well suited for data that are skewed or not normally distributed; data that measure time to some event are often skewed and non-normal.

- Measurements of time to the event of interest (such as screening time) might be censored (e.g., the event of interest might not have been observed for an individual who dropped out after the initial letter mailing because we can no longer observe his or her data). Hazard analysis takes such censoring into account.

Through the use of hazard modeling in the analysis of process time data, we can investigate how time-to-the event varies by relevant individual-level explanatory variables (such as age, income level, race, marital status, and sex), taking censoring into account. Therefore, if certain individual characteristics are associated with a quicker response, potential replication or expansion efforts can benefit from this information, particularly if a site has a high concentration of individuals who are likely to respond more quickly or more slowly. Staffing, or more likely the volume of mailings, could be adjusted accordingly.

In the analysis of the SSA Buy-in program, we apply a discrete-time hazard model rather than a proportional hazard model. Cox's proportional hazards model assumes that time between events is continuous. In order to apply that model to our data, then, there should be relatively few observations in the data with the same value for length of time to an event. However, since multiple people were screened or enrolled on the same day, there are in fact a large number of tied values for length of time in the data. We applied Cox's discrete-time hazard model since this method assumes that events can occur at the same discrete time.

II.   The Discrete-Time Hazard Model

Cox's model for discrete-time data can be described as follows. The time variable t takes only integer values. Let P_{it} be the probability that individual i experiences the event at time t, given that the event has not already occurred for that individual. Let X_{i1}, X_{i2}, ... and X_{ik} represent k explanatory variables for individual i. In the model, the log-odds of P_{it} is related to explanatory variables by the equation:

$$\log\left(\frac{P_{it}}{1-P_{it}}\right) = \alpha_t + \beta_1 X_{i1} + \dots + \beta_k X_{ik}$$

Here, α_t is a constant that can vary from one time point to the next, whereas the coefficients of the explanatory variables are constant over time. To estimate the model we treat the α_ts as nuisance parameters and estimate only the βs – the coefficients of the explanatory variables. In this model, the odds that individual i moves to the next step of the process at time t, given that individual i has not already moved to that step, is equal to $P_{it}/(1-P_{it})$. The coefficients may be interpreted as follows: the effect of a unit change in X_1 is to increase the log odds of the occurrence of the event by an amount β_1, controlling for the other explanatory variables in the model. Or we may also say that the effect of a unit change in X_1 is to increase the odds of the occurrence of an event multiplicatively by the factor $\exp(\beta_1)$, commonly called the risk ratio, controlling for the other explanatory variables in the model. For example, assume that there are two explanatory variables in the model and that X_1 represents gender with $X_1=1$ indicating that the individual is female and $X_1=0$ indicating that the individual is male. If X_2 represents the individual's age, then we may say that relative to males, the odds that a female who has not moved to the next step in the process before time t will move to the next step at t are $\exp(\beta_1)$ times higher than for a male at the same age. Also, $100 \times (\exp(\beta_1) - 1)$ gives the percent change in the odds that the next step in the process will occur for a one-unit increase in X_1.

P_{it} represents the probability that individual i will experience the outcome at time t. In the following sections, we present results from discrete-time hazard models for the following outcome variables: time from letter mailing to screening for the three SSA Buy-in models (screening, application, and co-location models) and 11 sites; and time from screening-to-enrollment for the three models and 11 sites. Each outcome variable is measured as the number of days between the two events. The data capture whether or not individual i has experienced the outcome and the time leading up to the outcome.

For both of the above outcome variables, we present and discuss the estimated model. For specific individual-level characteristics, we also present estimated probabilities obtained from the model for the occurrence of the next step at various intervals of time from the previous step. For the analysis of screening to enrollment, we limit our analyses to those individuals who were screened and declared potentially eligible for the program.

Explanatory variables included in the discrete-time hazard models are the same for the screening model and the enrollment model. These variables include the individual's age in years (Age), an indicator variable for whether the individual was disabled (Disabled), an interaction variable between disabled and age (Disabled x Age), an indicator variable for whether the individual was female (Female), an indicator for whether the individual had a Spanish language preference

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(Spanish Preference), the individual's (if single) or couple's (if couple) Title II income as a percentage of the poverty guideline (Title II), an indicator for whether the individual was enrolled in a Medicare+Choice managed care plan (Medicare+Choice), an indicator for whether the individual was married (Married), an indicator for whether the individual was a widow(er) (Widow(er)), and an indicator for whether the individual was not white (Non-white).

Exhibit 4.1 and *4.2* present the coefficient estimates and odds ratios of being screened (among letter recipients) and enrolling (among potentially eligible beneficiaries) by model.

Exhibit 4.1
Decision Making Model: Hazard Analysis Coefficients and Odds Ratios

Variable	Letter to Screening		Screening to Enrolling	
	Coefficient	Odds Ratio	Coefficient	Odds Ratio
Title II	0.0003	1.000	0.001*	1.000*
Age	-0.011***	0.989***	-0.016***	0.984***
Disabled	0.182*	1.200*	-0.353	0.703
Disabled x Age	-0.002	1.000	0.005*	1.005*
Spanish Preference	0.438***	1.550***	-0.113*	.893*
Married	0.092***	1.097***	-0.078	0.925
Female	0.135***	1.144***	-0.094	0.951
Widow(er)	0.105***	1.111***	0.063*	1.065*
Non-White	0.536***	1.581***	-0.091***	0.913***
Medicare+Choice	0.622***	1.709***	0.076***	1.079***
Dallas	0.425***	1.863***	0.377***	1.457***
San Antonio	0.424***	1.529***	0.709***	2.031***
Philadelphia	0.343***	1.409***	-0.046	0.955

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent

Source: The Lewin Group analysis of matched Master Beneficiary Record, screener, and Third Party Billing Record data for letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

Exhibit 4.2
Peer Assistance Model: Hazard Analysis Coefficients and Odds Ratios

Variable	Letter to Enrolling	
	Coefficient	Odds Ratio
Title II	-0.011***	0.989***
Age	-0.013***	0.986***
Disabled	1.821***	6.180*
Disabled x Age	-0.017***	0.983
Spanish Preference	0.771***	2.163***
Married	0.107***	1.113***
Female	-0.054***	0.948***
Widow(er)	0.321***	1.379***
Non-White	0.349***	1.418***
Medicare+Choice	-0.308***	0.735***
Omaha	-0.714***	0.490***
Pittsburgh	-0.628****	0.534***
Asheville	-0.467***	0.626***
St. Louise	-1.012***	0.332***

Statistical significance levels are indicated as *** = 1 percent;
** = 5 percent; * = 10 percent

Source: The Lewin Group analysis of matched Master Beneficiary Record,
screener, and Third Party Billing Record data for letter-targeted individuals
with Title II income less than 135 percent of the poverty guidelines.

The statistical significance of parameter estimates (starred) indicates the reliability of the variable in predicting the time of screening and enrollment. While the Female, Married, Disabled, and Philadelphia site variables are not significant determinants of time to enrollment after being screened, they are statistically significant in the letter to screening equation (***Exhibit 4.1).***

For the interpretation of the hazard ratio, we used San Francisco as a reference site to which the other sites are compared. Any site could have been used as the reference without altering the estimates of the non-site variables.

III. Decision Making Model: Letter Mailing to Screening

A. By Site

We calculated the predicted probability of having reached screening by day during the first week since letter mailing, and by weeks thereafter for each site. In those instances when a beneficiary was screened before having been mailed a letter, so that the length of time between letter receipt to screening was negative, we set the length of time equal to one.[39] ***Exhibit 4.3*** shows the

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[39] 1,122 (0.5 percent) out of 216,288 letter recipients were screened before they were mailed a letter. These individuals may have heard about the demonstration through word of mouth, posters, or other outreach.

increase in probability of being screened over time by site. The upper panel shows the probability of being screened during the first seven days after letter mailing, when the majority of screens were conducted, and the lower panel shows the probability of screening in weeks. Each predicted probability is computed from the estimated model at the means of the explanatory variables. The predicted probability of being screened is low for all sites. San Antonio and Dallas have the highest probability of being screened relative to the other sites. The probabilities of being screened at these two sites are indistinguishable. Given that these two sites have large Hispanic populations relative to the other two sites, this indicates that to a large extent, the Hispanic population may have driven the high screening rates in San Antonio and Dallas. The lowest screening rates were recorded in San Francisco.

Exhibit 4.3
Probability of Being Screened by Days during the
First Week and from Week of Letter Mailing by Model
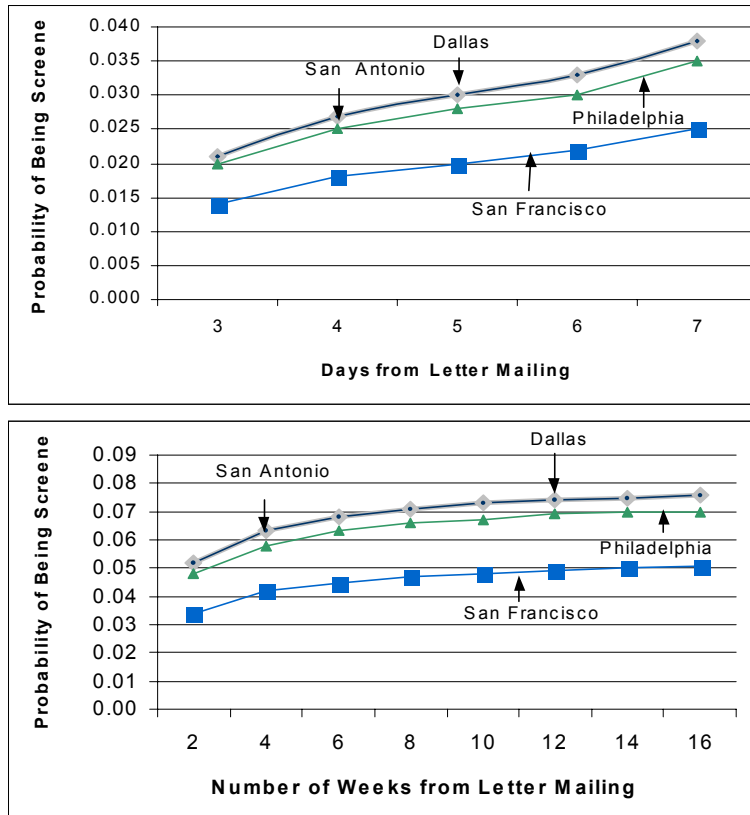
Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and screener data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

IV.   Decision Making Model: Screening to Enrollment

We also estimated the predicted probability of reaching enrollment from the discrete hazard model (see ***Exhibit 4.4***). An examination of predicted probability of enrollment from the time of screening shows a consistent increase in enrollment across time for all sites. The probability of enrollment is higher in San Antonio than in any other site in all time periods. Notice that the

probability of enrollment in Philadelphia and San Francisco slowed down after the eighth week. One salient feature of the nearly consistently high enrollment in San Antonio is the relatively large Hispanic population. The plot also suggests that, after controlling for demographic characteristics and sites, the predicted probability profile of San Francisco is indistinguishable from that of Philadelphia. For all the sites, the hazard probability rises continuously. While the hazard never exceeds 45 percent for Philadelphia and San Francisco, it reaches 70 percent for San Antonio.

Exhibit 4.4
Decision Making Model: Probability of Enrollment by Days
during the First Week and from Week of Letter Mailing by Model

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan and screener data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

V. Peer Assistance Model: Letter to Enrollment

For the peer assistance model, the predicted probability for the Los Angeles site surged over the entire period (see ***Exhibit 4.5***). The rapid increases in the probability of enrollment in that site are noteworthy. The difference in enrollment rates between St. Louis and Los Angeles ranged from 0.9 percentage points to 2.6 percentage points; between Asheville and Los Angeles the gap increased from 0.5 percentage points to 1.5 percentage points. The Hispanic population in Los Angeles may account for the difference in speed of enrollment between Los Angeles and the other sites.

 The main conclusion of the huge disparity of the probability profiles of Los Angeles and the other four sites for the peer assistance model and between San Antonio and the other three sites in the decision making model provide some insight on enrollment. Targeting the Hispanic population appears to result in increased enrollment.

Exhibit 4.5
**Peer Assistance Model: Probability of Enrollment by Days During the First Week
and from Week of Letter Mailing by Model**

Source: The Lewin Group analysis of matched Master
Beneficiary Record, Group Health Plan and screener
data for SSA letter-targeted individuals with Title II
income less than 135 percent of the poverty guidelines.

A. Decision Making Model: By Selected Characteristics

Exhibits 4.6, **4.7**, and **4.8** present the probabilities over time by Spanish language preference, age and disability status, and Medicare+Choice enrollment (i.e., enrollment in an HMO). **Exhibit 4.6** shows that Spanish language preference greatly increased the probability of reaching the screening stage more quickly through week 16. As **Exhibit 4.7** illustrates, throughout the demonstration disabled beneficiaries aged 55 years were more likely to reach the screening stage more quickly than retired beneficiaries aged 65 and 75 years. **Exhibit 4.8** shows that Medicare+Choice enrollees were more likely to reach the screening stage more quickly than their non-enrollee counterparts. Medicare+Choice enrollees may be better informed or more responsive to health decisions because these individuals had to make an active choice to join a plan other than traditional Medicare.

Exhibit 4.6
Probability of Being Screened by Days during the First Week and
from Week of Letter Mailing by Spanish Language Preference
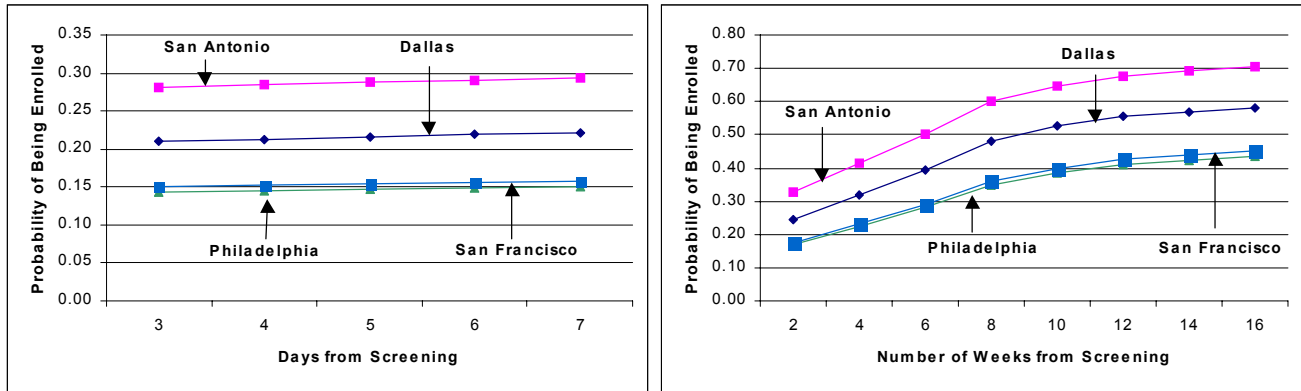

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and screener data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

Exhibit 4.7
Probability of Being Screened by Days during the First Week and
from Week of Letter Mailing among Beneficiaries by Age
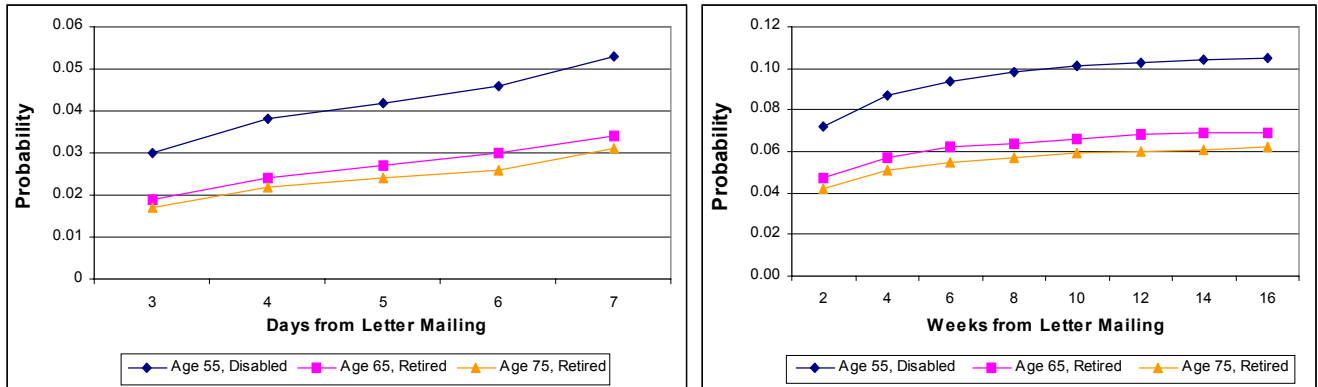
Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and screener data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

