The Impact of Information and Assistance on Enrollment in Public Benefits Among Elderly Individuals Eligible for SNAP: A Randomized Evaluation

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Abstract

This is an analysis plan – pre-specifying our approach and main analyses – for a randomized evaluation of interventions designed to encourage enrollment of eligible, elderly individuals in the Supplemental Nutrition Assistance Program (SNAP). It is being conducted in partnership with Benefits Data Trust (BDT), a national non-profit organization based in Philadelphia. The study investigates barriers to enrollment (such as information, transaction costs and stigma), and the characteristics of the marginal enrollee who responds to a reduction in these barriers.

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1. Introduction

This project is a randomized evaluation of various interventions designed to encourage enrollment of eligible, elderly individuals in the Supplemental Nutrition Assistance Program (SNAP). It is being conducted in partnership with Benefits Data Trust (BDT), a national non-profit organization based in Philadelphia. The study is designed to investigate (1) the barriers to enrollment (such as information, transaction costs and stigma), and (2) the characteristics of the marginal enrollee who responds to a reduction in these barriers.

More specifically, this randomized trial investigates the impact of BDT's outreach and application assistance to individuals aged 60 and over who are likely to be eligible for the Supplemental Nutrition Assistance Program (SNAP). Through random assignment to receive BDT's outreach and assistance, outreach only, or to control, we plan to study the impact of outreach and application assistance on attempts to enroll and enrollments, as well as the characteristics of the marginal individual who responds to the intervention. The **primary outcome** will be SNAP enrollment nine months after outreach; **secondary outcomes** will be: intermediate steps toward enrollment (calls in response to outreach and applications submitted), dollar amounts of benefits received and deductions listed (since benefit amounts increase with better documentation of certain household expenses), and SNAP enrollment with alternative time horizons (including recertification attempts and results). Secondary outcomes also include baseline characteristics (including, e.g., demographics, measures of economic well-being, and measures of health) of marginal responders, applicants and enrollees.

This document details our analysis plan. It serves as a record of planned analyses at the start of the experiment. It is being archived 11 weeks after the 19-week intervention launched on January 6 2016, but before any data on applications or enrollment have been collected; data have been collected on calls in response to the initial batches of letters to ensure the trail is being carried out as intended. As we describe below, there are analysis details yet-to-be determined (such as which baseline characteristics we will be able to collect on individuals). We also expect new hypotheses to emerge based on initial findings, which we do not describe in this analysis plan.

The structure of the plan is as follows: Section 2 briefly describes our experiment and provides background information on the Supplemental Nutrition Assistance Program (SNAP); Section 3 reviews the related literature and highlights the innovations this experiment offers; Section 4 presents our study design; Section 5 provides details on the trial itself; Section 6 describes data sources and elements; Section 7 presents our main empirical models; Section 8 reports results from power calculations; and Section 9 concludes with some caveats and interpretation issues.

2. Intervention

2.1. Overview

Enrollment in U.S. social safety programs is not automatic: individuals must apply and demonstrate eligibility. Often, eligibility rules are complicated, application forms long, and documentation requirements substantial. Low take-up is a pervasive feature of many social

safety programs, including unemployment insurance (UI), cash welfare (TANF), refundable tax credits (EITC), and the Supplemental Nutrition Assistance Program (SNAP). (Currie, 2004)

We develop and implement a randomized evaluation to investigate two questions related to low take-up. First, it will investigate the roles of the main hypothesized barriers to take-up: information (about eligibility and how to apply), transaction costs of applying, and stigma. Second, it will investigate a critical but little-studied question in public finance and behavioral economics: who are the marginal enrollees deterred from applying or enrolling by these barriers? There are frequent proposals to simplify application processes for social safety programs and to reduce the "hassle costs" (or "ordeals") to potential beneficiaries in an effort to increase take-up among eligible individuals in general, and for SNAP in particular (Aaronson, 2011)[1]. However, the targeting properties of such interventions are theoretically ambiguous. A rich tradition in "neoclassical" economics has advanced the theoretical argument that such "ordeals" may in fact be desirable as an efficient way of screening out the lowest-need eligible individuals whom ideally would not be the recipient of the (limited) public funds available (Nichols and Zeckhauser, 1982). By contrast, the newer "behavioral" economics literature has conjectured that these "ordeals" screen out precisely the highest-need eligible individuals who are the intended beneficiaries of the program (Bertrand et al., 2004; Mani et al., 2013; Mullainathan and Shafir, 2013).

We will investigate these questions empirically in the context of the take-up decisions of elderly individuals for SNAP, colloquially referred to as "food stamps." As the only benefit that is virtually universally provided to low-income individuals, SNAP is one of the most important social safety net programs in the United States. During the Great Recession, as many as one in seven individuals received SNAP (Ganong and Liebman, 2013). Public expenditures for SNAP in 2011 were $80 billion, compared to $50 billion for the EITC, $50 billion for Supplemental Security Income (SSI), and $33 billion for TANF (U.S. Congressional Budget Office, 2013; U.S. Department of Health and Human Services, 2012), responding more quickly than other safety net programs to financial hardship (Moffitt, 2012).

Children, adults, and elderly all may receive SNAP benefits. Take-up of SNAP is particularly low among the elderly; in 2012, only 42% of eligible elderly enrolled in SNAP compared to 83% overall (Cunnyngham, 2010; Eslami, 2014). Elderly take-up rates in Pennsylvania are close (within 2 percentage points) to take-up among the national elderly population (Cunnyngham, 2010).

This project involves a partnership with Benefits Data Trust (BDT) – a national non-profit

[1] In the specific context of SNAP, see for example New York City Mayor Bill de Blasio's attempt to enroll more eligible New Yorkers in SNAP through an enrollment campaign that contacts Medicare recipients and improves online services (Hu, 2014). Likewise, the state of Texas has tried to simplify the application process for SNAP (Aaronson, 2011). And at the federal level, in 2009 Congress provided funds to study various models for facilitating access to SNAP among the elderly (Kauff et al., 2014).

organization that helps individuals enroll in public benefits – to conduct a randomized evaluation of 31,888 elderly (ages 60 and older) Pennsylvania residents who are identified as not enrolled in SNAP yet likely eligible for it. They are evenly randomized into one of three groups:

- "**High touch" (HT):** Will receive BDT's standard SNAP enrollment-assistance which aims to boost take-up through two key steps: (1) proactively increasing awareness of eligibility and the opportunity to apply and (2) reducing the transaction costs of applying.[2]
- **"Low touch" (LT):** The LT group will receive a cheaper, lower-touch intervention designed to mimic BDT's approach of proactively increasing awareness about eligibility and the opportunity to apply, but which does not provide BDT's direct assistance with the application process.
- **Control (status quo):** No intervention.

Within the HT and LT arms, individuals are randomized into several variants described in more detail below.

2.2. SNAP background

In Pennsylvania, there are three ways elderly households can qualify for SNAP. First, the household is categorically eligible if all household members already receive or are authorized to receive SSI, TANF, General Assistance, State Blind Pension, or Family Works benefits.

Second, an elderly household can be eligible under Pennsylvania's "expanded categorical eligibility" if it meets gross income limits. The gross income cap is set at 200% of the Federal Poverty Income Guidelines (FPIG) for elderly households (a higher limit than for non-elderly households) (Pennsylvania Department of Human Services, 2015)[3]

Third, an elderly household with gross income over 200% of the FPIG may still be eligible if its net income (gross household income minus certain exempt income sources and income deductions for certain expenses)[4] is below 100% of the FPIG. While Pennsylvania eliminated the resource test for most households in April 2015, the resource test remains in place for elderly households with gross income above 200% of the FPIG. The resource test mirrors federal limits (e.g. $3,250 limit for elderly households) (Center on Budget and Policy Priorities, 2015; Pennsylvania Department of Human Services, 2015). Resources counted toward the limit include bank accounts, cash on hand, cars and motorcycles beyond the first vehicle (Pennsylvania Department of Human Services, 2015). Many other resources are not counted, such as one's home, most retirement plans, or any resources owned by individuals receiving SSI or TANF (U.S. Department of Agriculture: Food and Nutrition Service, 2015).

[2] This intervention has never been tested by a randomized evaluation. However, a recent observational study by Mathematica of six different SNAP outreach and enrollment methodologies nationwide concluded that the BDT intervention achieved the lowest cost per enrollment of any of the methods studied (Kauff et al., 2014).