Exhibit 4.8
Probability of Being Screened by Days during the First Week and from
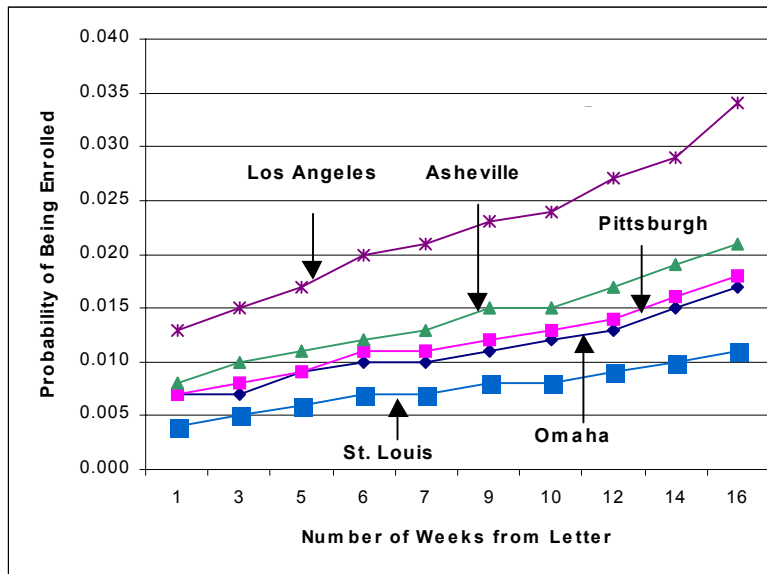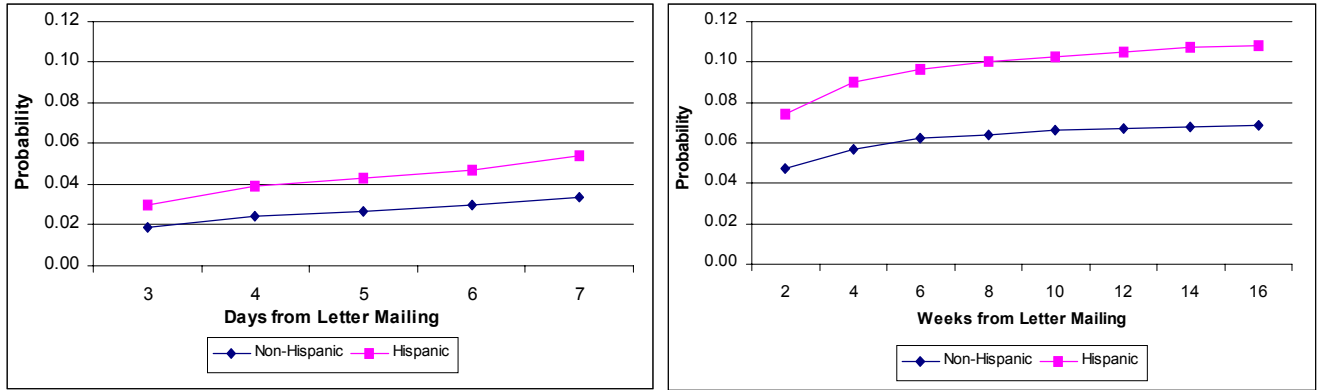**Week of Letter Mailing by Medicare+Choice HMO Enrollment**
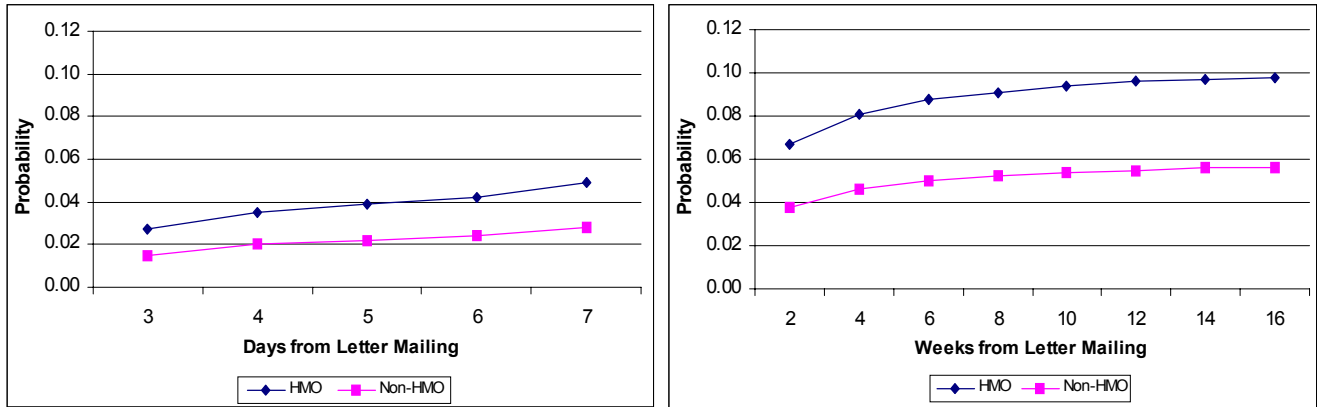
Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and screener
data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty
guidelines.

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CHAPTER 5: IMPACT OF THE PEER ASSISTANCE AND DECISION MAKING DEMONSTRATION MODELS ON BUY-IN ENROLLMENT

In order to assess whether the demonstration had an effect on Buy-in enrollment, we compared enrollment in the demonstration sites to enrollment in comparison areas. In Section I, we describe the data used for the impact analysis. In Section II, we discuss the difference-in-difference (DID) methodology used to assess the impact of the demonstration models. Finally, in Section III, we present and discuss the results.

I.   Impact Analysis File

The main sources of data used were the SSA-provided MBR data for the states of interest, matched to the HCFA-provided Third Party Billing Record data, which indicated Buy-in enrollment, and the HCFA Group Health Plan file, which provided information on Medicare+Choice plan enrollment. The sample for the impact analysis includes all individuals who we estimated should have received a letter from SSA had they lived in the demonstration area with the criteria outlined in previous chapters:

- Single and receiving individual monthly Title II Social Security benefits of less than $947 or married and receiving combined benefits of less than $1,265;

  -AND -

- Entitled to Medicare Part A benefits; *or*

- Attained the age of 64 and 11 months or had received 24 consecutive months of disability insurance benefits.

As discussed in *Chapter 2*, SSA staggered the mailing of the letters in five separate batches for the peer assistance model and 22 batches for the decision making model, based on the terminal digit of the recipient's SSN and the demonstration model. SSA selected all individuals meeting the criteria approximately one week prior to mailing. To construct a comparable sample, we selected individuals based on whether they met the criteria at the point in time when SSA would have pulled the sample. For example, an individual with a terminal digit of 3 and living in San Antonio would have been sent a letter on June 7, 2000. Therefore, to construct the comparison sample in El Paso, we included individuals with terminal digits of 3 who met the criteria as of June 7. Also, as discussed in *Chapter 2*, we excluded married individuals who received a letter in the demonstration area, but most likely should not have received the letter because their Title II income exceeded the couple limits.

In contrast to the previous analyses, where existing enrollment was excluded, we retained individuals already enrolled in the Buy-in program for the impact analysis. We chose to use the broader measure of enrollment because it provided an estimate of the net impact on enrollment rather than the change in new enrollment. Although the change in new enrollment would yield a higher estimate for the impact of the demonstration, the policy debate has been framed in terms of the percent of potential eligibles that do not enroll. Therefore, the results presented provide an indication of the expected change in the percent of potential eligibles enrolled that might occur if the demonstration were instituted elsewhere.

We applied the same criteria in the creation of comparison areas. We used their zip code as of March 2000.

II. Methods

A. Difference-in-Difference (DID) Estimator

For the impact analysis of the peer assistance and decision making models, we used a pre-post analysis with comparison group non-experimental design. We relied on the difference between the change in enrollment from the pre- to post-periods for the demonstration sites and the comparison areas to identify the net impact of the demonstration on Buy-in enrollment. This approach is called a difference-in-difference (DID) analysis. The simple difference-in-difference estimator is represented by the following formula:

$$DID = (Post^{demo} - Pre^{demo}) - (Post^{comp} - Pre^{comp})$$

where $Post^{demo}$ and Pre^{demo} are the post- and pre-enrollment rates in the demonstration area and $Post^{comp}$ and Pre^{comp} are the corresponding rates in the comparison areas. The pre- and post-periods used were:

	Pre	Post
Peer Assistance	Sept. 1998 - May 1999	Sept. 1999 - May 2000
Decision Making	April 1999 – Dec. 1999	April 2000 – Dec. 2000

We controlled for differing levels of pre-enrollment rates in demonstration areas and comparison sites. The DID technique provides simple, consistent, non-parametric estimates of the relationship between demonstration and comparison sites.

Differences in participation rates across sites, and changes over time within site, might partly reflect differences in the characteristics of beneficiaries. Because demographic and economic characteristics (e.g., sex, race, marital status, disability, age, and income) can affect enrollment, failing to control fully for such "background" differences could bias the estimates, even under the DID approach.

We assessed whether the demonstration and comparison population differed in observable demographic and economic characteristics. *Exhibit 5.1* provides an overview of the adjusted DID methodology. The data for the comparison sites were used to run a logistic regression of enrollment on sex, race, marital status, disability, age, age interacted with disability, Title II income as a percent of the poverty guideline, Medicare+Choice enrollment, and widow(er) status. The same population was used in the pre- and post models.

Exhibit 5.1
Overview of Difference-in-Difference Methodology

```
┌─────────────────────────────────────────────┐
│  Estimate models for enrollment on a monthly  │
│   basis for comparison groups, pre- and post- │
│                   periods                     │
│               162 models total                │
│     (9 sites, 9 pre-period and 9 post-period) │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│  Estimate monthly enrollment for comparison   │
│    group models using the demonstration       │
│    population to control for differences in   │
│               characteristics                 │
└─────────────────────────────────────────────┘
        │                              │
        ▼                              ▼
┌────────────────────┐    ┌──────────────────────────┐
│  Demo Difference = │    │  Comparison Area Difference = │
│ Post-demo - Pre-demo│   │   Post-comparison group -     │
│ based on observed   │   │  Pre-comparison group area    │
│     enrollment      │   │  based on estimated enrollment│
│                     │   │ from models using demo population│
└────────────────────┘    └──────────────────────────┘
        │                              │
        └──────────────┬───────────────┘
                       ▼
           ┌───────────────────────────┐
           │  Difference in Difference = │
           │      Demo Difference -      │
           │  Comparison Area Difference │
           └───────────────────────────┘
```

We followed the same population over the entire pre- and post-period that met the letter-targeted criteria and were alive at the time information would have been checked to generate the letters (see *Exhibit 5.2*). This means that individuals who were not eligible for Part A benefits during the pre-period were included in the pre-models; and individuals who died during the post-period were retained. By treating the demonstration and comparison areas the same, we should avoid any bias as a result of these inclusions.

Exhibit 5.2
DID Analysis Population and the Implications for Percent Enrolled Estimates
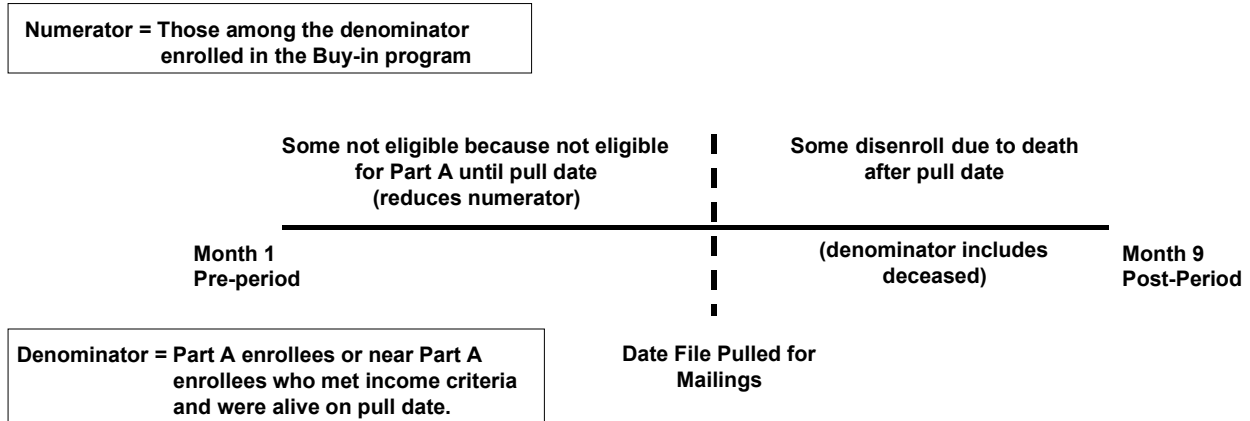
Applying the parameter estimates obtained from these regressions to each demonstration site's population to predict the pre- and post-probability of enrollment in that site resulted in adjusted estimates.[40] These estimates use the relationship between characteristics and enrollment from the comparison group and the characteristics of the population in the demonstration area to estimate enrollment of the comparison group as a proxy for enrollment in the demonstration area absent the demonstration. Enrollment, the dependent variable, is an indicator that takes on the value one if the individual is enrolled and zero otherwise. The predicted enrollment rates are then used to estimate the DID.

B. Comparison Groups

In one of our previous reports, we explored four types of comparison groups (see ***Appendix E*** of ***Results from Three of the Initial Models of the SSA Medicare Part B Buy-in Demonstration***). Based on these analyses, we present the results from an adjusted, select comparison area because they provide the best estimate of the impact of the demonstration by controlling for as many differences in the characteristics of the population between the demonstration sites and the comparison areas.

For the selected comparison areas, selection was based on the percent of the elderly with income less than the poverty level and minority representation. For demonstration sites that aligned closely within county boundaries (St. Louis, Asheville, Dallas, and San Antonio), we selected a comparison county; for those that aligned within city boundaries (Los Angeles, San Francisco, Omaha, Philadelphia, and Pittsburgh), we selected a comparison city. For Pittsburgh and Los Angeles, we combined several small cities in the region to increase the size of the population over age 65 because no single city had both the poverty/racial mix and a sufficient number of individuals age 65 and over (at least 5,000). ***Exhibit 5.3*** shows the selected comparison areas

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[40] That is, we control for the differences in demographic and economic factors for individuals in the demonstration sites that may affect Buy-in enrollment.

based on geography. ***Exhibit 5.4*** presents additional information about the selected comparison areas.

Exhibit 5.3
Selected Comparison Areas for Each Demonstration Site Based on Geography

Demonstration Sites	Corresponding Comparison Sites
California	
Los Angeles (area within east Los Angeles city)	Lynwood, South Gate, Azusa, Inglewood, Huntington Park (cities in LA county)
San Francisco city	Sacramento city
Missouri	
St. Louis (parts of Franklin, Jefferson, St. Charles, St. Louis counties, excluding St. Louis city)	Boone County
Nebraska	
Omaha (primarily within city)	Lincoln city
North Carolina	
Asheville (Buncombe, Haywood, Henderson, Jackson, Macon, Madison, and Transylvania counties)	Randolph County
Pennsylvania	
Philadelphia city	Harrisburg city
Pittsburgh (primarily city, with some suburbs)	Aliquippa, Farrell, Clairton, and Duquesne (cities near Pittsburgh)
Texas	
Dallas county	Tarrant County (Fort Worth)
San Antonio (south Bexar County)	El Paso County

Exhibit 5.4
Economic and Demographic Characteristics, Population Age 65+ (Percent)

| Area | Age 65+ | In Poverty | Race/Ethnicity | | | Female | With Self-Care Limitations | With No Telephone | With No Vehicle |
			Black	Hispanic	Other Non-White				
California									
Los Angeles*	164,130	13.6	17.8	31.3	12.7	61.4	26.4	2.7	35.0
Lynwood, South Gate, Azusa, Inglewood, Huntington Park	22,866	14.1	17.3	30.3	14.8	62.1	25.2	2.6	27.8
San Francisco*	105,263	9.9	9.6	8.0	2.5	60.2	22.9	2.4	47.1
Sacramento	44,135	8.8	8.5	6.6	2.4	59.8	22.0	1.6	26.5
Missouri									
St. Louis*	70,162	7.8	6.0	0.4	0.1	60.8	19.0	1.0	19.2
Boone County	9,392	9.2	5.2	0.4	0.0	59.9	17.3	1.5	18.2
Nebraska									
Omaha*	31,167	10.6	7.9	1.3	0.4	62.4	18.2	1.4	27.1
Lincoln	21,109	9.0	1.3	0.2	0.1	62.3	16.0	1.1	22.5
North Carolina									
Asheville*	68,497	16.1	3.6	0.2	0.1	59.0	20.6	2.9	19.8
Randolph County	12,803	16.4	5.3	0.0	0.0	60.3	20.6	2.7	16.9
Pennsylvania									
Philadelphia*	241,206	16.3	29.3	1.4	0.7	63.3	26.7	1.9	50.0
Harrisburg	6,816	18.7	31.1	1.8	0.9	64.8	21.5	4.2	50.5
Pittsburgh*	66,278	14.4	18.2	0.3	0.1	63.4	25.3	1.7	48.4
Aliquippa, Farrell, Clairton, and Duquesne	8,660	13.9	16.8	0.1	0.1	60.6	23.9	2.1	36.8
Texas									
Dallas*	151,510	12.8	13.2	4.8	2.4	61.9	21.0	2.1	17.8
Tarrant County	97,139	11.7	9.4	3.4	1.6	61.3	20.1	1.9	14.7
San Antonio*	18,651	22.3	1.7	49.9	13.9	59.4	25.9	4.7	20.6
El Paso County	48,033	21.3	1.7	53.3	9.5	58.6	22.3	5.2	24.6

Source: The Lewin Group tabulations of the 1990 Decennial Census.
Note: * Indicates demonstration site.

III. Adjusted Difference-in-Difference Estimates Analysis by Site

The graphs by site indicate that after the third month from the initial mailings, all the demonstration sites, with the exception of Asheville, had consistently higher changes in enrollment than the comparison areas (see ***Exhibit 5.5***). The enrollment rates indicate that there was little difference between the changes in enrollment in the demonstration and comparison sites in the early part of the period. Consistent with both the staggered timing of the mailings and the time necessary to process applications, lower DIDs in several demonstration sites in the first several months suggests that the model did not have much impact until later in those areas.

Exhibit 5.5
Percentage Point Difference-in-Difference by Model and Site
Peer Assistance
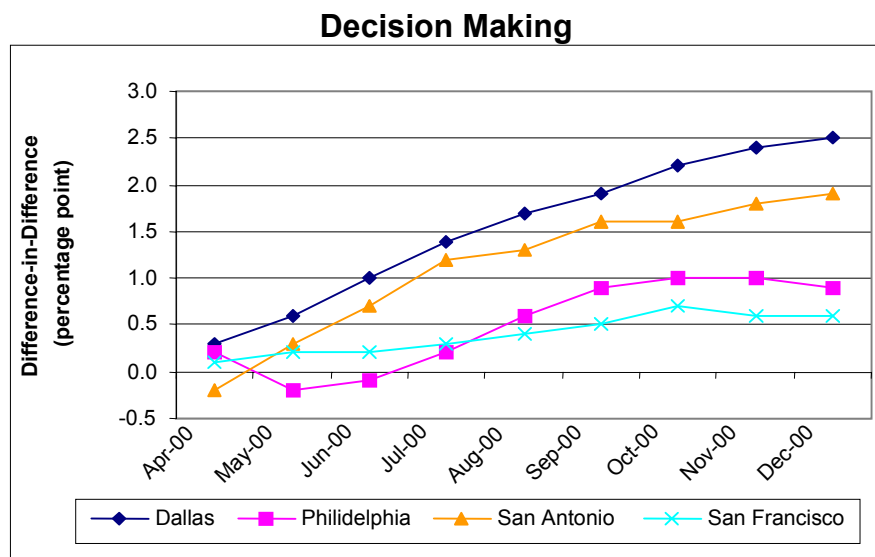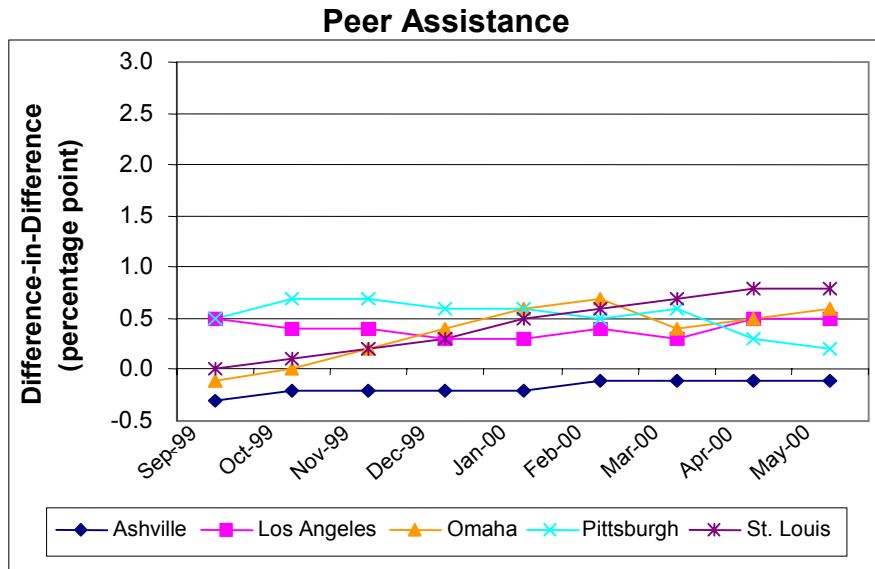
Decision Making

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and Third Party Billing data for individuals with Title II income less than 135% of the poverty guideline and Medicare Part A.

Among the demonstration sites considered here, Dallas, a decision making model site, had the greatest increase in enrollment with a 2.5 percentage point difference, followed by San Antonio, also a decision making site, with a 1.9 percentage point difference. Dallas and San Antonio were also the only sites that had both a shortened application form and minimal to no verification of income and assets. Philadelphia, also a decision making model site, had the third highest change in enrollment relative to the selected adjusted comparison area with a 1.0 percentage point increase.

San Francisco, the final decision making site, and most of the peer assistance sites (Los Angeles, Omaha, Pittsburgh, and St Louis) had maximum difference-in-difference percentage point increases between 0.5 and 0.8. Compared to sites for the other models, with the exception of Carlisle and Oklahoma City, which had results similar to those reported here, these impacts were generally lower.

In Asheville, based on our analysis, it appears that the peer assistance effort had no effect on enrollment relative to the comparison area. The Asheville project experienced some initial start up problems related to obtaining a facility and telephone hook-up, which may have affected their ultimate enrollment. In addition, as of January 1, 1999, North Carolina raised its full Medicaid eligibility from the Federal SSI income level to 100 percent of the poverty guideline. Outreach efforts related to the expanded eligibility occurred across the state and may have overwhelmed the demonstration specific efforts in the Asheville area. Also, our discussions with AARP coordinators for the demonstration site indicated that the Asheville area was particularly conservative and somewhat distrustful of government programs. It may be that individuals in the comparison area for Asheville, might have been more willing to take advantage of the newly available expanded eligibility, resulting in the lack of an effect from the demonstration's efforts.

Most of the sites had an increasing impact over the course of the demonstration period because the measure of the percent enrolled had a cumulative effect. This was the result of individuals becoming enrolled, and not likely disenrolling until their annual recertification, unless they died. This results in the percent enrolled continuing to increase relative to the pre-period compared to the comparison area, if the demonstration had an effect. The increasing percentage difference over time resulted primarily from the general decline in the DID for the comparison areas, rather than a dramatic increase in enrollment in the latter part of the period in the demonstration areas. This happened because the percent enrolled in the comparison areas steadily declined after the start of the mailings due to deaths. The analysis sample included letter eligible individuals based on information when a letter file would have been generated for them. This meant that these individuals must have been alive at the time the letter files were generated (generally a week before the mailing). As discussed in Section II, for the analysis file, we maintained the same denominator over the entire time period. This resulted in an increasing percentage of Buy-in enrolled among the analysis sample in both the demonstration and comparison areas as time passed and more individuals became enrolled than disenrolled for reasons other than death. Once the letter file generation date had passed, Buy-in enrolled individuals in the analysis sample disenrolled due to death. The deaths of existing enrolled Buy-ins in the comparison area tended to offset the newly enrolled, resulting in a relatively constant enrollment rate during the post-period. In the demonstration areas, the increased enrollment as a result of the demonstration continued to increase the percent enrolled. Therefore, during the post-period, the slope in

difference between the change in the demonstration area over time was steeper than for the comparison area, which resulted in the largest percentage differences in the later months.

An exception to this observed trend was Pittsburgh, which had a larger difference in the earlier part of the demonstration period that trailed off towards the end. This is likely due to the outreach efforts of the Jewish Health Care Foundation and the Allegheny County Area Agency on Aging that were conducted between June and September 1999 and resulted in a reported 500 enrollments toward the end of the pre-period for our analysis. The increase as a result of the prior outreach efforts dampens the DID relative to the comparison area in the waning months of the demonstration because the corresponding pre-period became inflated.

Exhibit 5.6 presents the percent changes and percentage point difference for the DID by site. The percentage difference in the DID over the period tends to increase steadily, peaking in December for most sites (see the right hand axis of the charts in *Exhibit 5.6*).

Exhibit 5.6
Pre-Post Percentage Point Difference and Percent
Difference in the Change by Site

Peer Assistance Model
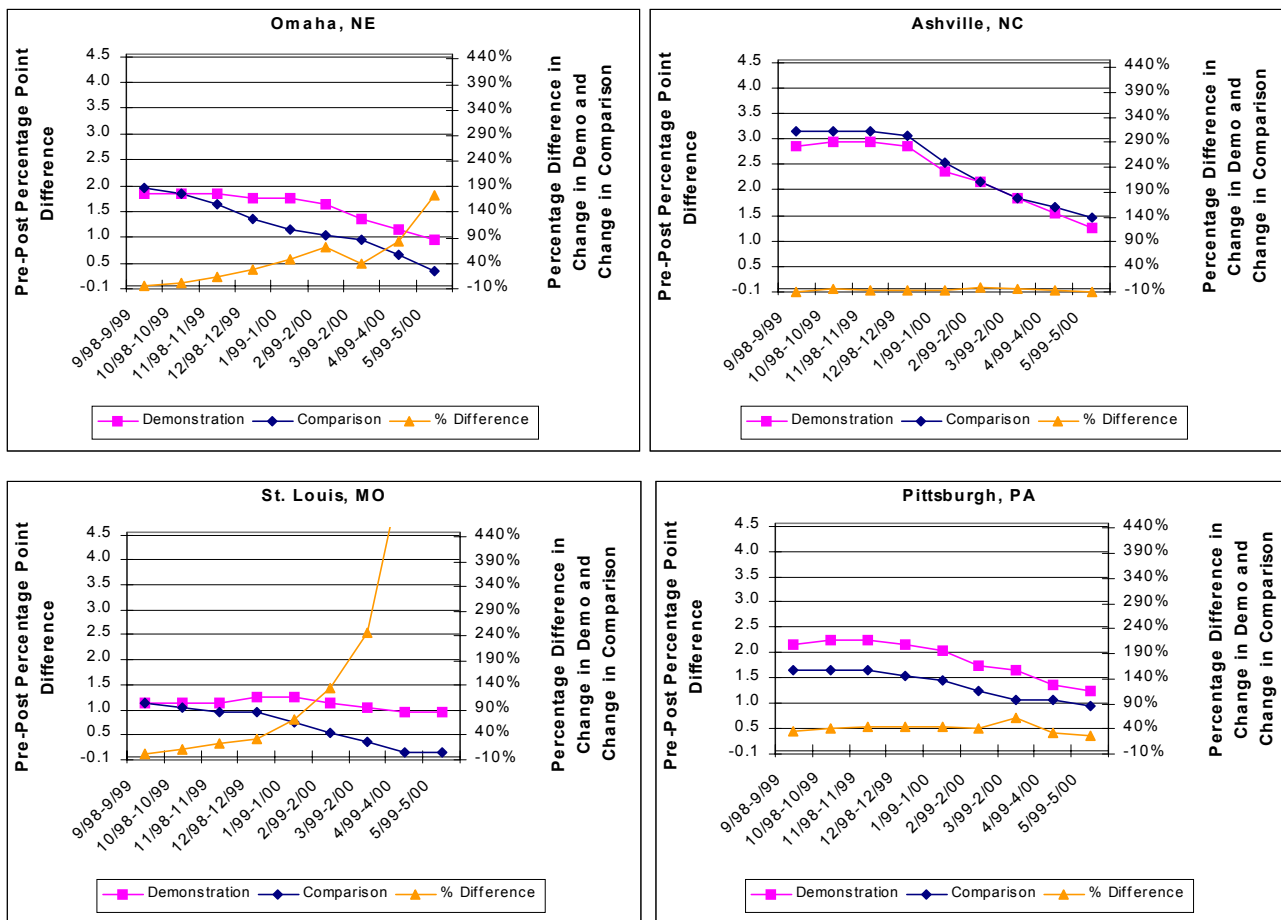
Exhibit 5.6 (cont.)
Pre-Post Percentage Point Difference and Percent
Difference in the Change by Site
Peer Assistance Model
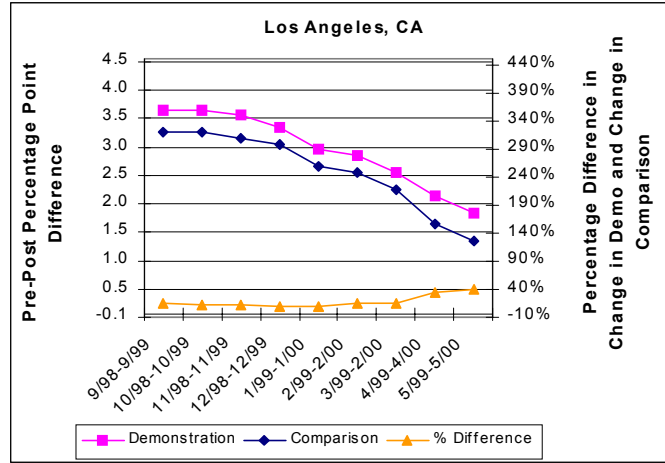
Decision Making Model
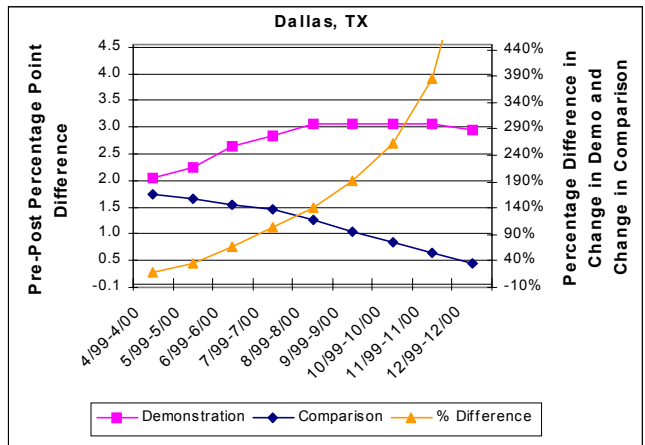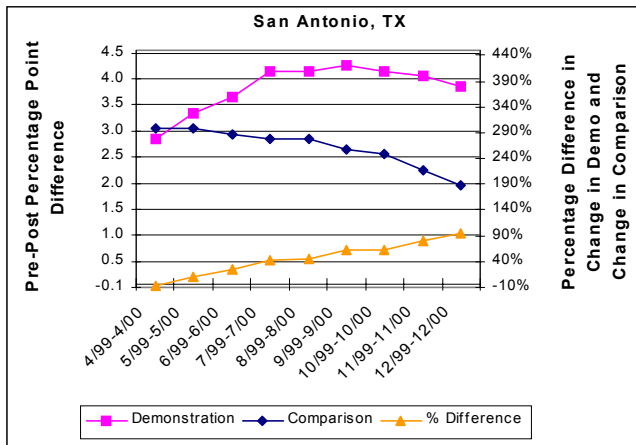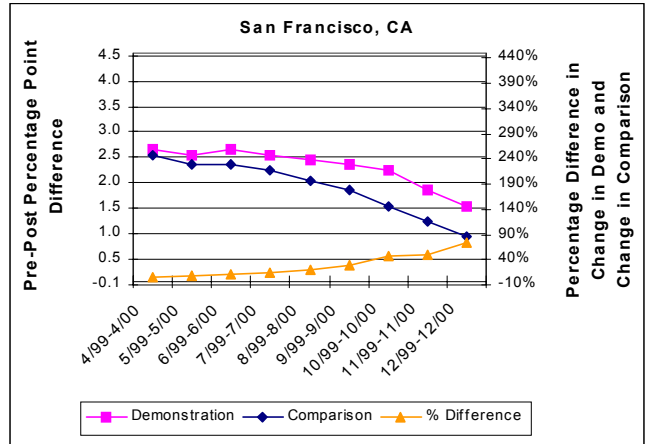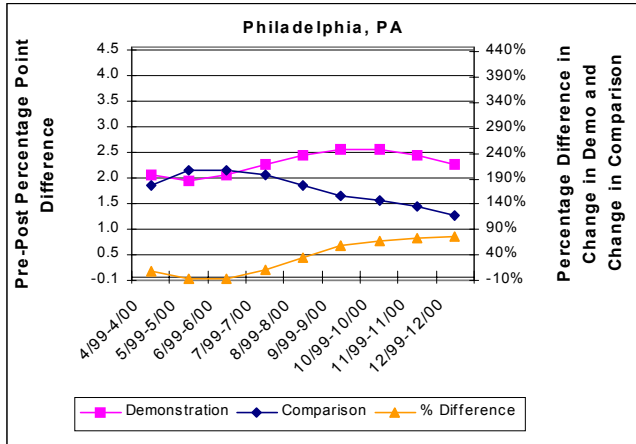
Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and Third Party Billing data for individuals with Title II income less than 135% of the poverty guideline and Medicare Part A.