[3] A one- or two-person household who is categorically or expanded categorically eligible but has net income equal to or above 100% FPIG qualifies for the minimum $16 benefit. A household of three or more individuals who is similarly eligible qualifies for $0 per month in benefits.

[4] Net household income is gross household income minus certain exempt income sources and income deductions for certain expenses. Appendix A1 provides more detail on exemptions and deductions.

SNAP benefits are an increasing function of net income subject to a minimum and a maximum based on household size. Benefit amounts are federally determined, and calculated the same way for all eligible groups and across all U.S. states. They are designed to have households spend approximately 30% of their net income (i.e. gross income minus deductions and exemptions) on food, with SNAP benefits providing the difference between that amount and the maximum benefit amount.[5]

2.3 Benefits Data Trust

BDT is a national not-for-profit organization based in Philadelphia committed to transforming how individuals in need access public benefits. BDT currently operates benefits centers in five states – Pennsylvania, Maryland, Colorado, South Carolina, and New York. In its effort to create a benefits access system that is simple, comprehensive, and cost-effective, BDT partners with federal, state, and local government agencies, corporations, national organizations and community-based agencies to decrease barriers and increase access to public benefits and services. It strives to be a "one-stop shop" for benefits access, screening individuals for a variety of benefits at once, and providing application assistance and intensive follow up. Since its inception in 2005, BDT has submitted over 500,000 benefit applications on behalf of people in need, resulting in approximately $5 billion in benefits delivered to low-income individuals and families. (Benefits Data Trust, 2015)

Through existing data share agreements with the Pennsylvania Department of Human Services and other state agencies, BDT receives application and enrollment data for a variety of public benefits, including SNAP, Medicaid, and the Low Income Home Energy Assistance Program (LIHEAP). For this study, Medicaid enrollment data is used to identify elderly individuals, ages 60 years or older. These individuals are likely eligible for SNAP (since Medicaid tends to have income criteria similar to that of SNAP) but are not currently enrolled (based on SNAP enrollment data). The initial "Medicaid outreach list" examined in this study consists of 31,888 Pennsylvanian households outside of Philadelphia. We restrict outreach to households outside of Philadelphia since BDT has already conducted outreach to many households in Philadelphia, increasing the risk of potential spillovers across study groups. Further details on our study population are provided below.

3. Related Literature

3.1. Determinants of low take-up

A well-documented feature of social transfer programs to the economically and socially

[5] Benefit amounts are determined by the following formula:

1. Calculate the household's net income.
2. Take 30% of the household's net income and subtract this amount from the Thrifty Food Plan allotment set by the Food and Nutrition Service at U.S.D.A. for a household of that particular size. Round the remainder up to the nearest whole dollar. This is the monthly amount of SNAP benefits that will be issued to the household during its period of eligibility.
3. For one or two-person households, the minimum benefit is $16 per month. The maximum benefit for a one person household is $194 a month, and the maximum for a two-person household is $357 per month.

disadvantaged is that many eligible individuals do not enroll in ("take up") benefits. Currie (2004) provides a useful overview of take-up rates across a large number of means-tested programs and non-means-tested programs. Take-up rates for means-tested programs vary from very low (10-20% for State Children's Health Insurance Program in the late 1990s) to relatively high (e.g., 82 to 87 percent for the Earned Income Tax Credit and 60 to 90 percent for TANF). There is also substantial variation across eligible groups within programs (such as much lower take-up rates for SNAP among the elderly).

There are three main explanations for low take-up typically offered by the literature: lack of knowledge about eligibility, transaction costs associated with enrollment, and stigma associated with participation, although of course there may be interactions and overlaps between these three classes of explanations. Currie (2004), noting the dearth of empirical evidence on the determinants of low take-up, summarizes her review of take-up by suggesting, "In an era of social experiments, it might also prove useful to consider experimental manipulations of factors thought to influence take-up." Our research will follow this suggestion by directly investigating the first two potential barriers: information about eligibility and transaction costs to enrollment.[6] Some of our treatments will also provide insight on whether stigma is malleable and can be substantially reduced by changes in language and presentation.

Apart from this project, we know of only two large-scale experimental studies of take-up of public benefits in the U.S: Bettinger et al. (2012) and Bhargava and Manoli (2015).[7] Our contrast between the "high touch," "low touch" and "control" arms is similar in spirit to Bettinger et al.'s study of the impact of no intervention compared to an information only intervention compared to an "information plus assistance" intervention. Their context is the impact of information to low income individuals on financial aid and assistance with filing the Free Application for Federal Student Aid (FAFSA); they find that information bundled with application assistance was effective at increasing aid receipt, college attendance one year later, and college attendance three years later; information alone was not effective.[8] Bhargava and Manoli (2015) study the impact of informational mailings on EITC claiming, interpreting their results as evidence of important informational barriers to take up.[9] One distinguishing feature of our design is that, unlike these

[6] In general, the literature has not focused on stigma. Currie (2004) suggests that stigma is unlikely to be the main barrier to take-up in general, and Currie (2003) suggests that stigma is not an important factor for SNAP take-up. Bhargava and Manoli (2015) find no evidence that attempts to reduce stigma increase take-up of the EITC.

[7] Daponte (1999) conduced an early and innovative small randomized trial designed to inform non-participating, eligible households about their eligibility in SNAP. However, issues of small sample size (196 households were included) as well as attrition make definitive conclusions difficult.

[8] Specifically, they randomize approximately 17,000 low-income individuals receiving tax preparation services who have a family member between the ages of 15 and 30 who does not have a bachelor's degree into three groups: one that receives application assistance and information on potential aid packages compared to tuition costs at nearby colleges, one that receives just information, and a status quo control. Our "high touch" relative to "low touch" intervention may similarly explore the efficacy of information alone relative to information combined with assistance.

[9] Specifically, they conducted a randomized experiment of the impact of modifying the information content and complexity of an IRS tax mailing to 35,000 tax filers in California who failed to claims their EITC (a negative

prior studies, we will observe not only the "downstream" take-up outcome but intermediate measures of attempts to take up (specifically: calls and applications), which will provide greater information on whether and how enrollment attempts falter.

In our specific context of SNAP, Currie (2003) presents survey evidence consistent with both lack of awareness and transaction costs contributing to low take-up. She finds that three-quarters of eligible, non-participating households report that they were not aware of their eligibility. She also estimates that the average SNAP application takes 5 hours to complete and includes at least two trips to a SNAP office. Our HT intervention investigates the impact of information about eligibility combined with assistance with the application process that reduces such transaction costs.

3.2. How does the marginal person induced to take up compare to the average person enrolled in the program?

The government typically has imperfect information about the underlying characteristics of its population. A central question in public finance is how to target redistribution to individuals to whom the social planner would like to transfer resources, while minimizing costly transfers and distorted behavior for unintended recipients. Viewed from this perspective, a key question is the "unobservable" characteristics of the marginal person induced to take up benefits by some intervention.

Economic analysis of this problem begins by assuming that individuals have some latent unobserved characteristic (often referred to by the shorthand "ability" or "need"). The social planner wants to redistribute to all those above some "need" threshold. The fundamental problem is that "need" is not observed, and proxies for it – such as income – are both imperfect measures of underlying "need" and potentially manipulated (e.g., by reducing work effort). In this context, neoclassical theory has emphasized the potential efficiency-enhancing role of "ordeals" or "transaction costs" in serving to encourage lower-need individuals to choose not to apply for the transfer program (see, e.g., Besley and Coate, 1992; Nichols and Zeckhauser, 1982; Nichols et al., 1971). The optimal design of transfer programs may – somewhat counter-intuitively – involve "ordeals" or other sacrifices of production efficiency, such as tedious administrative procedures or stigma. The key idea is that while all individuals incur utility costs from such ordeals, if the relative utility cost is higher for lower-need individuals, the ordeal will disproportionately deter lower-need individuals from the program, and thus allow the social planner to transfer more to the higher-need individuals who do participate. This is commonly referred to as a sacrifice in productive efficiency in order to increase targeting efficiency.