IV.   Special Analyses for San Francisco

As discussed in ***Chapter 2***, some beneficiaries in San Francisco were inadvertently sent two letters, while others who should have been sent a letter received no letter, due to an error in the algorithm. The number of letters sent was based on the last digits of the beneficiaries' social security numbers, creating three groups of individuals who, for all practical purposes, were randomly assigned to the groups.[41] ***Exhibit 5.7*** compares the three groups; for almost all characteristics, the differences between the groups were not statistically significant. The two-letter group had a slightly higher share of beneficiaries expressing an interest in receiving SSA information in Spanish and were slightly less likely to be nonwhite. But overall, the groups were quite similar.

Exhibit 5.7
Characteristics of Beneficiaries in San Francisco
By Number of Letters Sent

Characteristic	Number of Letters Sent to Beneficiary		
	0	**1**	**2**
Under Age 65	8.2	8.0	9.2
Female	60.5	60.6	59.9
Spanish Letter Preference	1.9	2.3	2.8 ***
Nonwhite	46.3	45.8	44.3 *
Title II Below Poverty Guideline	51.2	50.2	50.6
Married	10.8	10.0	10.3
Medicare + Choice	95.2	95.0	95.2
Widow(er)	20.2	20.0	19.7
Sample size	3,600	31,624	3,512

Statistical significance levels are compared to no letters and indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of MBR letter file and supplemental file from SSA.

The difference in the number of letters sent permitted us to examine three issues more explicitly: 1) the effect of sending the letters; 2) the effect of sending more than one letter; and 3) the effect of the publicity efforts.

A.   Effect of the Number of Letters Sent

We measured the impact of being sent one letter and being sent two letters on enrollment in the Buy-in program. Because the process for sending letters involved no selection bias, and the groups are well-matched, we can compare the enrollment rates among the three groups and any

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[41] In early experimental studies of public programs, random assignment to treatment and control groups to measure the impact of the program was based on the last digits of an applicant's Social Security number (Orr, Larry L (1997). *Social Experimentation: Evaluating Public Programs with Experimental Methods*. Washington, DC).

difference can be attributed to the number of letters sent to an individual.[42] ***Exhibits 5.8*** and ***5.9*** present the rates of enrollment by letter group and whether the difference in rates between the one-letter and no-letter groups and between the two-letter and no-letter groups are statistically significant.

Exhibit 5.8
Rate of Enrollment in Buy-in
by Number of Letters Sent to Beneficiaries in San Francisco

	Number of Letters Sent to Beneficiary		
Month	**0**	**1**	**2**
May, 2000	0.78	1.34 ***	1.00
June	0.92	1.73 ***	1.59**
July	1.19	2.18 ***	1.96 ***
August	1.64	2.62 ***	2.73 ***
September	2.11	3.19 ***	3.56 ***
October	2.47	3.56 ***	4.24 ***
November	2.72	3.83 ***	4.50 ***
December	2.86	4.04 ***	4.73 ***
Ever enrolled	2.97	4.24 ***	4.90 ***
Sample size	3,600	31,624	3,512

Statistical significance levels are compared to no letters and indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of the MBR letter file and a supplemental file identifying those not sent letter from SSA and Third Party Billing data from CMS.

The error in letters sent occurred in August. Depending on the last digit of the social security number, some individuals in the two-letter group received a second letter in August, while others received their first letter in August and a second letter later. As ***Exhibit 5.9*** shows, both the one-letter and two-letter groups enrolled at higher rates than the one-letter group throughout the follow-up period. However, starting in August, the two-letter group enrolled at higher rates than the one-letter group, presumably because some individuals began to receive a second letter. Over the May to December period, receiving one letter increased enrollment by 43 percent and receiving two letters increased enrollment by 63 percent, relative to not receiving a letter. The difference in the number who ever enrolled between May and December is statistically significant at the 10 percent level. These results provide further evidence of the particular effectiveness of sending a letter. It also indicates that a second letter can increase enrollment rates even more.

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[42] Some individuals received only one letter prior to August 2000, and would have received a second letter had they not enrolled in the Buy-in program as of August 2000. Others would have received a second letter, but may have left the San Francisco area. We included these beneficiaries in the two-letter group to eliminate selection bias.

Exhibit 5.9
Rate of Monthly Enrollment in Buy-in
by Number of Letters Sent to Beneficiaries in San Francisco
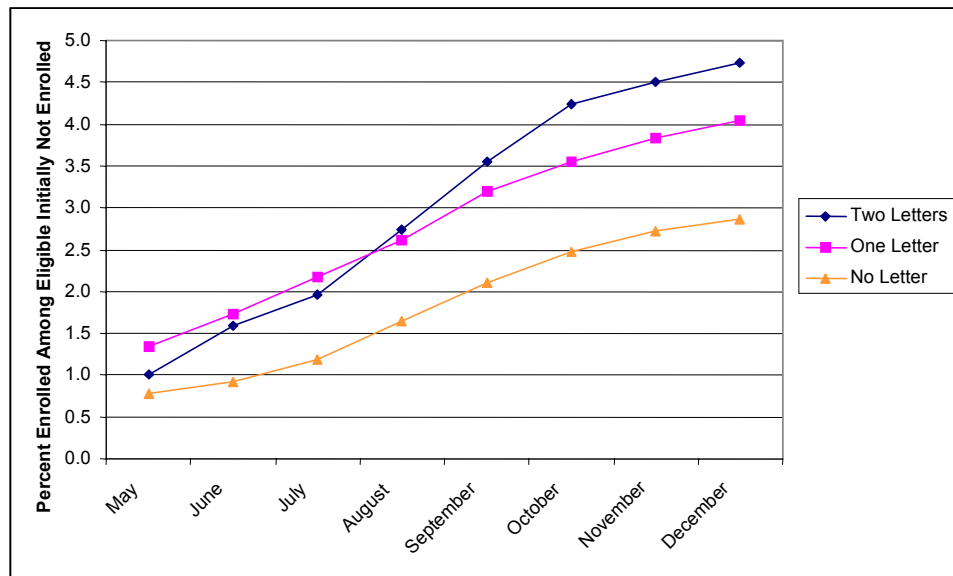
Source: The Lewin Group analysis of the MBR letter file and a supplemental file identifying those not sent letters from SSA and Third Party Billing data from CMS.

B. Effect of Publicity Efforts in San Francisco

The group of individuals who were potentially eligible, but who inadvertently were not sent a letter in San Francisco, provide an opportunity to measure the impact of the special publicity in this site. These publicity efforts were summarized in ***Chapter 2, Section I.C*** and detailed in ***Appendix A***. We took two approaches: 1) the difference–in-difference approach, which measures the change in overall enrollment over time in the demonstration area (San Francisco) versus the comparison area (Sacramento); and 2) the percent enrolled among those initially not enrolled.

Higher enrollment among those potentially eligible in San Francisco who were not sent a letter could be indicative of the effectiveness of the special publicity efforts in San Francisco. ***Exhibit 5.10*** presents the results of the DID analyses (underlying data are presented in ***Appendix D, Exhibit D.4***). ***Exhibit 5.11*** presents the percent enrolled among those initially not enrolled in Buy-in. The San Francisco no letter group includes those who should have been sent a letter, but due to the social security number error, were not sent a letter. The comparison area no letter group is based on a model of enrollment for the comparison area population that initially was not enrolled in Buy-in. Calculating the predicted enrollment for the comparison area provides an estimate of the effect without the intervention (publicity or letters) and using the San Francisco no letter population adjusts the results for any differences in the underlying population between the demonstration and comparison areas.

Exhibit 5.10
Impact Among Those Not Sent Letters in San Francisco

Source: The Lewin Group analysis of matched Master Beneficiary Record and s
supplemental file identifying those not sent letters from SSA, Group
Health Plan, and Third Party Billing data for individuals with Title II
income less than 135% of the poverty guideline and Medicare Part A.

In both analyses, enrollment significantly increased for the San Francisco no letter group relative to the comparison area. In the DID analysis, those who were not sent a letter had a significant increase in enrollment during the demonstration period. In the percent enrolled among those not initially enrolled, nearly three percent of the San Francisco no letter group enrolled by December, while only slightly more than one percent of the comparison group enrolled.

In both analyses, the increase in enrollment for the San Francisco no letter group relative to the comparison area occurred even prior to the start of the publicity campaign in late July. The lack of a definitive increase in enrollment among those who were not sent a letter following the start of the publicity campaign makes it difficult to definitively associate the higher enrollment with the publicity. Higher enrollment among this group prior to the publicity may be the result of up to three months retroactive enrollment among SLMB and QI-1 beneficiaries. It could also be associated with greater awareness among SSA field office staff resulting in increased application intake for SSI benefits. In addition, those who received letters may have informed others of the benefits of Buy-in.

Exhibit 5.11
Rate of Monthly Enrollment in Buy-in
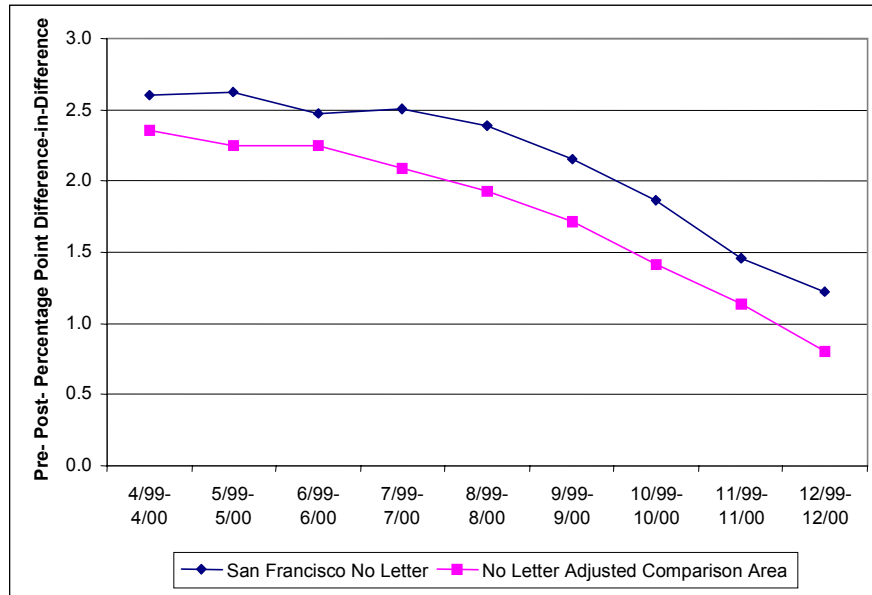**by Number of Letters Sent to Beneficiaries in San Francisco**
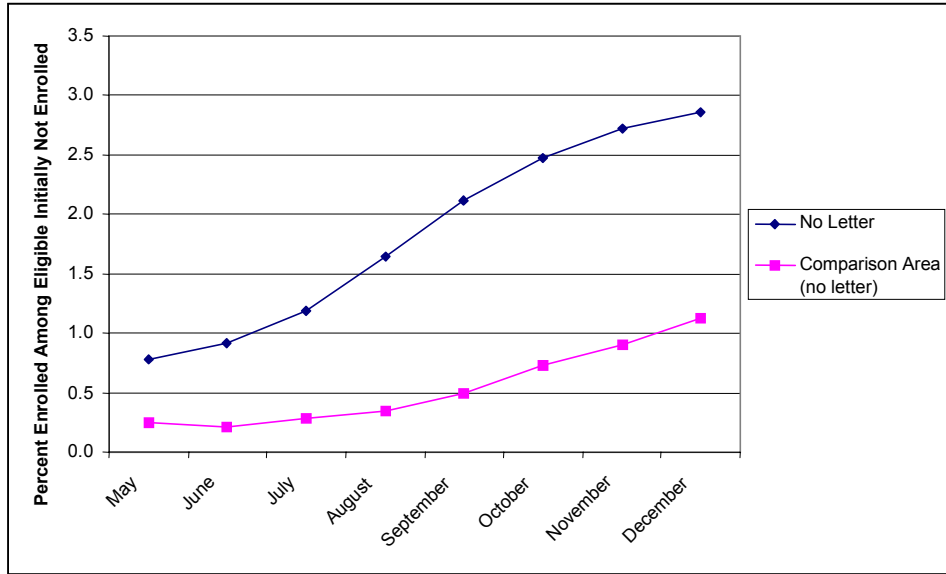
Source: The Lewin Group analysis of the MBR letter file and a supplemental file identifying those not sent letters from SSA and Third Party Billing data from CMS.

C. The Effect of Publicity Relative to Letters

We attempted to determine the relative impact of sending the letters in combination with the publicity campaign versus the publicity campaign alone by comparing the results among those with no letters and those who were sent letters relative to the results in the comparison area. We took the same two approaches as discussed in the previous section: 1) the difference–in-difference approach; and 2) the percent enrolled among those not initially enrolled.

Exhibit 5.12 displays the results of the DID approach for the no letter group versus the letter targeted group. As indicated previously, both San Francisco groups had higher enrollment, but the letter targeted group had a greater increase in enrollment than the no letter group. *Exhibit 5.13* shows the results among those enrolled among those not initially enrolled in Buy-in by the number of letters sent and for the comparison area. Also, as indicated previously, the San Francisco groups had higher enrollment than the comparison area and those sent letters had higher enrollment than those not sent letters. Relative to the comparison area in December, those in San Francisco not sent letters had enrollment approximately 1.5 times higher, while those sent one letter had enrollment 2.6 times higher and those sent two letters had enrollment 3.2 times higher. The combination of publicity and letters clearly has a greater impact than publicity in the absence of a letter. Again, we advise caution in attributing all of the difference between the comparison area and the San Francisco no letter group to the publicity efforts alone because the conduct of the demonstration and the letters sent in San Francisco could have had an indirect effect on this group.

Exhibit 5.12

Impact Among Those Not Sent Letters and Letter Eligibles in San Francisco

Exhibit 5.13
Rate of Monthly Enrollment in Buy-in
by Number of Letters Sent to Beneficiaries in San Francisco

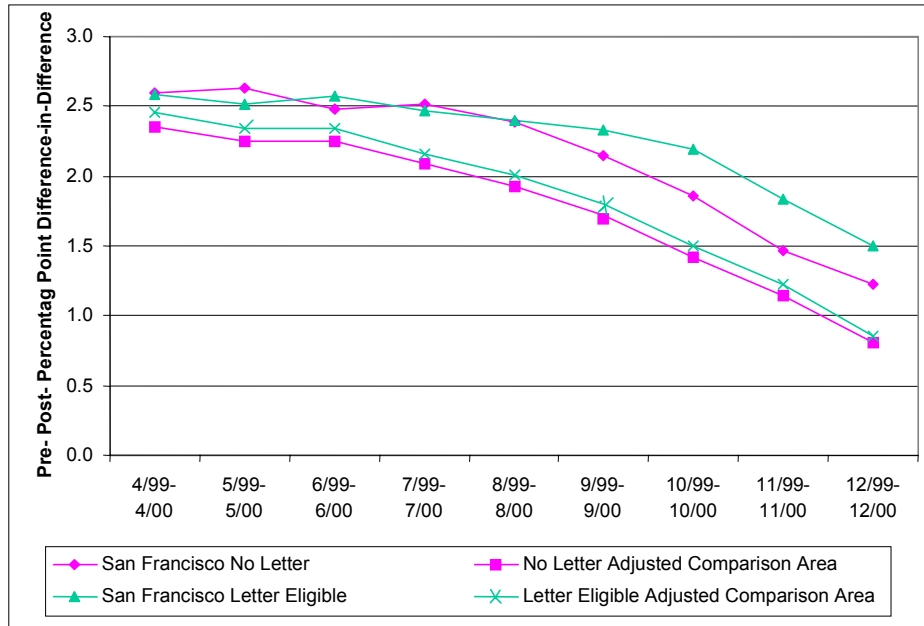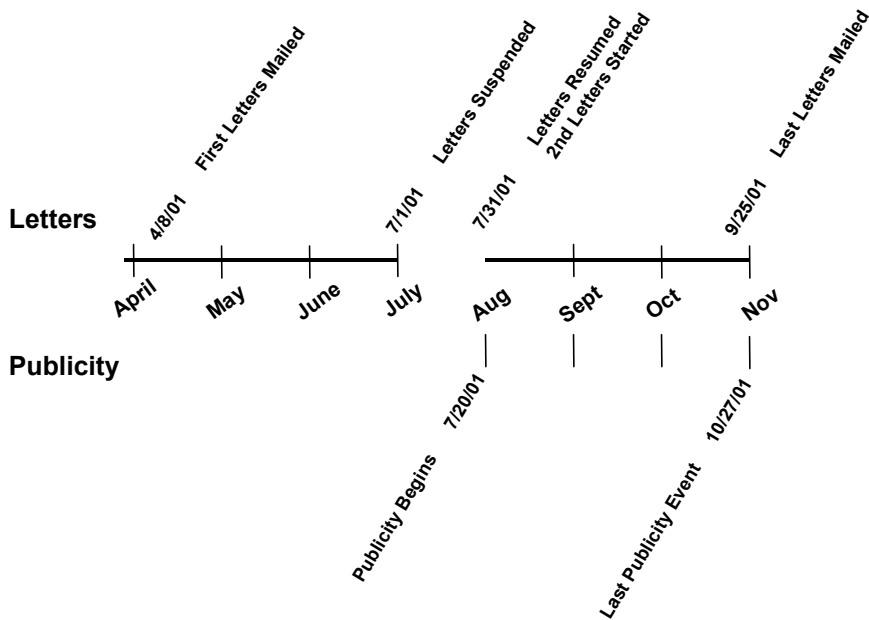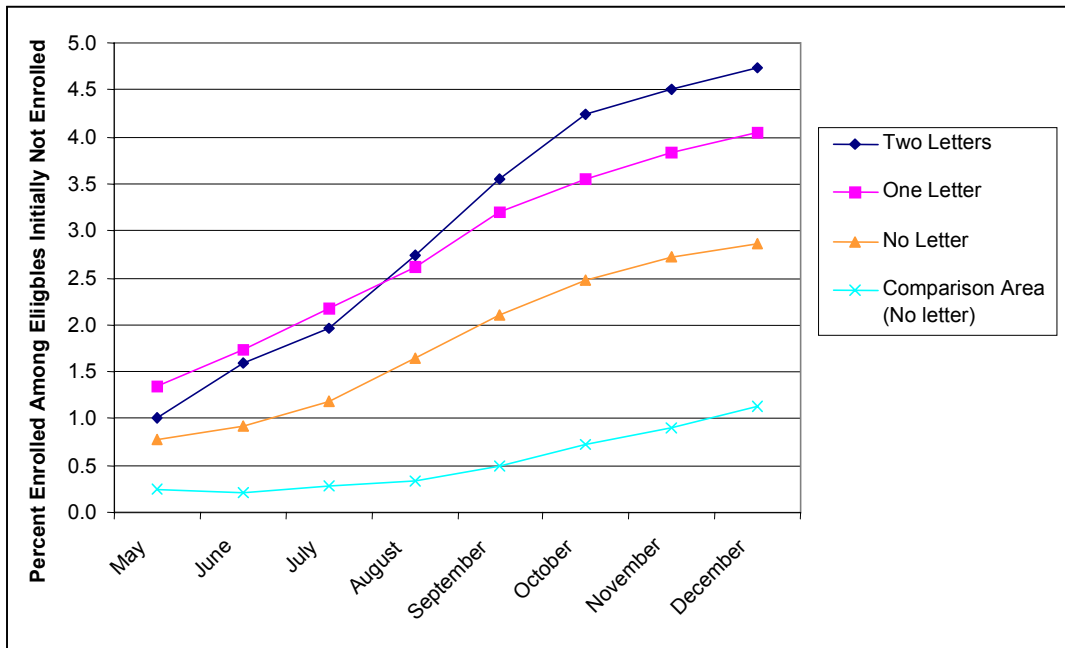**Source:** The Lewin Group analysis of the MBR letter file and a supplemental file identifying those not sent letters from SSA and Third Party Billing data from CMS.

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CHAPTER 6: OUTCOMES FROM THE WIDOW(ER)S MODEL

The widow(er)s model focused on enrolling Medicare beneficiaries whose economic situation may have changed due to the death of a spouse. Widow(er)s rely to a greater extent than couples on their Social Security benefits.[43] Another reason for implementing the widow(er)s model was to ascertain whether SSA could identify a substantial number of potential Buy-in eligibles in the course of conducting routine business, without the extensive outreach efforts of the other models.

The widow(er)s model underwent several modifications over the course of the demonstration, affecting the outreach, the scheduling of appointments, and the application process. This chapter begins by discussing the outreach efforts as they evolved over the course of the demonstration. Next, we provide an overview of the screening process and present outcomes and characteristics of those screened. We then outline the application process and present enrollment rates. We were unable to conduct an impact analysis for the Widow(er)s model because the model was implemented statewide and it was not possible to identify a reasonable comparison group (either from another state or for a non-targeted group within the state).

I.   Outreach Efforts

A. Widow(er)s Contact SSA

Initially, the SSA field office staff identified widow(er)s who called or visited the SSA office to report the death of their spouse (most likely to change their benefit status) and who appeared to be eligible for the Buy-in program. These were widow(er)s who were entitled to Medicare, were not already receiving Buy-in benefits, and had Title II benefits that fell below the income limits for Buy-in eligibility. SSA conducted an eligibility screening and widow(er)s screened potentially eligible were directed to complete an application.

From April to June 1999, SSA screened 338 widow(er)s for Buy-in benefits in the state as part of the demonstration, and of this total, only 115 were screened potentially eligible. It appeared that the relatively low volume of potential eligibles using this approach would generate little additional enrollment. The lack of activity under this model made Buy-in screening an exception to the daily routine.

B. Using Funeral Director Leads

As a result of the low volume, some field offices started using funeral director death report forms to identify recent widow(er)s and contacting appropriate clients for screening. This practice became official policy in July 1999. In September, field offices were instructed to send outreach letters to clients identified through funeral director death report forms, rather than contacting them directly.

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[43] SSA statistics reveal that 40 percent of non-married women (a group that includes widows) rely on Social Security for 90 percent of their income in comparison to only 18 percent of married couples. Nearly one-quarter of non-married women rely on Social Security as their sole source of income. (Statements on Introduced Bills and Joint Resolutions (Senate – September 29, 1998).)

SSA sent 277 letters to widow(er)s living in Massachusetts).[44] As ***Exhibit 6.1*** shows, most of the letters were sent between May and September 2001.

Exhibit 6.1
Number of Letters Mailed to Widow(er)s in 2001

Month Letters Sent	Number	Percent
March	1	0.4
April	1	0.4
May	40	14.4
June	53	19.1
July	63	22.7
August	25	9.0
September	47	17.0
October	28	10.1
November	17	6.1
December	2	0.7
Total	**277**	**100.0**

Source: The Lewin Group tabulations of Massachusetts letter data.

C. Response from Outreach

Exhibit 6.2 presents the number of individuals screened as part of the demonstration.[45] From April 1999 to December 1999, 666 individuals were screened. From April 2000 to December 2000, another 313 individuals were screened.[46] The vast majority of beneficiaries – about 97 percent – were screened in the field office, and not the DSU. This is not surprising for the first five months of the demonstration, given the nature of the model – beneficiaries were screened after being identified by SSA field office staff. However, after SSA began sending the outreach letters, which included the DSU toll-free number, the number of calls to the DSU increased only slightly. Perhaps beneficiaries were more likely to go the SSA field office instead of calling the DSU, because they required other assistance related to their change in marital status.

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[44] In some cases, more than one letter was sent to a Medicare beneficiary; these totals exclude the duplicates.

[45] These estimates differ from estimates in earlier reports, because for this analysis, we counted the spouse of an individual who was screened, as well as the person screened. Interestingly, while the demonstration targeted recent widow(er)s, 13.4 percent reported having a spouse when screened.

[46] Data were unavailable for the period from January 2000 to March 2000.

Exhibit 6.2
Frequency and Percentage of Screenings by Month

Month	Field Offices		DSU		Total
	Screens	% of Total	Screens	% of Total	
1999					
April	104	98.1	2	1.9	106
May	108	98.2	2	1.8	110
June	122	100.0	0	0.0	122
July	69	98.6	1	1.4	70
August	56	94.9	3	5.1	59
September	43	95.6	2	4.4	45
October	37	94.9	2	5.1	39
November	54	98.2	1	1.8	55
December	53	88.3	7	11.7	60
1999 Total	**646**	**97.0**	**20**	**3.0**	**666**
2000					
April	2	100.0	0	0.0	2
May	52	96.3	2	3.7	54
June	52	94.5	3	5.5	55
July	46	92.0	4	8.0	50
August	35	94.6	2	5.4	37
September	44	97.8	1	2.2	45
October	27	96.4	1	3.6	28
November	23	95.8	1	4.2	24
December	18	100.0	0	0.0	18
2000 Total	**299**	**95.5**	**14**	**4.5**	**313**
Total (both years)	**945**	**96.5**	**34**	**3.5**	**979**

Source: The Lewin Group tabulations of screener data.

II.   Application Process

The state made several changes to the application process throughout the demonstration period that could affect changes in enrollment over time. These included the process for scheduling application appointments with the state Medicaid agency, the application form that widow(er)s were provided, and the involvement of SSA in helping widow(er)s complete their applications.

A. Scheduling Appointments

At the start of the demonstration, the SSA office called the state Medicaid agency and scheduled an appointment for a phone interview, rather than scheduling an in-person appointment. The phone interview was offered because there are only four MassHealth Enrollment Centers (MEC) in the state, making travel to an office difficult for many beneficiaries, and phone assistance was the state's usual method. Thus, the field offices were to send or give the screening letter and application packet to the client, and the client was to mail the application to MEC.

The MECs later indicated that they preferred that the field offices stop setting up appointments with MEC altogether, and instead instruct the client to contact them any time during business hours if they have any questions about the application. This approach was later made the standard procedure for the widow(er)s model throughout Massachusetts.

B. Application Forms

At the outset of the demonstration, the state supplied the field offices with a relatively new shortened form to use in the demonstration specifically for SLMB and QI-1 benefits (thus, the form covers premiums but not co-payments or deductibles). To access QMB benefits, the state requires that the standard long Medicaid application be used because individuals who met the QMB income criteria and the SSI resource levels would be eligible for full Medicaid benefits. However, the state did not provide the standard long form to the field offices. This process created concerns that clients were being disadvantaged by the demonstration process, which led to procedural changes later. In September 1999, the state sent letters to SLMB and QI-1 new enrollees informing them of the additional benefits for which they may be eligible. For the demonstration, SSA and the state eventually agreed that these long forms would be distributed to all field offices. Procedures for QMB enrollment became a standard part of the widow(er)s model in mid-September.

C. Submitting Applications

As mentioned above, at the start of the demonstration, potentially eligible clients were given an application form with the instructions to complete it and send it to the state Medicaid agency. Starting in May 2000, the SSA field office staff assisted widow(er)s, identified to be potentially eligible for Buy-in, with completing the Massachusetts short-form premium-only application. This was accomplished in person or by telephone. If the individual met the income criteria for QMB/full Medicaid benefit eligibility, field office staff would provide the longer form and information for the beneficiary to contact the MEC.

Just as with the earlier versions of the widow(er)s model, the main hindrance to smooth operations was the exception nature of the activity. Instead of a normal part of processing with the accompanying electronic forms and reminders, the use of a screening tool that sits outside of the normal system, a paper application from the state instead of an electronic form in the usual system, and the lack of automatic ticklers if a person was a widow(er) and had Title II income less than $947 per month all contributed to what appears to be less activity than expected. To combat this problem, the regional office sent out extensive training materials and biweekly notices to field office managers to remind their staff about the project and the importance of recording information.

After this policy change was instituted, SSA staff helped 72 beneficiaries complete their applications and forwarded these to the state Medicaid agency.

III.   Characteristics of Participants

Exhibit 6.3 provides demographic and Title II benefit information on beneficiaries who were sent letters, screened, and applied with the assistance of SSA. Widow(er)s who were sent letters had lower Title II income and were older. Widow(er)s screened were more likely to have Title II

income that was above the poverty level and were younger than either individuals sent letters or individuals who applied. Finally, widow(er)s who submitted an application with the assistance of SSA staff were overwhelmingly female and more likely than the other groups to be non-white.

Exhibit 6.3
Characteristics of Widow(er)s Participating
in Demonstration

Characteristic	Sent Letter	Screened	Applied
Average Title II Income	$473.04	$744.53	$553.24
Title II Income as a Percent of Poverty Guideline	70.1%	107.9%	80.5%
Average Age	78.8	77.3	75.6
Under Age 65	1.1%	12.7%	6.5%
Female	74.3%	71.9%	91.9%
Non-White	0.6%	4.0%	6.5%
Sample Size[a/]	**183**	**975**	**62**

[a/] This includes only screens, letters, and applications that matched to the MBR.

Source: The Lewin Group analysis of matched screener, Massachusetts letter, and MBR data.

IV.   Enrollment

Among the letters sent to individuals with Title II income less than 135 percent of the poverty guideline, only 7.1 percent were enrolled in December 2000 (see ***Exhibit 6.4***).[47] Among those screened, 13.7 percent were enrolled and among those who applied, 48.4 percent were enrolled as of December 2000.

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[47] For our analyses, we included only letter recipients that matched to the MBR file.

Exhibit 6.4
Enrollment Among Widow(er)s Participating in Demonstration

Month	Sent Letter and Enrolled	Percent of Letters	Screened and Enrolled	Percent of Screened	Applied and Enrolled	Percent of Applied
April, 1999	---	---	47	4.8%	---	---
May, 1999	---	---	56	5.7%	---	---
June, 1999	---	---	65	6.7%	---	---
July, 1999	---	---	66	6.8%	---	---
August, 1999	---	---	70	7.2%	---	---
September, 1999	3	1.6%	74	7.6%	---	---
October, 1999	3	1.6%	82	8.4%	---	---
November, 1999	3	1.6%	85	8.7%	---	---
December, 1999	3	1.6%	85	8.7%	---	---
January, 2000	4	2.2%	86	8.8%	---	---
February, 2000	4	2.2%	95	9.7%	6	9.7%
March, 2000	4	2.2%	100	10.3%	9	14.5%
April, 2000	5	2.7%	108	11.1%	12	19.4%
May, 2000	7	3.8%	111	11.4%	14	22.6%
June, 2000	7	3.8%	122	12.5%	23	37.1%
July, 2000	8	4.4%	125	12.8%	26	41.9%
August, 2000	9	4.9%	129	13.2%	27	43.5%
September, 2000	10	5.5%	131	13.4%	28	45.2%
October, 2000	12	6.6%	132	13.5%	28	45.2%
November, 2000	12	6.6%	131	13.4%	29	46.8%
December, 2000	13	7.1%	134	13.7%	30	48.4%
Sample Size	**183**		**975**		**62**	

Source: The Lewin Group analysis of matched screener, Massachusetts letter, MBR data, and Third Party Billing Records data .