Time-based ordeals – such as filling out applications, gathering documents, and traveling to the program office – are the canonical example of such potentially efficient "ordeals." There are a

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income tax benefit program), despite presumed eligibility and the receipt of an initial reminder notice. They find that reminder notices and reduced complexity of the application form both increase take-up. Our "low-touch" intervention arm will similarly explore the impact of information about eligibility on take-up.

variety of conjectured mechanisms through which time-based transaction costs may be more likely to deter lower-need individuals. For example, in a recent paper, Alatas et al. (2014) develop an information-based model in which time-based ordeals will screen out the lower-need individuals. In their framework, each individual knows his "need" perfectly, but has a noisy signal of whether he will pass the program's eligibility test (which is a function of characteristics the government can observe, such as income, and is itself a noisy signal of "need"). Lower-need individuals know they have less chance of passing and so, as the cost of applying increases, they are more likely to drop out on the margin.

In contrast to this neoclassical view, recent work in behavioral economics has made exactly the opposite argument, conjecturing that ordeals disproportionately deter the higher-need individuals. For example, Bertrand et al. (2004) conjecture that the hassles associated with applying for food stamps – such as applications which can reach up to 36 pages in length and include incomprehensible questions – may disproportionately deter the highest need individuals. There is some evidence that poverty, itself, impedes one's cognitive "bandwidth" (Mani et al., 2013; Mullainathan and Shafir, 2013), suggesting that programs that include transaction costs might disproportionately deter highest need individuals. Mullainathan et al. (2013a) write: "filling out long forms, preparing for a lengthy interview, deciphering new rules, or responding to complex incentives all consume (limited) cognitive resources."

When theory is ambiguous, one naturally turns to the empirical evidence. A motivating force behind our proposal is the dearth of empirical evidence on the question of whether interventions to reduce the costs of applying tend on the margin to induce higher or lower "need" individuals into the program. Neither of the two take-up experiments described above – Bettinger et al. (2012) or Bhargava and Manoli (2015) – systematically explore the impact of the interventions on the marginal characteristics of those affects.[10] The only experimental evidence we know of is from a randomized controlled trial across Indonesia villages which investigates the impact of transaction costs on enrollment in a large conditional cash transfer program (Alatas et al. 2014). They find that relative to the government screening everyone and automatically enrolling those that they deem eligible, requiring individuals to apply ("self-targeting") disproportionately screens out the lower-need individuals.

To our knowledge, there are no quasi-experimental studies investigating heterogeneity in the impact of interventions to improve take-up across different types of individuals. One reason may

[10] Bettinger et al. (2012) do disaggregate treatment effects by whether the individual was (a) a parent of a recently graduated high school student, (b) had no post-secondary education, (c) had some post-secondary education. While assistance and information increased the probability of filing a FAFSA for all groups, only those with no prior college and those with dependent children displayed significant increases in college attendance, aid receipt, and measures of persistence. Bhargava and Manoli (2015) perform some heterogeneity analysis that suggests that simplification disproportionately helps low earners and women.

be the relative paucity of widespread programs found to increase take-up. For example, research has found relatively little effect of electronic benefit cards in increasing take-up of SNAP (Currie and Grogger, 2001), or electronic benefit application in increasing take-up of Unemployment Insurance (Ebenstein and Stange, 2010), which naturally makes it hard to investigate heterogeneity in impact across different types.

4. Study Design

4.1. Overview

This intervention provides varying intensities of information and application assistance to elderly enrolled in Medicaid who are likely eligible for SNAP. In particular, there are two treatment groups: a low-touch group, which provides only information about eligibility, and a high-touch group, which provides information about eligibility and over-the-phone application assistance through BDT. Within the LT and HT groups, additional variation in the presentation and frequency of information about eligibility is introduced, resulting in four low-touch treatment groups, and two high-touch treatment groups. All study materials, including letters, postcards, and envelopes, were approved by BDT and the Department of Human Services (DHS) before the study was launched. MIT's Institutional review board (IRB) has approved this research (Protocol: 1506106206; FWA: 00004881), and the IRBs of Northwestern University and NBER have also approved (via ceding to MIT's IRB). Replicas of the letters and postcards mailed are shown in Section A2 of the Appendix.

As described in Section 8, we have sufficient power to detect reasonable effect sizes (e.g. 1.8 percentage point increase in SNAP enrollment) when comparing any two treatment groups containing approximately 2,500 individuals. Using this as a lower bound of treatment group size, we evenly split the LT sample into four separate treatment groups (of approximately 2,650 individuals each), and the high-touch group into a "standard" group consisting of approximately 8,000 individuals that receive standard outreach materials from BDT, and a group of approximately 2,650 individuals that receive "marketing" materials.

4.2 High Touch Intervention

4.2.1 Standard High Touch Intervention

BDT conducts a series of outreach services to inform these individuals of their eligibility, and assist them in applying for benefits. We refer to BDT's standard services as our "High Touch" (HT) intervention. The HT intervention does several things to increase SNAP benefit receipt: (1) informs individuals of likely eligibility and likely benefit levels, (2) leverages state policy options and technology to inform individuals of reduced verification requirements, such as self-declaration of shelter expenses and electronic review of Social Security income, identity, residency, and certain medical expenses, (3) provides assistance with the application process (including filling in the application and submitting it on their behalf, advising them of what documents they need to submit and offering to review and submit documents on their behalf, and assisting with post-submission requests or questions regarding the application) and (4) tries to

ensure that individuals receive the maximum benefit for which they are eligible by collecting detailed information on income and expenses (potential deductions).

BDT reaches out to likely eligible households though letters and follows up with a postcard after 8 weeks if the household does not call BDT. Letters and postcards inform individuals that they may be eligible for SNAP and encourage them to call BDT for assistance with the application. These materials are written in simple, clear language for a 4th to 6th grade reading level, and are sent from a trusted source – the Secretary of the Pennsylvania Department of Human Services.

An individual who responds by calling into BDT is connected to a BDT employee –a "Benefits Outreach Specialist" (BOS). Benefits Outreach Specialists (BOS), who provide application assistance over the phone, are highly knowledgeable of available benefits. They receive 4 weeks of classroom and experiential learning to become well-versed in the public benefits application process and policies. During their extensive training, Benefits Outreach Specialists also hone their phone-based assistance skills to offer a person-centered and results-driven experience for BDT's client. BOS also "take part in continuous quality improvement training through role playing, supported on-phone training, and quality enhancement coaching" and have access in real-time to a searchable history of information on the client from previous interactions and administrative data sources and to benefits screening tools through PRISM (Benefits Data Trust, 2016).

PRISM is BDT's internal software platform that stores administrative data, such as name and address, provided by state sources in a household's "portfolio" and allows for the collection of additional self-reported information for each individual linked to the portfolio. In Pennsylvania, BDT regularly receives administrative data for individuals enrolled in Medicaid, LIHEAP, PACE, and who have exhausted unemployment compensation benefits. BDT's analytics team is able to link these data to the PRISM record of callers from our study population (if they appeared in these data). PRISM provides a clickable interface through which BOS can access notes on previous calls, question prompts to determine eligibility, an estimated benefits calculator, and a platform for scheduling follow-up actions. BDT customizes question prompts and the benefit calculator to each state's benefit regulations, to ensure that all of the necessary information is collected to estimate eligibility and benefits amounts. This software also allows for direct submission of the application and related verification documents.

Upon being connected to a caller, the BOS asks a series of intake questions designed to collect information relevant for benefit screening (e.g., monthly income estimates, number of people in the household, citizenship status, current enrollment in a public benefit program). Information collected include demographic characteristics (sex, ethnicity, disability, etc.), legal information (citizenship, marital status, etc.), self-reported income (including pension) and other financial resources when necessary (e.g., checking and savings account balances), and expenses by category (rent, utility bills, medical expenses, etc.). Collection of detailed information on expenses may increase the amount of benefits the individual is likely eligible for by increasing

their allowable deductions. BDT's custom screening tool takes into account the benefit rules and based on the self-reported information collected, allows the BOS to inform potential applicants whether they are likely eligible for SNAP and their estimated benefit amount.

BDT simplifies the application process by completing the application over the telephone, mailing an envelope to recipients to collect verification documents, reviewing the verification documents, and for individuals who provide their consent and telephonic signature, submitting the application electronically to DHS on their behalf.[11] Leveraging state policy options and technology, BDT also minimizes paper verification requirements by proactively informing individuals that they can self-declare shelter expenses (unless questionable) and DHS can electronically verify Social Security income, identity, residency, and certain medical expenses. BDT may also provide assistance after the application is submitted by reviewing and submitting any follow-up verification documentation requested by DHS, or working with DHS to troubleshoot issues with individual cases.

PRISM also stores digital records of all received documents in an individual's record, including those submitted to DHS, which allows BDT to keep a detailed history of all application information and to advise applicants on how to advocate for themselves if there are issues with their application. For example, DHS may request a document that has already been provided or that is not necessary. In addition, some applicants miss their interview, or fail to receive an interview call, but still wish to apply. These incidences delay the application process, or even worse, can result in DHS rejecting an application. If contacted by a client about such an issue, BDT advises on how to navigate DHS customer services, and as a last resort, may elevate these issues to their point of contact at DHS to find a solution.

4.2.2 "Marketing" High Touch Intervention

"Standard" letters and postcards present information in a way that is "standard" for most of BDT's current outreach. As shown in the Appendix, these materials inform individuals that they "may qualify for help paying for groceries", state that "we want to help you apply", and are signed by the Secretary of Pennsylvania DHS, Ted Dallas.

With BDT's permission and oversight, we designed a variant of the Standard HT letter and postcard that we refer to as the "Marketing" Intervention. The "Marketing" letters and postcards are modified to attract clients using a "marketing" approach, borrowing language and graphics from credit card solicitations. In particular, they include a banner that reads "Need help buying groceries? Apply today!" They are also printed in color rather than black and white, do not

[11] If the caller does not consent to receive direct application assistance, BDT provides a more detailed description of the steps over the phone so that the caller may apply on their own. Approximately 75% of eligible callers consent to receive direct assistance, based on statistics from SNAP outreach to a Medicaid list of individuals 60 years or older in Maryland.

explicitly define SNAP, and include a PA benefits "ACCESS" card image.[12] In Appendix A4, we describe the approach we took to designing the "Marketing" intervention, and highlight what we see as the key changes we made relative to the standard study materials.

4.3 Low Touch Intervention

The LT interventions involve mailing highly similar outreach materials as in the HT intervention. However, rather than directing the individuals to contact BDT for more information on how to apply or help with their application, they are instructed to contact DHS. (As described in more detail below, the calls to DHS are routed first through a call forwarding center we contracted with, so that we can track which applicants called in).

Like the HT intervention, the LT intervention contains both a "standard" and "marketing" variant. Because these letters did not mention BDT by name, we had additional flexibility to alter outreach materials – subject to BDT, DHS and MIT IRB approval. Therefore the LT intervention includes, beyond the "standard" and "marketing" variants, two additional variants:

(1) A version with no follow-up postcard sent.
(2) A differently designed letter and postcard which we refer to as the "framing" intervention. "Framing" letters and postcards differ from standard LT letters and postcards only in the way they describe expected SNAP benefit amounts. While the standard letter indicates that "Thousands of older Pennsylvanians already get an average of $119 a month" and "It could save you hundreds of dollars each year", the framing letter states "Thousands of older Pennsylvanians already get up to $200 a month" and "It could save you thousands of dollars each year." Both are factually accurate statements: the only difference is the framing of the amount, potentially affecting expected benefit amounts.

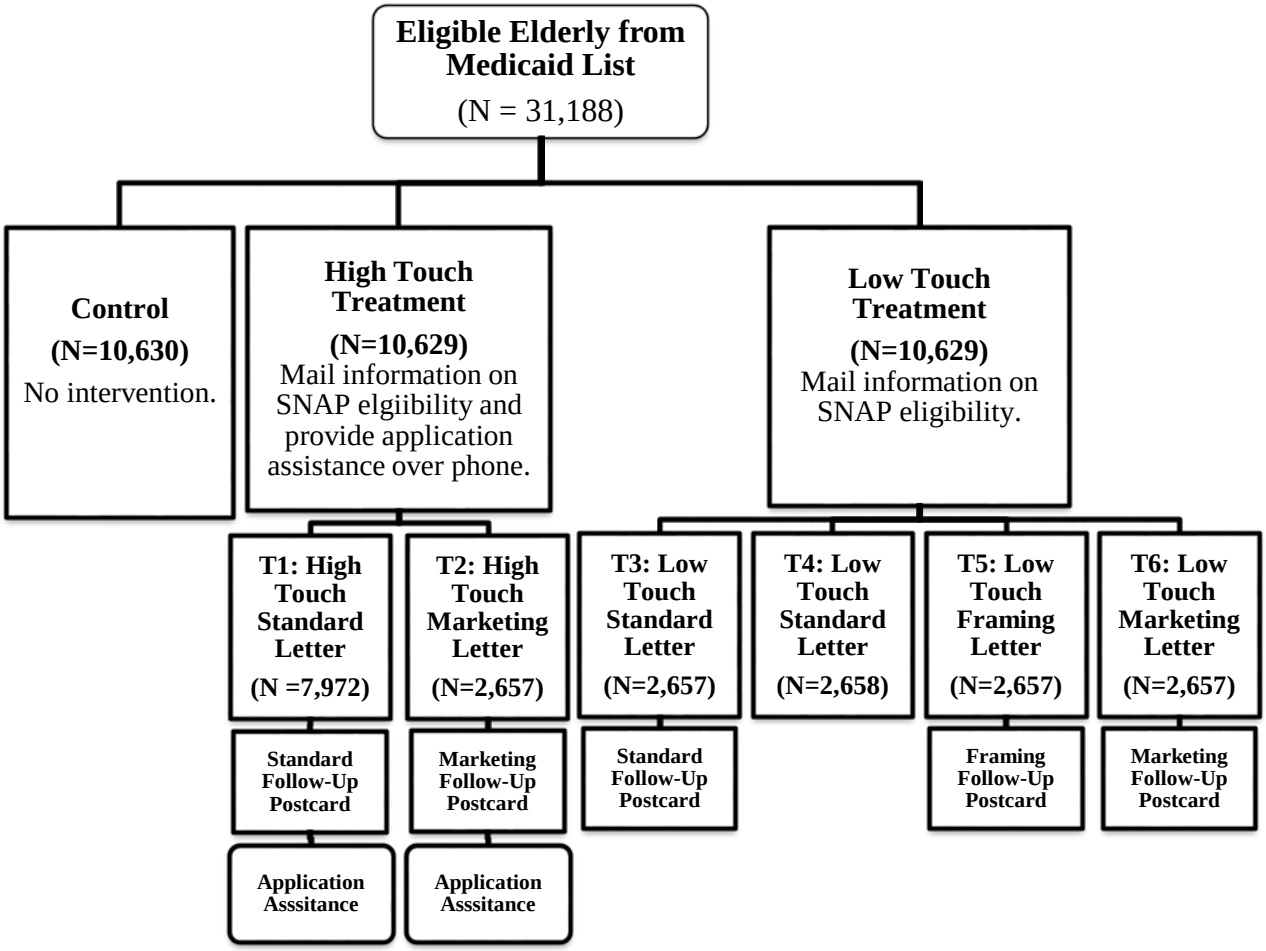
4.4. Intervention Design

4.4.1. Overview

We randomize individuals into one of seven study groups as shown in Figure 1.

[12] Because of privacy concerns, envelopes could not publicly note the recipients' possible eligibility for SNAP. The "marketing" letter was therefore sent using the same, "standard" envelope as the standard intervention.

Figure 1. Study Design



Control

This group serves as a comparison group, providing information on the counterfactual world of no treatment.

High Touch

Treatment 1: Standard

This group receives the standard letter from BDT and their standard follow-up postcard, mailed eight weeks after the initial mailing (if the individual has not replied).

Treatment 2: Marketing

This group receives a marketing letter from BDT and a marketing follow-up postcard, mailed eight weeks after the initial mailing (if the individual has not replied). Relative to the HT standard materials, this letter and postcard include language in the style of credit card solicitations; we include a banner that reads “Need help buying groceries? Apply today!” and bolded conversational text, such as, “We look out for you – it’s a simpler process.” These

materials are also printed in color rather than black and white, do not explicitly define SNAP, and include a PA benefits "ACCESS" card image in the right corner.