We examined the screening sample in more detail and found that of 975 individuals screened, 376, or 38.6 percent, were determined to be potentially eligible. The potentially eligible rate is the lowest of all models.[48] Of the 376 that screened potentially eligible, 38 percent eventually enrolled.

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[48] In the other models, the percent screened potentially eligible was 44.3 percent in the screening model, 61.9 percent in the co-location model, 63.4 percent in the application model, 49.5 percent in the peer assistance model, and 63.9 percent in the decision making model.

CHAPTER 7:   IMPACT OF ALL THE DEMONSTRATION MODELS ON BUY-IN ENROLLMENT

This chapter examines the relative impact of the screening, co-location, application, peer assistance , and decision making demonstration models on enrollment in the Buy-in program.

I.   Methodology

For the analyses in this chapter, we used the difference-in–difference estimation described in ***Chapter 5***. In order to estimate the effect of the demonstration overall and by model, we needed to develop an approach that took into account the significant differences in the characteristics of the populations in the individual sites. We chose to use the demonstration DID populations for all of the sites combined for this purpose. By using the same population for all of the estimates, we eliminated differences that resulted from the population in each site for those characteristics we could capture. We chose the entire population for all the demonstration sites rather than one of the individual sites because criteria and justification for choosing a particular site did not have to be developed and characterizing the results as representative across all the demonstration sites was the most appropriate. In order to estimate the percent enrolled in the demonstration sites, we had to generate models for enrollment in each demonstration site as described for the comparison areas in ***Chapter 5***. Using these demonstration site specific models, we predicted the percent enrolled using the entire demonstration site population. This population was also used to predict participation for the selected comparison areas. Finally, the difference-in-difference estimates were calculated

II.   Results

A. Percent Enrolled at the Start of the Demonstration

We used the percent of those eligible to receive letters who enrolled in Buy-in (including those already enrolled) as the measure to assess the impact of the demonstrations. The starting point for this measure varied by site (see ***Exhibit 7.1)***. In general, the decision making sites had the highest percentage of individuals meeting the income criteria for letter-targeted individuals enrolled in Buy-in in the first month letters were sent. At the site level, the two California sites (Los Angeles and San Francisco) and the Little Havana area of Miami Florida all had Buy-in enrollment levels exceeding 30 percent at the start of the demonstration. The high initial enrollment in the California sites is likely related to the generous state supplement to SSI and automatic enrollment of Medicare eligible SSI recipients into Medicaid for full benefits. The generous state supplement in conjunction with full Medicaid benefits (including prescription drug coverage) serve as an incentive for individuals to apply for these benefits prior to the demonstration. It also means there are fewer people between the full Medicaid benefit and the upper income bound for Part B premium assistance. The Little Havana area of Miami has a large Hispanic population and the highest percent of those age 65 and over with income below the poverty level in 1990. On the low end of initial percent enrolled, both the screening model sites (Carlisle and Lebanon) had enrollment rates of less than 10 percent. These two sites also were among the lowest in terms of the percent of elderly with income below the poverty level.

We expected the sites with high elderly poverty rates to have higher enrollment prior to the demonstration and those with lower poverty levels to have smaller percentages enrolled prior to the demonstration. The expectation was based on the means-tested nature of the benefit and the premise that the percent in poverty would more accurately reflect the potentially eligible population in the demonstration sites because, unlike the percent in poverty measure, the Title II income measure for the DID analysis population does not account for all income sources. Therefore, the percent in poverty provides a proxy measure for the extent to which elderly individuals in each demonstration site with low Title II income have other sources of income. The expected relationship holds true, but only if the California sites are excluded – correlation of 0.93 (see *Exhibit 7.1*). The California sites possibly skew the correlation because the generous state SSI supplement brings most individuals above the poverty level, but the automatic Medicaid enrollment for SSI recipients means a high percentage of the DID analysis population enrolled in Buy-in.

The percent enrolled should not be viewed as a participation rate among potential eligibles because the letter criteria were restricted to using only Title II income, and many of those sent letters would not qualify for Medicare Buy-in benefits because their income and resources exceeded the limits. Based on the non-responders survey of those in the screening, co-location, and application sites, we estimated that roughly half of those in the impact analysis file would likely not qualify for Buy-in based on income and assets. This would imply initial participation rates in the range of between 20 and 80 percent rather than 10 to 40 percent; although as indicated above, these could be influenced by site specific circumstances related to current SSI and Medicaid benefit levels and eligibility.

B.   Adjusted Difference-in-Difference Estimates Analysis by Model

The changes between the pre- and post-periods were significantly higher in the demonstration sites than in the selected comparison areas. *Exhibit 7.2* displays the maximum estimates of the changes in the percent enrolled from the pre-period to the post-period for the demonstration and comparison sites by model. The enrollment used to assess the impact represents the cumulative effect on enrollment, so it is appropriate to focus on the maximum DID.

As discussed in Section I, to estimate average effects by model and overall, we adjusted the selected comparison areas, to reflect the entire demonstration site population. The maximum DID overall was 1.5 percentage points. By model, it was 0.6 percentage points for the peer assistance model, 1.5 percentage points for the screening model, 1.5 percentage points for the decision making model, 1.7 percentage points for the co-location model, and 2.1 percentage points for the application model. The percent enrolled in the Buy-in program increased up to seven percent for the five models combined.

Exhibit 7.1
Percent of Letter Eligible Enrolled April 1999 and Percent
in Poverty Among 1990 Population Age 65 and Older

Model/Site	Percent Letter Eligible Enrolled First Mailing Month	Among 65+ Percent in Poverty, 1990
Screening	**9.7**	**7.5**
Carlisle	9.9	6.8
Lebanon	9.4	8.7
Co-Location	**14.9**	**11.4**
Muskogee	20.6	18.2
Oklahoma City	11.9	13.1
Uniontown	20.6	14.5
West Chester	10.9	6.1
Application	**19.0**	**21.9**
Corpus Christi	24.4	20.2
Evansville	19.0	11.6
Lexington	18.6	13.2
Miami	36.4	32.2
Orlando	13.9	16.1
Peer Assistance	**24.6**	**12.9**
Asheville	20.1	16.1
Los Angeles	38.9	13.6
Omaha	16.5	10.6
Pittsburgh	16.9	14.4
St. Louis	9.8	7.8
Decision Making	**22.7**	**14.2**
Dallas	17.3	12.8
Philadelphia	22.7	16.3
San Antonio	25.7	22.3
San Francisco	31.5	9.9
ALL SITES	**21.4**	**14.2**
Correlation		
All Sites		0.63
Excluding California Sites		0.93

Source: The Lewin Group analysis of matched Master Beneficiary Record and Third Party Billing data for individuals with Title II income less than 135% of the poverty guideline and Medicare Part A and 1990 Decennial Census data.

Exhibit 7.2
Maximum Percentage Point Difference-in-Difference by Model

Model/Site	Maximum Percentage Point DID
Screening	1.5
Co-Location	1.7
Application	2.1
Peer Assistance	0.6
Excluding Asheville, NC	*0.8*
Decision Making	1.5
Excluding San Francisco, CA	*1.8*
All Models	**1.5**

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, and Third Party Billing data for individuals with Title II income less than 135% of the poverty guideline and Medicare Part A.

Another expression of the results by model is in terms of the number of additional enrollments as a result of the demonstration per 1,000 letters sent. *Exhibit 7.3* provides enrollments per 1,000 letters sent by site for all of the models considered in this chapter. This implies that increased enrollment in the screening, co-location, application and decision making models was two to 3.5 times the peer assistance model.

Exhibit 7.3
Additional Enrollment per 1,000 Letters Mailed

Model/Site	Additional Enrollment per 1,000 Letters
Screening	18
Co-Location	20
Application	26
Peer Assistance	7
Excluding Asheville, NC	*10*
Decision Making	18
Excluding San Francisco, CA	*22*
TOTAL	**17**

Source: The Lewin Group analysis.

In general, these results must be viewed with some caution because they are based on a limited number of sites within each model and there may be site-specific variation for which we were unable to account for explicitly in our analysis. For example:

- Among the co-located sites, the large DID increases in Muskogee relative to the other sites, may have been the result of the extra involvement of the co-located worker in actually conducting the screens.

- Orlando had a much smaller increase than the other application model sites. We speculated that this might be the result of the longer travel distance to the central office location, which may have discouraged potential applicants.

- Enrollment in the Asheville peer assistance site was actually lower than the comparison area. The Asheville project experienced some initial start up problems related to obtaining a facility and telephone hook-up, which may have affected their ultimate enrollment. In addition, as of January 1, 1999, North Carolina raised its full Medicaid eligibility from the Federal SSI income level to 100 percent of the poverty guideline possibly causing a statewide increase in enrollment that swamped the demonstration's efforts.

- As outlined previously, the generous state SSI supplement and automatic enrollment for full Medicaid benefits in California likely caused already high enrollment prior to the demonstration in San Francisco.

- Finally, definitive conclusions regarding the screening model are hampered by having only two sites in the same state upon which to base the analysis.

III.   Conclusions

Overall the demonstrations increased Buy-in enrollment by 1.5 percentage points, or about seven percent. While 1.5 percentage points may seem small, it in fact represents the potential to increase participation from 60 percent among individuals eligible for Buy-in benefits to 64 percent. The specific models resulted in differing percentage increases ranging from 2.6 percent for peer assistance to 10 percent for the application model.

The letters were clearly an important component of the increased enrollment because they make people aware of the Buy-in benefit. However, the demonstration results suggest that even more critical is the organization and implementation for dealing with the response to the letters. In the screening, co-location, application and decision making models, the availability of a central toll-free telephone number where individuals were screened immediately for benefits and, if the individual was potentially eligible, an appointment for application intake was made distinguishes these models from the peer assistance and widow(er)s models. In the former models, the interested party accomplished several steps in one phone call. Active assistance completing the applications was also furnished later. In contrast, the peer assistance model required the individuals to call and leave information for a volunteer. The volunteer returned the call to pursue the screening, and if potentially eligible, send an application for individuals to fill out and return on their own. The widow(er)s model required SSA field office staff to actively pursue potential eligibles identified through the normal course of business (either by screening when a new widow(er) contacted the filed office to report a death or generating a letter based on death reports), rather than responding to a beneficiary-initiated contact from a centrally disseminated letter.

Although the results of the initial three models suggested that greater involvement of SSA staff and the use of the SSA office for application intake rather than using the state Medicaid agency resulted in progressively higher enrollment rates, the decision making model enrollment indicates that site considerations also play an important role. The models that used the SSA field offices for application intake (co-location, application and decision-making) appear to have a greater impact than the screening model referral to the Medicaid agency; however, the difference is not substantial. In fact, site differences in population characteristics and the role of the QMB benefit relative to full Medicaid benefits can also be important.

APPENDIX A:

Summary of Outreach Activities Conducted in San Francisco

Summary of Outreach Activities Conducted in San Francisco

Date	Event
July 20	One of two major Chinese/Cantonese daily papers, Tsing Tao, published a story about the Medicare pilot program
July 26	500 flyers were distributed to each of the following facilities: John W. King Senior Center, Network for Elders, Potrero Hill Center
July 26	Lunch presentation at Potrero Hill Center to a group of 30 seniors
July 28	500 flyers were distributed to both the OMI Senior Center and the Bayview Hunter's Point Senior Center
July 29	200 flyers were distributed to each of the following organizations' booths at the 3rd Annual Bayview 3rd Street Festival: Black Nurses health Care Group, Bayview Senior Center, Bayview Senior Residence, Potrero Hill House
July 29	Distributed 100 flyers to the Mission Neighborhood Health Center
July 29	Sent 191 invitations to the kick-off event at Potrero Hill House
Week of August 7	San Francisco Supervisor Leno issued a press release in support of the SSA program.
August 10	Kick-off event at Protrero Hill House. KRON-TV (NBC affiliate) covered the event.
August 9	Presentation at the SF Mission YMCA to approximately 60 seniors
August 10	Article regarding the pilot program printed in *The San Francisco Gate*
August 11	Video presentation at SF John W. King Senior Center to 40 seniors
August 12	Video presentation at District 11 Council Meeting. The Council includes community groups from Cayuga Improvement Association, Excelsior District Improvement Association, Excelsior Business Association, Council of District Merchants, Outer Mission Residents Association, Coleman Advocates, Housing Conservation and Development. Flyers were handed out to representatives of each community group.
August 12	Story about the pilot program on KRON-TV
Week of August 7	Video (English version) screened at an evening meeting of the San Francisco Black Chamber of Commerce
Week of August 21	307 invitations sent to inter-faith clergy member for the September 6th Clergy Breakfast
August 22	Brochures and flyers were distributed at the OMI Senior Center Health Day/EOC Food Box Day and a video was left for future viewing
August 23	Brochures were distributed at the opening night of the African Solo Arts Festival
Week of August 21	Flyers were distributed at El Bethel Senior Residence Food Give Away Day
Week of August 21	Two audiocassettes were delivered to Lighthouse for the Blind and a video was delivered to Senator Feinstein's office.
Week of August 28	AFL-CIO Labor Day Breakfast - almost 400 people were in attendance and 250 sets of MAP information (including press releases, response form, bilingual fliers and brochures) were distributed
August 30	Presentation at On Loc's 30th Senior Center Lunch Program - 200 seniors attended, video shown and 500 flyers left for distribution
August 31	Presentation at Temple United Methodist Church OI Neighbors in Action - 75 persons present, video shown, 100 flyers and brochures left for distribution
September 6	Clergy Breakfast - 35 clergy and 10 political/community leaders were in attendance. Video shown and MAP materials distributed.
September 8	Presentation at Senior Center #6 - 45 person present, video shown
September 9-10	Chinese Moon Festival - flyers were passed out

Summary of Outreach Activities Conducted in San Francisco, continued

Date	Event
Week of September 11	Sent MAP materials to Meals on Wheels, La Raza Centro Legal, Southeast Asian Community Center, Jones Memorial Methodist Church, Public Health Services, Senior Central #6, Elder Abuse Symposium, Senator Boxer's office, Self-Help for the Elderly
Week of September 11	Network for Elders "Elder Abuse Community Conversation" attended by over 85 seniors; brochures and flyers were distributed.
Week of September 11	St. Mary's Cathedral Disabilities Conference - MAP booth manned.
September 13	Labor Council Luncheon - leaders of 40 different unions were present and 45 sets of MAP information were distributed.
September 16	Visitation Valley Neighborhood Day 2000 - over 500 people visited their resource table where video was shown and flyers were distributed.
September 16	African American Senior Health Day attended by 200 seniors; brochures and flyers were distributed.
Week of September 18	Presentation at La Raza Centro Legal for 45 seniors; video shown and brochures and flyers also distributed.
Week of September 18	Presentation at Bay View/Hunter's Point Senior Center for 38 seniors; video shown and brochures and flyers distributed
Week of September 18	100 packets of MAP information were sent to religious leaders who were unable to attend the clergy breakfast
Week of September 25	Sent 1938 MAP material kits to social workers that service San Francisco.
September 26-27	MAP materials were distributed at "Food Box" Distribution Day at Ping Yuen.
September 27	Presentation to 30 union officials at a monthly labor breakfast; MAP materials were distributed.
October 1	Castro Street Fair - distributed materials at MAP resource booth
October 6	MAP Free Lunch Day at Western Addition Senior Center and Royal Adah Apartments; lunch provided, video shown and MAP information distributed
October 7	Distributed brochures, posters and flyers at Town Meeting at Doelger Senior Center.
October 7	Distributed brochures, posters and flyers at Mothers United Against Aids prayer breakfast at the Ella Hill Hutch Community Center.
Week of October 2	Media kits sent to broadcast stations and newspapers.
Week of October 2	Public service announcement (PSA) materials distributed to Chinese radio stations and newspapers. Chinese Times agreed to print PSA four times a week until October 31, 2000.
Week of October 2	English and Spanish PSA materials distributed to over 260 outlets in the San Francisco DMA.
Week of October 9	Sent 63 bouquets of flowers and MAP materials to low-income senior residences for the lobby to encourage residence directors to spread MAP information.
October 11	Presentation at Visitation Valley Community Center and Lady Shaw Senior Center. MAP materials also distributed at Japantown event
October 12	Distributed flyers and brochures at town hall meeting of Congresswoman Nacy Pelosi
October 12	MAP resource booth available to 600 participants at the 10th Annual Senior Action Network Convention.
October 12	Presentation at EL Bethel Senior Residence for 75 seniors.
October 12	Presentation in Cantonese at the Geen Mun Senior Center/Self Help for the Elderly
October 14	MAP resource booth available at the Self Help for the Elderly "Walk-a-thon".
October 14	MAP resource booth staffed at the Japanese American Citizens League health event.