Low Touch

Treatment 3: Standard

This group receives the same standard letter and postcard as standard HT materials, except for a few minor, unavoidable differences described below (and the potentially important difference that instead of offering BDT's (i.e. "PA Benefits Center's") assistance, the individual is encouraged to contact DHS). A standard follow-up postcard is mailed eight weeks after the initial mailing if the individual has not replied.

Treatment 4: Standard without Postcard

This group receives the same standard letter as in the Standard LT intervention; however this group is not mailed a follow-up postcard.

Treatment 5: Framing

This group receives a modified version of the LT standard letter and postcard designed to make the expected benefit amounts appear larger. A "Framing" follow-up postcard is mailed eight weeks after the initial mailing if the individual has not replied.

Treatment 6: Marketing

This group receives a modified version of the LT standard letter or, equivalently, a modified version of the HT marketing letter. Relative to the HT marketing letter, the LT marketing letter is identical except that the PA Benefit Center is not mentioned, different phone numbers are provided in lieu of BDT's information, and the hours of operation are 8:45 am – 4:45 pm rather than 9:00 am – 5:00 pm. A marketing follow-up postcard is mailed eight weeks after the initial mailing if the individual has not replied.

4.4.2. Planned Comparisons

We plan to compare each individual treatment arm to the control. In addition, we plan to conduct the following comparisons:

A. **HT (Both versions) vs. Control**
B. **LT (All versions) vs. Control**
C. **HT (Standard +Marketing) vs. LT (Standard + Marketing)**
D. **Marketing (HT and LT) vs. Standard (HT and LT)**
E. **LT Standard w/o Postcard vs. LT Standard**
F. **LT Framing vs. LT Standard**

A. **HT (Both versions) vs. Control.** A comparison of HT (both versions) to control provides evidence on the overall effect of information plus assistance.

B. **LT (All versions) vs. Control.** A comparison of LT (all versions) to control provides evidence on the overall effect of information alone.

C. **HT (Standard + Marketing) vs. LT (Standard + Marketing).** To compare the relative effect of information plus assistance to information alone, we limit the LT versions to the two variants that are comparable to both HT variants (Standard and Marketing). Ideally we could interpret the comparison of HT (Standard + Marketing) to LT (Standard + Marketing) as the marginal impact of assistance on top of information.

In practice, several unavoidable differences between HT Standard and Marketing (T1 and T2) and LT Standard and Marketing (T3 and T6) may complicate interpretation:

1. **Benefits Center:** HT letters and postcards reference the PA Benefits Center (BDT) while LT letter does not. On the letters, this is:
    a. HT (T1): "We are working closely with the PA Benefits Center to help you get SNAP" and "Please call the PA Benefits Center today."
    b. LT (T3): "We want to help you get SNAP" and "Please call the Department of Human Services today."
2. **Logo:** As in 1, the PA Benefits Center logo is included in HT Standard (T1) but not in LT Standard (T3).
3. **Hours of operation:** HT letters and postcards list hours of operation as "9:00 AM – 5:00 PM", while LT letters and postcards list these as "8:45 AM – 4:45 PM". The different hour range for LT was determined by the Department of Human Services' HELPLINE hours of operation.
4. **Phone Numbers:** HT letters and postcards have the same (BDT) phone number for both arms, while LT arms (T3 – T6) each have different phone numbers on their respective letters and postcards (although all materials only contain "1-800" numbers).
5. **Envelopes:**
    a. LT and HT envelopes list different P.O. boxes.
    b. HT envelopes contain the text "PA Benefits Center", while the LT envelope does not.

One way to evaluate how comfortable we are with the interpretation of HT (standard and marketing) vs. LT (standard and marketing) as a way to isolate the effect of application assistance on application and enrollment outcomes – or whether the comparison is affected by the other differences noted above is to see if the two arms have similar rates of call in (and similar baseline characteristics of callers), assuming we can measure call ins with similar approaches in both arms (see Section 5.4). If so, we would be more comfortable interpreting the differential effects on application and enrollment as reflecting the causal effect of assistance.

D. **Marketing (HT and LT) vs. Standard (HT and LT).** The comparison of **Marketing** (HT and LT) to **Standard** (HT and LT) allows us to examine potential barriers due to stigma. The marketing letter was designed to increase appeal and reduce the "stigma" of means tested benefits by using "marketing" approaches borrowed from credit card solicitations. The test is inherently one-sided. If we find no differential effect of the marketing letters relative to the standard letters, this does not rule out many possible types of stigma effects. However, to the extent that there is a greater effect of the marketing letter, those respondents defy particular

stigma stories, such as the hypothesis that determination to not receive government assistance is deterring their take up.

E. **LT Standard w/o Postcard vs. LT Standard.** How important is limited attention to take-up? Based on the recent findings on EITC take-up (Bhargava and Manoli, 2015), we test whether an additional postcard effects response rates and enrollment. An impact of additional mailings would suggest a role for "attention" or "salience" in affecting take-up.

F. **LT Framing vs. LT Standard.** We are also interested in evaluating whether individual's beliefs about their likely benefit amount affect their decision to apply for SNAP by comparing the impact of the "standard" LT intervention to the "framing" LT intervention. While the standard letter indicates that "Thousands of older Pennsylvanians already get an average of $119 a month" and "It could save you hundreds of dollars each year", framing letters state that "Thousands of older Pennsylvanians already get up to $200 a month" and "It could save you thousands of dollars each year." Both are factually accurate statements: the only difference is the framing of the amount. We will interpret any differential impact of the framing intervention as a kind of "elasticity with respect to perceived benefit amount." We may complement this intervention with a small study/survey to try to estimate how much the "Framing" design changes the perceived benefit amount.

5. Trial details

5.1. Setting

BDT is located in Philadelphia, Pennsylvania but conducts outreach campaigns in Colorado, Maryland, Pennsylvania, South Carolina, and New York. At any given time during business hours, BDT has approximately 80 trained benefits outreach specialists available to assist individuals in applying for SNAP and other benefits.

LT study groups are given the phone number to call DHS's "HELPLINE", an automated phone line that provides individuals with information on how to apply for benefits in PA.[13] If the individual correctly navigates the automated system, they can speak to a trained DHS operative that provides information on how to apply for SNAP, or they can record their address on a DHS answering machine that promises to mail a SNAP application to the given address.

5.2. Study Population

Our study population consists of individuals ages 60 and older who are enrolled in Medicaid but not SNAP. They are considered likely eligible for SNAP based on their enrollment (and hence eligibility) for Medicaid.

The definition of the study population starts with a Medicaid Outreach list (supplied by DHS to

[13] As we discuss below, in practice the phone number sends the individual to a call-forwarding center so that we can record that the call happened (and who called) prior to forwarding them to DHS.

BDT on November 20, 2015) of 229,584 individuals ages 60 and older, as of October 31, 2015, who are enrolled in Medicaid. The file also contains a flag for whether the individual is receiving SNAP benefits (as of November 1, 2015). BDT removes individuals enrolled in SNAP, leaving 119,511 individuals enrolled in Medicaid but not SNAP. We further exclude all individuals who are enrolled in Long-Term Care Medicaid categories (N = 47,733), since individuals living in a nursing home or other "institution" that provides meals are not eligible for SNAP. We also excluded any individual to whom BDT had previously (ever) sent outreach (N=124,711), as recorded in PRISM.[14] Together, these two exclusions remove an additional 81,999 individuals. We also exclude about 3,600 individuals because they had an address in Philadelphia County.[15]

SNAP eligibility and enrollment occurs at the household level. We therefore make two final exclusions based on a "pseudo household" ID that BDT creates in which it defines individuals on the Medicaid list in the same "household" if they share a last name and address:

(1) We randomly selected one individual from each "household" to be included in our study population. This excluded 2,009 individuals.
(2) We removed 33 individuals who had another household member enrolled in SNAP.

The resulting study sample consists of 31,888 individuals. To summarize, our *inclusion criteria* are:

- Individual is enrolled in Medicaid as of November 20, 2015
- Individual is 60 years or older as of October 31, 2015
- Individual is not enrolled in Long-Term Care Medicaid categories
- Individual does not receive SNAP as of November 1, 2015 and neither does anyone with the same address and last name
- BDT had never sent outreach addressed to the individual in the past (across any campaigns for which they have data)
- Individual does not have an address located in Philadelphia (but does have an address in Pennsylvania)
- Individual is randomly selected from a BDT "pseudo household" (same last name and address).

Several comments about this sample creation are in order. First, our "pseudo household" definition may contain both false positives and false negatives.[16] Moreover, we do not have a

[14] BDT has comprehensive data on outreach efforts since 2012, and limited data on outreach back to 2007. BDT started conducting SNAP outreach in 2008. Since 2010, 28 percent of all applications filed through BDT in PA are for SNAP; 43 percent are for Pharmaceutical Assistance Contract for the Elderly (PACE) and 31 percent for the Low Income Subsidy (LIS) of Medicare Part D.

[15] Specifically, after the random selection of one individual from each household mentioned below, we exclude 3,582 individuals because they have an address in Philadelphia County.

[16] Relatedly, some individuals assigned to different study groups may in fact be in the same household, exposing them to more than one treatment. For example, households that contain two elderly individuals with different last

complete list of members of the household (only individuals with the same last name and address who are both enrolled in Medicaid).

Second, the sample criteria are designed to identify people likely eligible for SNAP; some, however, may not be eligible. SNAP eligibility requirements are not strict subsets of Medicaid eligibility requirements. We estimate that between half and three-quarters of our sample is definitely eligible for SNAP, as they are enrolled via Medicaid assistance categories whose income and resources requirements are more stringent than requirements for SNAP. The other Medicaid categories have looser eligibility requirements, therefore some individuals in them may in fact be ineligible for SNAP (see Appendix A5 for details).

5.3. Randomization

As described above, we randomly keep one individual from each "household" to receive all study materials, dropping all other household members from the outreach sample. From the restricted list of 31,888 eligible individuals, we randomly assign study group status to each individual using a random number generator in Stata 2013.

In order to verify that the random allocation process functioned as intended and was replicable, the MIT team performed a series of quality assurance tests, and led analysts from BDT in conducting further tests. These included confirming that all de-identified study IDs were unique and matched perfectly to unique identifiers stored at BDT, that the Stata code used to randomize the study population was replicable, and that all Stata and analysis code was archived securely.

5.4. Tracking LT Responses

In order to capture information about which individuals respond to the LT intervention, we contracted with a call forwarding service. Call receptionists record the BDT-assigned identification number printed on outreach letters and postcards prior to forwarding the call to DHS (see Appendix 8 for their script). This allows for linkage of callers to the original Medicaid list used for outreach, from which we can identify who calls into DHS, as well as aggregate response rates to LT letters.

There are some foreseeable reasons why we may not be able to capture call-ins with the same accuracy across LT and HT phone lines. While BDT can ask for the caller's name to help locate their individual ID, the call forwarding service cannot (for human subjects reasons). Further, the call forwarding service has been instructed to forward calls to DHS in the event that the individual cannot find the outreach letter containing their individual ID, or other scenarios where forwarding is necessary (see Appendix A8 for more details). Calls into LT lines may also experience longer call wait times than calls into HT. We are monitoring this and other potential operational differences throughout the study and will try to minimize them.

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names who are both enrolled in Medicaid were not treated as being from the same household, and thus could receive different study group assignments. During the first 8 batches of letters, we observe that less than 1% (10 of 1364) HT callers have a BDT ID assigned to a LT arm.

5.5. Timing

There will be 11 batches of mailings. The first outreach letters for this study were mailed on January 6, 2016. Letters will be sent to the 21,258 individuals in a treatment arm across eleven weeks, in ten evenly sized batches of 2,000 letters and one smaller batch that includes the remainder of letters. The first batch of postcards was mailed eight weeks after letters were sent, and were mailed only if the individual had not responded to the initial letter. Thus, the final postcards will be sent by the end of May. We intend to follow the study population through (at least) December 2018.

6. Data

6.1. Primary Data Sources

Our primary data source will be administrative data from the State of Pennsylvania's Department of Human Services (DHS), primarily from the Office of Income Maintenance (OIM) and the Office of Medical Assistance Programs (OMAP).

The **outreach list** which defines our study population was constructed by BDT using data from OIM on current Medicaid enrollees in Pennsylvania ages 60 or older, merged with data from DHS's client information system (CIS) that tracks SNAP benefit issuances. The Medicaid file contains 229,584 elderly individuals from approximately 218,248 households[17], of which 119,511 individuals were not enrolled in SNAP. We randomize 31,888 individuals (one per household) who met our eligibility criteria and were included in the study. The outreach file contains a number of baseline demographic characteristics on the individuals, which we describe in more detail in 6.3 below.

We are endeavoring to obtain data on outcomes and baseline characteristics for the entire outreach list, (N=229,584) since those already enrolled in SNAP and Medicaid make another interesting comparison group. We have also requested the following outcomes data from DHS for each individual (or household in the case of SNAP) on the entire outreach list:

(1) SNAP data on:
    a. Applications (which should contain dates of application, detailed information on monthly expenses, deductions and income, and basic demographics such as age, zip code, city, gender, race, and SNAP household size)
    b. Enrollment and disenrollment dates
    c. Redetermination applications and results
    d. Benefit issuance amounts
(2) Medicaid data on:
    a. Applications (which should contain information on earnings and assets at the time of application, as well as demographics such as race, marital status, gender, age, primary language, and Medicaid coverage group)
    b. Enrollment data

[17] We do not observe SNAP households on the Medicaid list. Instead, we identify households using a proxy; individuals with the same last name and address are counted as living in the same household.

c. Claims data on healthcare utilization

(3) Enrollment in other social services, such as Low Income Home Energy Assistance Program (LIHEAP) and Pharmaceutical Assistance Contract for the Elderly (PACE)

(4) Transaction-level data on Electronic Benefit Transfer (EBT) expenditures including expenditure date, location, and amount.

All of these data come from OIM except for Medicaid claims which will come from OMAP.[18] We have requested these data for January 1, 2006 - December 31, 2018; that is, ten years retrospectively and three years prospectively from the start date of the study. These data will be covered under a fully executed data use agreement (DUA) between MIT, BDT, and DHS. Only BDT will receive Personally Identifiable Information (PII) and Protected Health Information (PHI), such as Social Security numbers, Medicaid numbers, full name, date of birth, address and phone numbers. MIT will be sent HIPAA-compliant de-identified and limited datasets that do not contain PII or PHI (except for medical encounter dates and permissible dates of birth) but instead contain masked study IDs that uniquely identify individuals and households. All data linkage involving personal identifiers will take place within DHS or BDT.

In order to limit the sharing of Personally Identifiable Information (PII) and Protected Health Information (PHI), we have proposed the following data linkage strategy:

1. BDT assigns a unique, non-identifying Study ID to each study individual.

2. BDT sends a file to DHS with this Study ID and other identifiers needed to identify and match individuals with DHS data.

3. DHS matches the requested data records with the list of individuals from BDT.

4. DHS removes all identifiers (such as name, address, and SSN), but does not remove the Study ID, thus creating a HIPAA-compliant Limited Data Set (LDS).

5. DHS transmits this data set to MIT using a secure transfer process. This prevents both MIT and BDT from holding a complete set of identified information.

This project has been reviewed and approved by MIT's Institutional Review Board (Protocol #: 1506106206).

6.2. Additional data sources

6.2.1 Response to outreach letters (calls)

We are also interested in examining response rates for each study group to compare "interest in applying" across treatment groups. To achieve this, we would ideally record every time an individual in our study population calls into the phone line provided on outreach materials. For the HT study groups, we are able to do exactly that. BDT identifies callers by asking for the study ID located on the letter. If the ID is not available, benefit specialists search the person's

[18] We request Medicaid enrollment data from both OIM and OMAP, since it is unclear at this point which source will have the most comprehensive record of enrollment.

name (or address or other identifiers) in PRISM, BDT's internal software platform that keeps careful record of ever individual that is contacted by BDT. The searchable platform allows for easy linking of callers to their study ID, limiting the incidence of responses that are untracked. Additionally, BDT records additional call statistics that may be fruitful for analysis, such as call timestamps, call durations, and information on the SNAP application process, such as whether the application qualifies for expedited review, whether deductions are associated with the application, the current status of the application, whether the individual consented to application assistance, other application inputs (e.g. monthly income, assets, and expenses), and potentially, estimated benefit amounts.