Summary of Outreach Activities Conducted in San Francisco, continued

Date	Event
October 16	Presentation at the Richmond Senior Center to 85 seniors.
October 17	Presentation at the Dorothy Day Care program to 100 seniors.
October 18	Presentation at the Woolf House Dining Room to 70 seniors.
October 19	Presentation at the Mendelsohn House Dining Room to 123 seniors.
October 20	Presentation at the John King Senior Centers to 45 seniors.
October 20	Presentation before the Commission on Disabilities.
October 21	MAP and upcoming health fair mentioned in the *San Francisco Examiner;* SSA hotline number listed.
Week of October 23	MAP presentations were made at the following organizations: Career Fair for persons with disabilities, Central YMCA - Senior Center, Canon Kip Senior Center, Marlton Manor, On Low Wui Senior Center, Rosa Parks Senior Center, Manilatown Senior Center, Sunset Senior Center
October 27	5,100 pieces of MAP information were distributed at the Health Fair at the West Bay Conference Center where over 700 seniors and persons with disabilities were in attendance.

APPENDIX B:

Odds of Being Screened

Exhibit B.1
Odds of Being Screened by Site for Decision Making Model

	Dallas	Philadelphia	San Antonio	San Francisco	Decision Making
Intercept	0.051***	0.085***	0.138***	0.134***	0.091***
Title II [a/]	1.001**	0.999	1.004***	0.999	1.001*
Age	0.993***	0.991***	0.981***	0.979***	0.988***
Disabled	1.624**	1.407**	0.493	0.597	1.248*
Disabled x Age	0.999		1.016**	1.010**	1.002
Spanish Preference	1.64***	1.566***	1.363***	2.919***	1.671***
Married	1.017	1.139***	1.086	1.083	1.112***
Female	1.278***	1.112***	1.232***	1.036	1.157***
Widow(er)	1.1**	1.206***	0.922	0.841**	1.141***
Non-White	2.226***	1.511***	1.188*	2.134***	1.696***
Medicare+Choice	1.942***	1.972***	1.715***	1.788***	1.839***

[a/] Title II income is equal to the sum of couple's Title II income and is expressed as a percentage of 135 percent of the poverty guideline.

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of matched Master Beneficiary Record and screener and Group Health Plan data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guideline.

**Appendix C:
Odds of Enrolling**

Exhibit C.1
Odds of Enrolling by Site and Model

	Peer Assistance					Decision Making			
	Asheville	Los Angeles	Omaha	Pittsburgh	St. Louis	Dallas	Phila-delphia	San Antonio	San Francisco
Intercept	0.009***	12.88***	0.032***	0.028***	0.017***	0.083***	0.408***	0.178***	0.444**
Title II [a/]	0.986***	0.991***	0.992***	0.986***	0.989***	0.992***	0.992***	0.998**	0.991***
Age	1.024***	0.937***	0.993	1.007	0.998	0.992**	0.973***	0.98***	0.973***
Disabled	107.372***	0.237***	36.444***	84.757***	23.771***	4.389***	3.026***	2.342	6.122***
Disabled x Age	0.949***	1.026***	0.963***	0.95***	0.971***	0.988***	0.992**	0.997	0.984***
Spanish Preference		1.935***				1.923***	2.353***	1.557***	1.715***
Married	1.003	1.138**	1.598**	0.739*	0.948	1.073	0.97	1.126	1.353***
Female	0.977	0.85***	1.171	1.053	1.123	1.158***	0.883***	1.096	0.85***
Widow(er)	1.782***	1.285***	1.324**	1.398***	1.217*	1.534***	1.694***	1.31***	1.181***
Non-White	1.951***	1.139***	2.193***	1.534***	1.862***	2.156***	1.603***	1.208*	1.542***
Medicare+Choice	0.368	0.521***	2.009***	1.118	1.45***	1.532***	1.215***	1.62***	0.682***

[a/] Title II is equal to the sum of couple's Title II income for couples and is expressed as a percentage of 135 percent of the poverty guideline.

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan and Third Party Billing Record data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

Exhibit C.2
Odds of Enrolling Among Potentially Eligible by Site for Decision Making

	Dallas	Philadelphia	San Antonio	San Francisco	Decision Making
Intercept	11.111***	5.906***	1.495	3.979	8.045***
Title II [a/]	0.997**	1.000	0.999	0.997	0.998**
Age	0.972***	0.977***	1.002	0.982	0.975***
Disabled	0.697	0.659	5.611	0.638	0.882
Disabled x Age	1.006	1.005	0.976	1.010	1.002
Spanish Preference	0.766*	1.260	0.967	1.001	1.073
Married	0.96	0.79**	0.971	1.180	0.993
Female	1.136*	0.802***	1.020	0.804	0.939
Widow(er)	1.2**	1.100	1.082	1.026	1.153***
Non-White	0.944	0.787***	0.851	0.776*	0.771***
Medicare+Choice	1.251	1.133**	1.676***	0.993	1.064

a/ Title II income is equal to the sum of couple's Title II income for couples and is expressed as a percentage of 135 percent of the poverty guideline.

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, screener and Third Party Billing Record data for SSA letter-targeted individuals with Title II income less than 135 percent of the poverty guidelines.

Appendix D:
Difference-in-Difference Analysis Results

In this appendix, we outline the adjustment method used in developing the difference-in difference estimates and the resulting estimates. The Blinder-Oaxaca approach was used to examine the differences in enrollment rates between the comparison and demonstration sites. This approach was chosen in order to hold constant differences in individual characteristics that might have an effect on the probability of enrolling. The Blinder-Oaxaca technique allows the decomposition of differences in the enrollment rate due to the "unexplained" factors versus individual characteristics. To determine whether the differences in enrollment is consistent with demonstration or individual characteristics, it must be shown that there is significant difference in enrollment between comparison and demonstration sites, even after holding constant the characteristics of the two sites. A variant of the Blinder-Oaxaca decomposition uses the coefficients in the logistic regressions for the comparison site applied to the individual characteristics of the demonstration site in order isolate the enrollment differences between the comparison and demonstration sites for reasons other than the individual characteristics available for the analysis.

In general the methodology requires that we estimate two equations demonstration (demo) model and comparison model (comp) as shown in equations (1) and (2) respectively.

$$ER_{demo} = X_{demo}\, \beta_d \qquad\qquad\qquad (1)$$

$$ER_{comp} = X_{comp}\, \beta_c \qquad\qquad\qquad (2)$$

The decomposition is given by:

$$ER_{comp} - ER_{demo} = (X_{comp} - X_{demo})\,(\beta_d + \beta_c)/2 + (\beta_c - \beta_d)(X_{comp} + X_{demo})/2 \quad (3)$$

ER's are the enrollment rates for the sites, β is a vector of the estimated coefficients and Xs are the independent variables. The first term on the right hand side calculates differences in enrollment due to characteristics between individuals in the demonstration and comparison sites. It is generally termed the explained portion. The last two terms measure the change in enrollment, which cannot be explained and are termed unexplained portion. In our case, $\beta c = \beta d$ because we use the coefficients from the comparison area applied to the demonstration population, therefore the second term drops out of the equation (3).

Exhibit D.1 shows that the demonstration sites and the selected comparison areas differ on most characteristics. A "true" means that the characteristics do not differ while a "false" means that the characteristics do differ. **Exhibit D.2** provides the parameter estimates for each site for the selected comparison logistic regressions. The rank of the standardized estimates is an indicator of the effect of the right hand side variable on the predicted enrollment with the largest impact having a value of 1 and the smallest a value of 9. **Exhibit D.3** presents the resulting data for the DID estimates by site. Finally, in **Exhibit D.4** presents the DID estimates for the San Francisco and no letter group.

Exhibit D.1
Means and T-statistics for Characteristics of Demonstration
and Non-demonstration Sample Population

Variable	Demonstration	Select Comparison Area	T-Statistic[49]	P-value for equal means	No Significant Difference Between Characteristics of Comparison and Demonstration Groups
Asheville					
Age	71.8	71.2	5.2534	0.0000*	FALSE
Title II	91.2	94.2	-9.6784	0.0000*	FALSE
Female	61.6	61.9	-0.6130	0.5396	TRUE
Non-white	5.6	8.3	-11.5720	0.0000*	FALSE
Married	12.9	7.2	17.4170	0.0000*	FALSE
Disabled	32.6	32.5	0.0420	0.9662	TRUE
Medicare+Choice	0.2	1.9	-25.5400	0.0000*	FALSE
Widow(er)	25.6	25.3	0.5930	0.5535	TRUE
Dallas					
Age	70.4	70.7	-4.9795	0.0000*	FALSE
Title II	90.4	90.4	0.3480	0.7278	TRUE
Female	64.5	64.8	-1.3150	0.1883	FALSE
Non-white	31.6	19.2	57.0470	0.0000*	FALSE
Married	9.5	11.2	-11.6710	0.0000*	FALSE
Disabled	33.2	33.0	0.9050	0.3652	TRUE
Medicare+Choice	21.1	31.1	-46.5530	0.0000*	FALSE
Widow(er)	25.4	27.1	-8.1340	0.0000*	FALSE
Los Angeles					
Age	71.5	69.8	14.1968	0.0000*	FALSE
Title II	83.4	85.5	-6.6610	0.0000*	FALSE
Female	57.3	57.6	-0.5110	0.6095	TRUE
Non-white	41.9	52.3	-21.1520	0.0000	FALSE
Married	13.5	12.3	3.6780	0.0002*	FALSE
Disabled	30.1	34.1	-8.7820	0.0000*	FALSE
Medicare+Choice	36.9	38.9	-4.1620	0.0000*	FALSE
Widow(er)	18.7	19.6	-2.3010	0.0214*	FALSE

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[49] A t-statistic is given for the age and income variables. For the other variables, the z-value is reported.

Exhibit D.1, continued
Means and T-statistics for Characteristics of Demonstration and
Non-demonstration Sample Population

Variable	Demonstration	Select Comparison Area	T-Statistic[50]	P-value for equal means	No Significant Difference Between Characteristics of Comparison and Demonstration Groups
Omaha					
Age	70.4	71.3	-5.7140	0.0000*	FALSE
Title II	92.7	94.7	-5.8070	0.0000*	FALSE
Female	64.4	65.6	-2.4030	0.0163*	FALSE
Non-white	17.8	4.1	39.0220	0.0000*	FALSE
Married	7.7	9.1	-4.8920	0.0000*	FALSE
Disabled	35.6	31.4	8.3060	0.0000*	FALSE
Medicare+Choice	12.2	0.0	44.0240	0.0000*	FALSE
Widow(er)	25.8	26.5	-1.6210	0.1050	TRUE
Philadelphia					
Age	71.1	71.2	-0.9911	0.3216	TRUE
Title II	89.7	91.1	-4.9297	0.0000*	FALSE
Female	63.6	64.0	-0.9220	0.3567	TRUE
Non-white	44.8	25.7	42.7380	0.0000*	FALSE
Married	7.2	7.1	0.5140	0.6071	TRUE
Disabled	36.1	30.5	13.0050	0.0000*	FALSE
Medicare+Choice	34.1	12.8	50.3890	0.0000*	TRUE
Widow(er)	25.2	23.3	4.9100	0.0000*	FALSE
Pittsburgh					
Age	72.5	72.9	-2.4961	0.0126*	FALSE
Title II	93.9	100.3	-17.1057	0.0000*	FALSE
Female	64.5	63.1	2.6160	0.0089*	FALSE
Non-white	22.1	15.9	13.7670	0.0000*	FALSE
Married	8.8	10.4	-4.8220	0.0000*	FALSE
Disabled	32.5	33.4	-1.6230	0.1045	TRUE
Medicare+Choice	27.1	26.4	1.3520	0.1763	TRUE
Widow(er)	30.9	35.0	-7.8000	0.0000*	FALSE

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[50] A t-statistic is given for the age and income variables. For the other variables, the z-value is reported.

Exhibit D.1, continued
Means and T-statistics for Characteristics of Demonstration and
Non-demonstration Sample Population

Variable	Demonstration	Select Comparison Area	T-Statistic[51]	P-value for equal means	No Significant Difference Between Characteristics of Comparison and Demonstration Groups
San Francisco					
Age	71.3	69.4	20.8884	0.0000*	FALSE
Title II	85.5	84.9	3.1204	0.0018*	FALSE
Female	56.4	59.2	-8.9190	0.0000*	FALSE
Non-white	49.3	26.5	75.3380	0.0000*	FALSE
Married	10.7	13.0	-11.3390	0.0000*	FALSE
Disabled	31.0	37.9	-23.2870	0.0000*	FALSE
Medicare+Choice	38.2	41.6	-11.3680	0.0000*	FALSE
Widow(er)	17.8	20.3	-10.3740	0.0000*	FALSE
St. Louis					
Age	71.2	69.7	8.9176	0.0000*	FALSE
Title II	95.3	91.3	10.3079	0.0000*	FALSE
Female	66.7	61.0	10.3200	0.0000*	FALSE
Non-white	17.1	10.5	15.2850	0.0000*	FALSE
Married	8.2	9.5	-4.0770	0.0000*	FALSE
Disabled	34.1	36.1	-3.6200	0.0003*	FALSE
Medicare+Choice	27.5	5.9	43.2540	0.0000*	FALSE
Widow(er)	30.1	24.3	10.8430	0.0000*	FALSE

Source: The Lewin Group analysis of matched Master Beneficiary Record, Group Health Plan, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

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[51] A t-statistic is given for the age and income variables. For the other variables, the z-value is reported.

Exhibit D.2
Multivariate Logistic Regression Results Using
Non-Demonstration Site Data (Selected Comparison Area)

Variable	Parameter Estimate	P-value	Standardized Estimate	Rank of Standardized Estimate
Asheville				
Female	-0.2344	0.0001	-0.0628	7
Nonwhite	-0.9045	0.0001	-0.1379	5
Married	-0.3913	0.0001	-0.0559	8
Disabled	-6.9675	0.0001	-1.7998	1
Age	-0.0579	0.0001	-0.3915	3
Disabled	0.0808	0.0001	1.3969	2
Medicare+Choice	0.4372	0.0413	0.0326	9
Widow(er)	-0.4417	0.0001	-0.1059	6
Title II	0.0169	0.0001	0.2619	4
Dallas				
Female	-0.6220	0.0001	-0.1638	7
Nonwhite	-0.8781	0.0001	-0.1905	4
Married	-0.0631	0.1493	-0.0110	9
Disabled	-4.8661	0.0001	-1.2617	1
Age	-0.0254	0.0001	-0.1870	5
Disabled	0.0531	0.0001	0.8987	2
Medicare+Choice	0.7133	0.0001	0.1820	6
Widow(er)	-0.1112	0.0003	-0.0273	8
Title II	0.0166	0.0001	0.3071	3
Los Angeles				
Female	-0.3447	0.0001	-0.0939	5
Nonwhite	-0.0837	0.0572	-0.0230	8
Married	-0.5058	0.0001	-0.0916	6
Disabled	-3.5788	0.0001	-0.9352	1
Age	-0.0098	0.0052	-0.0709	7
Disabled	0.0381	0.0001	0.6425	2
Medicare+Choice	1.2534	0.0001	0.3369	3
Widow(er)	-0.0121	0.8473	-0.0026	9
Title II	0.0153	0.0001	0.2723	4
Omaha				
Female	-0.2134	0.0005	-0.0559	8
Nonwhite	-0.7306	0.0001	-0.0801	6
Married	-0.0993	0.4231	-0.0158	9
Disabled	-4.9940	0.0001	-1.2777	1
Age	0.0079	0.1029	0.0638	7
Disabled	0.0497	0.0001	0.8185	2
Medicare+Choice	10.7527	0.9622	0.1189	5
Widow(er)	-0.5481	0.0001	-0.1334	4
Title II	0.0154	0.0001	0.2655	3

Exhibit D.2, continued
Multivariate Logistic Regression Results Using
Non-Demonstration Site Data (Selected Comparison Area)