Our contracted call forwarding service allows us to track responses among the LT treatment groups. In particular, each LT treatment group is assigned its own "1-800" phone line, which allows us to distinguish the total number of call (responses) for each treatment group. In addition, live receptionists intercept calls to DHS and request and record the study ID provided on outreach materials that uniquely identifies each individual. As required by our DHS confidentiality agreement, however, the call forwarding service (unlike BDT) does not record the caller's name or any other personal identifiers. Instead, calls where the individual does not provide the ID (e.g. cannot find the ID, are not comfortable sharing the ID, or desire more information on SNAP immediately) are forwarded directly to DHS. Using data through March 1st, 2016 from the first four letter batches (sent January 6 through January 27), we find that there are 7 percent fewer unique callers into the LT standard and marketing treatments (call in rate thus far = 20.5%) compared to the HT standard and marketing treatments (call in rate = 22%). Such differences could reflect real differences in call-in rates or a lower capture rate in the LT arm. The call forwarding service also records data on time of call, status of call (e.g. hung-up, unanswered v. answered, connected to DHS, placed inside hours of operation), and call duration, which may prove useful when comparing response rates across HT and LT groups.

6.2.2 Credit report data

We are in the process of requesting data from the TransUnion consumer credit database, which contains detailed information on virtually all formal consumer borrowing gleaned from public records, collection agencies, and trade lines, such as credit card balances. In particular, we are interested in measures of unpaid bills or outstanding obligations, such as bankruptcy, tax liens, judgments, collections (medical and non-medical), and delinquencies (credit account with a payment that is 30 days or more late), as well as measures of borrowing (such as credit card balances and automobile installment loans) and access to credit (such as credit card limits and credit scores).

6.2.3 Earnings data

In addition, we have obtained an initial agreement from our collaborator Jae Song at the Social Security Administration (SSA) to link individuals in the study to SSA data on earnings and employment (both currently and retrospectively throughout lifetime), and on monthly enrollment information in SSI, SSDI, and SSA. These data would remain internally at SSA. We have in this

manner successfully collaborated with Dr. Song in the past on analyses of other randomized evaluations with SSA data (e.g., Baicker et al., 2014).

6.3. Preliminary Baseline Characteristics from Outreach list

We randomized treatment arms across the 31,888 individuals in our study population, as described in Section 5.3 above. To get a preliminary sense of some of the demographic characteristics of our study population at baseline, and to check that the randomization generated study groups that were statistically balanced on baseline covariates (as would be expected), we compared means across treatment groups of baseline demographic information available from the Medicaid outreach file.

The Medicaid outreach file contains a snapshot of information on Medicaid enrollees from approved Medicaid applications and re-certifications that are updated in an ad hoc fashion by caseworkers. Included is information on date of birth, gender, city of residence, primary language (as listed on the Medicaid application), a Medicaid assistance category that describes in which Pennsylvania Medicaid program the individual is enrolled (e.g. Medical Assistance Cost Sharing Aged, Modified adjusted gross income (MAGI), Medically Needy Only) and incomplete information on gross earned and unearned income (6.9% missing), and employment (82.1% missing). We do not yet know exactly how these data are updated and maintained, and thus are uncertain at this point whether we will use them as baseline characteristics in our final analyses.

In Appendix A6, Table A3 reports means of observable characteristics for elderly individuals included in the study. Specifically, we examine the number of elderly individuals per household (where household is defined as individuals that share last name and the same address on the Medicaid outreach file), age (as of 11/1/2015), gender, primary language listed on Medicaid application, monthly gross unearned and earned income, city of residence, and Medicaid assistance category. In Column 1, we report means for the entire Pennsylvania Medicaid population 60 years and older as reported on the Medicaid outreach file. Column 2 reports means for the entire study population, Column 3 reports means for the control population, and columns 4 – 9 report means for each treatment group (T1 through T6). We report analytic p-values that describe the probability of rejecting a null hypothesis that a characteristic is the same for a given treatment group (Columns 4-9) and the control group.

Column 2 shows our study population. We observe that 6% of households in our sample have two or more elderly individuals enrolled in Medicaid. 31% of individuals are 60-62, and 50% are under the age of 65; this reflects our exclusion of individuals who have been previously contacted by BDT and the fact that many of the prior contacts focus on 65+. For example, when conducting outreach on the Pharmaceutical Assistance Contract for the Elderly (PACE), BDT targets individuals 65 years or older, since only they are eligible. (Relatedly, the age composition of the entire outreach list is column (1) is only 30 percent under 65).

We also see that 96% of our study population speaks English as their primary language, and that average earned monthly income is $157 while unearned monthly income is $744. Further, 81% of individuals report no earnings at all (not shown), suggesting that much of our sample is retired or unemployed. 71% receive some form of unearned monthly income. 46% of individuals are enrolled in a Medicaid category associated with being aged, disabled, or blind, and 29% are enrolled in Medicaid programs solely based on having low-income and few assets (MAGI and general assistance categories).

We find that 5 of 180 comparisons reject the null hypothesis at 5% significance level, and that 16 of 180 comparisons reject the null at 10% significance level. The frequency of these chance differences is consistent with random assignment. We conduct additional tests in Section A6 of the Appendix (see Table A4) that compare the joint distribution of characteristics observed across study arms. From available baseline measures, the randomization appears to have produced balanced study groups for our comparisons of interest.

7. Empirical model

7.1. Treatment effects of intervention on behavior

Random assignment allows for estimation of the causal effect of the treatments on outcomes of interest. Our basic estimating equation will be of the form:

$$(1) \quad y_i = \alpha + \beta_1 T1_i + \beta_2 T2_i + \beta_3 T3_i + \beta_4 T4 + \beta_5 T5_i + \beta_6 T6_i + X_i\gamma + \varepsilon_i$$

where y_i is the dependent variable of interest (described below), Tn_i is an indicator variable for individual *i* being assigned to treatment group *n*; the omitted category is the control group ("no touch"). That is:

T1: HT Standard
T2: HT Marketing
T3: LT Standard
T4: LT Standard without Postcard
T5: LT Framing
T6: LT Marketing

X_i represents a vector of individual characteristics (measured prior to the intervention) that we may include as controls (such as the demographic information obtained from applications to other programs). Due to the use of random assignment, these are not necessary to obtain unbiased estimates of the impact of the HT and LT interventions, but may be useful in reducing residual variation and thus improving power. We will decide what baseline characteristics to include by exploring their partial r-squared; since we do not currently have most of our potential baseline characteristics (e.g. prior Medicaid claims, credit report data, and SSA earnings) we currently do not know whether or which covariates we will include in our primary specification.

Combining coefficients in the following ways provides information on the average effects of various arms. In particular, to test the null hypothesis of no effect of the stated comparisons we

test whether we can reject that the following combinations of coefficients are zero:

A. HT (Both versions) v. Control: $\beta_1 + \beta_2$
B. LT (All versions) v. Control: $\beta_3 + \beta_4 + \beta_5 + \beta_6$
C. HT (Standard +Marketing) v. LT (Standard + Marketing): $(\beta_1 + \beta_2) - (\beta_3 + \beta_5)$
D. Marketing (HT and LT) v. Standard (HT and LT): $(\beta_2 + \beta_5) - (\beta_1 + \beta_3)$
E. LT Standard w/o Postcard v. LT Standard: $\beta_3 - \beta_4$
F. LT Framing v. LT Standard: $\beta_6 - \beta_3$

β_n is the parameter of interest and measures the Intent to Treat (ITT): the causal effect of an individual being randomized into the treatment arm T*n* relative to the control. Although we have designed the study such that individuals randomized into a treatment group receive the stated treatment (e.g. for T3, this is receipt of the Standard LT letter and follow-up postcard), it may be that some mail does not reach the intended individual. We are tracking cases where mail is not received by the intended individual and plan to report the magnitude of leakage in the final analysis. Historically, BDT has found 1-2% of letters are returned to sender due to a bad address. Of course we cannot know if individuals open and read their mail. However, our measure of "calls" and "unique callers" into BDT or DHS will provide an estimate of the fraction who received, read, and responded to the mail.

The main outcomes of the intervention we will analyze are:

(1) SNAP enrollment (our primary outcome)
(2) Intermediate steps toward enrollment (calls in response to outreach, and applications submitted),
(3) Dollar amounts of benefits received (since as noted benefit amounts increase with better documentation of certain household expenses) and deductions listed (as a measure of "application completeness").