Variable	Parameter Estimate	P-value	Standardized Estimate	Rank of Standardized Estimate
Philadelphia				
Female	-0.3269	0.0001	-0.0865	7
Nonwhite	-0.7032	0.0001	-0.1694	4
Married	-0.1056	0.3848	-0.0150	9
Disabled	-6.0295	0.0001	-1.5308	1
Age	-0.0162	0.0002	-0.1188	5
Disabled	0.0657	0.0001	1.0864	2
Medicare+Choice	0.5722	0.0001	0.1055	6
Widow(er)	-0.3001	0.0001	-0.0700	8
Title II	0.0157	0.0001	0.2926	3
Pittsburgh				
Female	-0.7015	0.0001	-0.1867	5
Nonwhite	-0.9176	0.0001	-0.1848	6
Married	-0.0793	0.5888	-0.0133	9
Disabled	-4.4882	0.0001	-1.1667	1
Age	0.0086	0.1307	0.0614	8
Disabled	0.0505	0.0001	0.9093	2
Medicare+Choice	1.1144	0.0001	0.2708	4
Widow(er)	-0.2611	0.0038	-0.0686	7
Title II	0.0188	0.0001	0.3498	3
San Antonio				
Female	-0.3793	0.0001	-0.1037	5
Nonwhite	-0.0113	0.7347	-0.0018	9
Married	-0.4623	0.0001	-0.1104	4
Disabled	-2.8062	0.0001	-0.7064	1
Age	-0.0123	0.0001	-0.0791	6
Disabled	0.0300	0.0001	0.4957	2
Medicare+Choice	0.2820	0.0001	0.0423	7
Widow(er)	0.1304	0.0001	0.0287	8
Title II	0.0186	0.0001	0.3284	3
San Francisco				
Female	-0.0716	0.0057	-0.0194	9
Nonwhite	-0.5377	0.0001	-0.1309	5
Married	0.1562	0.0001	0.0289	8
Disabled	-4.9666	0.0001	-1.3283	1
Age	-0.0057	0.0033	-0.0469	6
Disabled	0.0513	0.0001	0.8700	2
Medicare+Choice	0.9836	0.0001	0.2673	3
Widow(er)	-0.2009	0.0001	-0.0446	7
Title II	0.0073	0.0001	0.1355	4

Exhibit D.2, continued
Multivariate Logistic Regression Results Using
Non-Demonstration Site Data (Selected Comparison Area)

Variable	Parameter Estimate	P-value	Standardized Estimate	Rank of Standardized Estimate
St. Louis				
Female	-0.4164	0.0001	-0.1120	5
Nonwhite	-0.8015	0.0001	-0.1356	4
Married	0.0925	0.6063	0.0149	9
Disabled	-4.8131	0.0001	-1.2746	1
Age	-0.0062	0.3025	-0.0524	8
Disabled	0.0501	0.0001	0.8310	2
Medicare+Choice	0.6227	0.0036	0.0808	7
Widow(er)	-0.4018	0.0001	-0.0950	6
Title II	0.0219	0.0001	0.3844	3

Source: The Lewin Group analysis of matched Master Beneficiary Record, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

Exhibit D.3
Impact of Demonstration
Percent Medicaid Buy-in Enrolled Among Letter Eligible by Month

	Demonstration Area		Adjusted Select Comparison Area		Demonstration Area	Adjusted Select Comparison Area	DID	DID
	Pre	Post	Pre	Post	Percentage Point Change	Percentage Point Change	Percent Change	Percentage Points
Screening Model								
Carlisle								
4/98 - 4/99	8.0	9.9	8.0	9.8	2.0	1.8	10.0	0.2***
5/98 - 5/99	8.2	10.2	8.1	9.8	2.0	1.7	18.6	0.3***
6/98 - 6/99	8.3	10.5	8.2	9.8	2.2	1.6	36.3	0.6***
7/98 - 7/99	8.5	10.8	8.3	9.8	2.3	1.5	52.0	0.8***
8/98 - 8/99	8.7	10.8	8.6	9.8	2.1	1.2	70.8	0.9***
9/98 - 9/99	8.8	10.8	8.7	9.8	1.9	1.1	72.5	0.8***
10/98 - 10/99	9.0	10.7	8.9	9.8	1.7	0.9	88.7	0.8***
11/98 - 11/99	9.1	10.6	9.0	9.8	1.6	0.7	114.1	0.8***
12/98 - 12/99	9.2	10.6	9.2	9.7	1.3	0.5	143.1	0.8***
Lebanon								
4/98 - 4/99	7.9	9.4	8.2	10.6	1.5	2.4	-36.8	-0.9***
5/98 - 5/99	8.0	9.7	8.4	10.7	1.7	2.3	-27.7	-0.6***
6/98 - 6/99	8.1	9.9	8.7	10.7	1.8	1.9	-8.6	-0.2***
7/98 - 7/99	8.2	10.4	9.1	10.7	2.2	1.6	41.1	0.7***
8/98 - 8/99	8.4	10.8	9.2	10.6	2.4	1.4	71.4	1.0***
9/98 - 9/99	8.5	11.1	9.4	10.6	2.5	1.2	105.5	1.3***
10/98 - 10/99	8.8	11.2	9.6	10.6	2.4	1.0	142.0	1.4***
11/98 - 11/99	8.8	11.0	9.7	10.5	2.2	0.7	192.5	1.4***
12/98 - 12/99	8.9	10.9	9.8	10.5	2.0	0.6	208.6	1.4***
Co-location Model								
Muskogee								
4/98 - 4/99	17.2	20.6	16.4	18.8	3.4	2.4	44.6	1.0***
5/98 - 5/99	17.4	21.0	16.5	18.8	3.6	2.3	54.9	1.3***
6/98 - 6/99	17.6	21.2	16.8	18.8	3.7	2.0	80.9	1.6***
7/98 - 7/99	17.7	21.3	17.1	18.8	3.6	1.8	105.2	1.9***
8/98 - 8/99	18.0	21.4	17.2	18.7	3.4	1.5	131.3	1.9***
9/98 - 9/99	18.2	21.3	17.6	18.5	3.1	0.8	267.2	2.2***
10/98 - 10/99	18.5	21.2	17.8	18.4	2.7	0.6	384.1	2.2***
11/98 - 11/99	18.7	21.2	18.0	18.3	2.4	0.3	593.4	2.1***
12/98 - 12/99	19.0	21.0	18.1	18.2	2.0	0.1	2363.4	1.9***

Exhibit D.3, continued
Impact of Demonstration
Percent Medicaid Buy-in Enrolled Among Letter Eligible by Month

	Demonstration Area		Adjusted Select Comparison Area		Demonstration Area	Adjusted Select Comparison Area	DID	DID
	Pre	Post	Pre	Post	Percentage Point Change	Percentage Point Change	Percent Change	Percentage Points
Oklahoma								
4/98 - 4/99	9.6	11.9	10.8	12.9	2.4	2.1	13.6	0.3***
5/98 - 5/99	9.6	11.9	10.9	13.0	2.3	2.1	6.4	0.1***
6/98 - 6/99	9.8	12.0	11.1	13.1	2.2	2.0	13.1	0.3***
7/98 - 7/99	9.9	12.1	11.3	13.2	2.2	1.9	13.2	0.3***
8/98 - 8/99	10.0	12.1	11.5	13.1	2.1	1.6	27.3	0.4***
9/98 - 9/99	10.2	12.1	11.7	13.0	1.9	1.3	43.7	0.6***
10/98 - 10/99	10.4	12.1	11.9	13.0	1.7	1.1	56.2	0.6***
11/98 - 11/99	10.5	12.0	12.1	12.9	1.5	0.8	77.3	0.6***
12/98 - 12/99	10.7	11.9	12.2	13.0	1.2	0.7	60.2	0.5***
Uniontown								
4/98 - 4/99	18.6	20.6	15.5	17.7	2.0	2.2	-9.2	-0.2***
5/98 - 5/99	18.7	20.9	15.7	17.8	2.3	2.1	7.3	0.2***
6/98 - 6/99	18.8	21.3	15.8	17.9	2.5	2.1	19.3	0.4***
7/98 - 7/99	18.9	21.4	16.0	17.8	2.6	1.9	39.2	0.7***
8/98 - 8/99	19.1	21.6	16.2	17.8	2.4	1.6	49.8	0.8***
9/98 - 9/99	19.3	21.7	16.5	17.8	2.3	1.3	75.3	1.0***
10/98 - 10/99	19.5	21.7	16.7	17.8	2.2	1.1	95.0	1.1***
11/98 - 11/99	19.7	21.6	16.8	17.6	1.9	0.8	133.9	1.1***
12/98 - 12/99	19.8	21.5	16.9	17.6	1.7	0.7	137.7	1.0***
West Chester								
4/98 - 4/99	8.5	10.9	7.7	9.1	2.4	1.4	75.7	1.0***
5/98 - 5/99	8.6	11.0	7.8	9.1	2.4	1.4	73.3	1.0***
6/98 - 6/99	8.7	11.1	7.9	9.2	2.4	1.3	91.0	1.2***
7/98 - 7/99	8.9	11.3	8.1	9.2	2.5	1.2	109.8	1.3***
8/98 - 8/99	9.3	11.5	8.3	9.2	2.2	1.0	131.1	1.2***
9/98 - 9/99	9.5	11.7	8.4	9.3	2.2	0.9	136.8	1.2***
10/98 - 10/99	9.8	11.7	8.5	9.3	1.9	0.8	135.4	1.1***
11/98 - 11/99	10.0	11.6	8.5	9.2	1.6	0.7	138.9	0.9***
12/98 - 12/99	10.4	11.5	8.6	9.2	1.1	0.6	78.3	0.5***

Exhibit D.3, continued
Impact of Demonstration
Percent Medicaid Buy-in Enrolled Among Letter Eligible by Month

	Demonstration Area		Adjusted Select Comparison Area		Demonstration Area	Adjusted Select Comparison Area	DID	DID
	Pre	Post	Pre	Post	Percentage Point Change	Percentage Point Change	Percent Change	Percentage Points
Application Model								
Corpus Christi								
4/98 - 4/99	21.1	24.4	26.2	28.2	3.3	2.0	64.3	1.3***
5/98 - 5/99	21.3	25.0	26.2	28.6	3.8	2.3	60.8	1.4***
6/98 - 6/99	21.4	25.4	26.3	28.7	4.0	2.4	62.5	1.5***
7/98 - 7/99	21.5	25.9	26.4	28.7	4.4	2.3	87.5	2.0***
8/98 - 8/99	21.7	26.1	26.5	28.8	4.4	2.3	91.9	2.1***
9/98 - 9/99	21.9	26.1	26.8	28.7	4.3	1.9	126.9	2.4***
10/98 - 10/99	22.1	26.3	27.0	28.6	4.2	1.6	163.3	2.6***
11/98 - 11/99	22.2	26.1	27.2	28.3	3.9	1.2	235.6	2.7***
12/98 - 12/99	22.4	26.0	27.3	28.0	3.6	0.7	411.4	2.9***
Evansville								
4/98 - 4/99	16.1	19.0	15.4	17.2	2.8	1.8	56.1	1.0***
5/98 - 5/99	16.1	19.5	15.5	17.4	3.4	1.9	78.4	1.5***
6/98 - 6/99	16.3	19.7	15.6	17.4	3.4	1.8	89.4	1.6***
7/98 - 7/99	16.5	19.8	15.7	17.5	3.3	1.8	85.6	1.5***
8/98 - 8/99	16.8	19.9	15.9	17.6	3.1	1.7	84.1	1.4***
9/98 - 9/99	16.9	19.9	16.1	17.6	3.0	1.5	102.0	1.5***
10/98 - 10/99	17.1	19.8	16.4	17.4	2.7	1.0	165.0	1.7***
11/98 - 11/99	17.3	19.7	16.5	17.3	2.3	0.8	192.5	1.5***
12/98 - 12/99	17.6	19.5	16.6	17.3	1.9	0.7	177.1	1.2***
Lexington								
4/98 - 4/99	15.7	18.6	15.1	17.1	2.9	2.0	46.7	0.9***
5/98 - 5/99	15.9	19.0	15.2	17.2	3.0	2.0	53.5	1.1***
6/98 - 6/99	16.0	19.2	15.4	17.2	3.1	1.9	66.2	1.2***
7/98 - 7/99	16.1	19.4	15.5	17.3	3.3	1.8	83.4	1.5***
8/98 - 8/99	16.3	19.5	15.6	17.3	3.2	1.7	94.5	1.6***
9/98 - 9/99	16.5	19.7	15.8	17.2	3.2	1.4	121.8	1.8***
10/98 - 10/99	16.7	19.8	16.0	17.2	3.2	1.2	157.3	1.9***
11/98 - 11/99	16.9	19.7	16.2	17.2	2.8	1.0	187.7	1.9***
12/98 - 12/99	17.0	19.7	16.3	17.1	2.7	0.8	234.6	1.9***

Exhibit D.3, continued
Impact of Demonstration
Percent Medicaid Buy-in Enrolled Among Letter Eligible by Month

	Demonstration Area		Adjusted Select Comparison Area		Demonstration Area	Adjusted Select Comparison Area	DID	DID
	Pre	Post	Pre	Post	Percentage Point Change	Percentage Point Change	Percent Change	Percentage Points
Miami								
4/98 – 4/99	33.1	36.4	31.1	34.2	3.3	3.2	5.6	0.2***
5/98 - 5/99	33.4	37.2	31.4	34.6	3.8	3.2	20.3	0.6***
6/98 - 6/99	33.7	38.1	31.6	34.7	4.5	3.0	47.8	1.4***
7/98 - 7/99	34.0	38.6	32.0	34.8	4.6	2.8	63.6	1.8***
8/98 - 8/99	34.2	39.1	32.3	34.8	4.9	2.5	93.9	2.3***
9/98 - 9/99	34.4	39.2	32.4	34.7	4.8	2.3	105.5	2.4***
10/98 - 10/99	34.7	39.2	32.7	34.7	4.5	2.1	118.8	2.5***
11/98 - 11/99	35.0	39.2	32.9	34.6	4.2	1.7	147.2	2.5***
12/98 - 12/99	35.1	39.1	33.1	34.5	4.0	1.4	183.9	2.6***
Orlando								
4/98 - 4/99	12.3	13.9	11.9	14.1	1.6	2.2	-29.8	-0.7***
5/98 - 5/99	12.5	14.4	12.1	14.3	2.0	2.3	-13.7	-0.3***
6/98 - 6/99	12.6	14.8	12.2	14.4	2.2	2.1	3.5	0.1***
7/98 - 7/99	12.7	15.0	12.4	14.4	2.3	1.9	18.8	0.4***
8/98 - 8/99	12.9	15.2	12.7	14.4	2.4	1.7	40.0	0.7***
9/98 - 9/99	13.0	15.3	12.8	14.3	2.3	1.5	52.4	0.8***
10/98 - 10/99	13.1	15.4	13.0	14.2	2.3	1.2	86.7	1.1***
11/98 - 11/99	13.2	15.2	13.2	14.1	2.1	1.0	114.5	1.1***
12/98 - 12/99	13.3	15.1	13.4	14.0	1.8	0.7	176.6	1.2***

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Source: The Lewin Group analysis of matched Master Beneficiary Record, screener, and Third Party Billing Record data for individuals with Title II income less than 135 percent of the poverty guidelines and Medicare Part A.

Exhibit D.4
Impact of Demonstration
Percent Medicaid Buy-in Enrolled Among Letter Eligible by Month

San Francisco No Letter Group

	Demonstration Area		Adjusted Select Comparison Area		Demonstration Area	Adjusted Select Comparison Area	DID	DID
	Pre	Post	Pre	Post	Percentage Point Change	Percentage Point Change	Percent Change	Percentage Points
4/99-4/00	28.4	31.0	24.1	26.2	2.6	2.0	28.7	0.6
5/99-5/00	28.6	31.2	24.2	26.3	2.6	2.0	30.7	0.6
6/99-6/00	28.8	31.3	24.3	26.2	2.5	1.9	30.4	0.6
7/99-7/00	29.0	31.5	24.4	26.4	2.5	2.0	25.2	0.5
8/99-8/00	29.3	31.7	24.6	26.3	2.4	1.7	39.4	0.7
9/99-9/00	29.7	31.8	24.7	26.2	2.2	1.5	45.2	0.7
10/99-10/00	29.9	31.8	25.0	26.1	1.9	1.1	75.0	0.8
11/99-11/00	30.2	31.7	25.1	26.0	1.5	0.8	81.1	0.7
12/99-12/00	30.2	31.5	25.3	26.0	1.2	0.7	86.3	0.6