Our main analysis will examine these outcomes over a nine-month time frame, measured from the date of the initial mailing.[19] Such a time frame attempts to provide sufficient time for individuals to respond, apply, and enroll in SNAP, while minimizing noise in these behaviors not due to outreach. In particular, initial mailings suggest that response rates stabilize one month following outreach. Combined with the facts that postcards are mailed 8 weeks after the initial mailing, submission of benefit applications take up to two months, and SNAP offices can take up to two months to determine eligibility, nine months is a natural time frame for primary outcomes. However, since we are interested in distinguishing between the interventions moving the behavior forward in time versus affecting the behavior over a longer time window, we will also

[19] Naturally the date of initial mailing will vary across the 11 batches of letters. BDT assigns a scheduled "mail date" for each batch when the batch is released to the mail house and we will use the scheduled mailing date as our measure of "initial mailing date". The mailing date signifies the date the mail is sent from the mail house to a sorting facility. Once the sorting facility reaches a large enough threshold of mail items, it sends the mail pre-sorted and marked to regional bulk mailing centers who in turn distribute the mail to USPS to deliver to an individual's address. This entire process, from mail house to doorstep, typically takes 5-10 days.

analyze outcomes out to three years if possible. This will help us assess whether the interventions increase enrollment over a longer time horizon; they might not either because eventually the other arms enroll anyway (so that an intervention affects timing primarily) or because there is sufficient churn / failure to recertify.[20] We will also look at shorter horizons.

7.2. Analysis of marginal person whose behavior is affected

In addition to the impact of the interventions on enrollment and related outcomes, we are also interested in the characteristics of the marginal enrollee whose behavior is "affected" by the intervention. We will examine several dimensions of affected behavior including: enrollment, application, and call.

We will define an outcome variable y_i to be a baseline characteristic of an individual (such as a baseline measure of income) who exhibits the affected behavior (e.g. enrolls in SNAP, or applies for SNAP, or calls in response to the outreach).

We will then use equation (1) to estimate the effect of a given treatment group on the average characteristics of those for whom a given behavior was affected by the treatment. This approach to analyzing the characteristics of the marginal person affected by an intervention is analogous to the approaches taken in prior work by Gruber et al. (1999) and Einav et al. (2010). In addition, we can use standard techniques (Abadie, 2005, 2005; Angrist and Pischke, 2009) to characterize the always takers, never takers, and compliers.

One potential barrier to such analysis is if there is virtually no take-up among the controls, there will be few "always takers" with characteristics to analyze and compare to compliers. Analysis over longer time periods (e.g. 2 years instead of our baseline 9 months) may be useful here as a way to increase the number of enrollees among the controls whom we can compare to. In addition, this concern is part of the motivation for our requesting data not just on our study population of individuals enrolled in Medicaid but not in SNAP, but also for the entire outreach list of individuals 60 and over enrolled in Medicaid (see Section 6). This will enable us to also examine the characteristics of individuals enrolled in Medicaid and in SNAP at the start of our study period. While not a pure experimental control, some of these individuals may also be a useful comparison group.

Characteristics

Ideally, we would measure consumption (or "ability") and perhaps also cognitive capacity. The neoclassical theory suggests that ordeals screen out higher consumption (ability) individuals, whereas the behavioral theories suggest they screen out people with more limited cognitive capacity ("bandwidth") who tend to have lower consumption (since poverty "taxes" bandwidth).

[20] As part of looking at longer time horizons we will also directly analyze applications for recertification as well as recertification outcomes.

In practice we will have cruder proxies such as permanent income, health conditions and health care expenses, and potentially claims-based health measures such as dementia.

Specifically, we can examine basic baseline demographic characteristics (including age, race, sex, and household size), as well as various proxies for "need" or consumption including (1) baseline measures of financial strain and access to credit (from Transunion data), (2) baseline permanent income (from SSA earnings history or benefit receipt pre-randomization), and (3) baseline health (from Medicaid claims data).

We can also look at several subsequent "outcomes" for enrollees as an ex-post measure of their characteristics. In particular we will look among enrollees at their (4) SNAP expenditure profiles, (5) applications for recertification and duration of SNAP benefit receipt.

SNAP enrollees on average experience a decline in expenditures towards the end of their benefit period (Hastings and Washington, 2010). Individuals who exhibit such a pattern are likely to be needier (more constrained in consumption) than individuals who do not, and/or may exhibit greater myopic behavior via hyperbolic discounting (Shapiro, 2005).We can utilize data on SNAP expenditure profiles from DHS to classify enrollees by the extent to which their expenditures display this declining profile.

Applications for recertification and duration of SNAP benefit receipt provide information on how individuals value SNAP benefits. Although interpreting differences across treatment groups may be difficult, comparable rates would be consistent with SNAP being similarly valued across those who take-up.

In addition to examining the impact of the treatments on average characteristics of the marginal affected individuals, we will also examine the "tail" characteristics of the marginal affected individual; it is possible that the interventions draw from both ends of the distribution (i.e. both the "neoclassical" and "behavioral" theories are in effect). However, we may be less powered to observe effects among these "tail" characteristics.

7.3. Speculative Outcomes

7.3.1 Spillovers to other safety net programs

Researchers have studied the possibility of spillovers across *people* through so-called "welfare networks", whereby enrollment by friends, neighbors, or relatives increases one's own likelihood of enrollment through knowledge spillovers (e.g., Bertrand et al., 2000; Dahl et al., 2014, forthcoming). Recently, evidence from the Oregon Health Insurance Experiment pointed to potential spillovers *within* an individual, *across programs:* Baicker et al. (2014) found that enrollment in Medicaid increased enrollment in SNAP; a likely mechanism is that case workers who handle Medicaid applications are instructed to suggest a potential SNAP application to their Medicaid applicants. Since BDT offers assistance applying to other safety net programs at the same time it assists with SNAP applications, and individuals who contact DHS to apply for

SNAP may be encouraged to apply for other benefits, we plan to explore the impact of the interventions on take-up of other public benefits, such as low-income home energy assistance program (LIHEAP) or Pharmaceutical Assistance Contract for the Elderly (PACE) as tertiary or speculative outcomes. These data are stored at DHS and may become available for our research. Likewise, in principle we can also examine the impact of the interventions on enrollment in SSI, SSDI, and Social Security OAS, using SSA data. All such analyses would be based on estimating equation (1) for these other enrollment outcomes.

7.3.2 Subsequent effects of SNAP on health care utilization and financial well-being

We know remarkably little about the impact of SNAP. Studies of the introduction of food stamps – relying on its staggered introduction across counties in the 1960s – have found that food stamps increase food consumption (Hoynes and Schanzenbach, 2009), improve birth outcomes (Almond et al., 2011), and that receipt in utero and in childhood produces health benefits decades later in adulthood (Hoynes et al., 2012).Yet there has been relatively little work on the impact of the food stamp program for more recent years. This presumably reflects the considerable empirical challenges in studying what is essentially a uniform public program.

Despite this lack of evidence, there is widespread conjecture that SNAP receipt may be important in improving health and reducing health care costs.[21] A natural mechanism would be that food insecurity leads to the purchase of energy-dense foods, such as refined grains, added sugars, and saturated/trans fats, that are cheaper "calorie-for-calorie" but are less rich in micronutrients and which, over the long-term, may increase one's risk of diabetes and other chronic diseases (Seligman et al., 2010). Suggestive evidence for such a mechanism is provided by Seligman et al. (2014), which finds that low-income people with diabetes are significantly more likely to be admitted to the hospital for dangerously low blood sugar levels in the last week of the month (when monthly food stamp benefits are most likely to be exhausted) compared to the first week of the month.

Medicaid claims data provide information on health care utilization and proxies for health. Transunion credit report data provide information on financial well-being (or strain). In principle we can use the interventions as an instrument for SNAP enrollment and run two-stage least squares regressions to analyze the impact of SNAP enrollment on health, healthcare use and financial well-being. In practice, we suspect we are currently under-powered to detect impacts of SNAP, although we may be able to combine the current study with additional sample in the future to make more progress.

8. Power calculations

We conducted power calculations of our minimum detectable effect sizes on behaviors

[21] For example, the Robert Wood Johnson Foundation estimates that taking away SNAP benefits for 5 million individuals as a result of congressional budget cuts would lead to a $15 billion increase in diabetes-related medical costs over the next ten years (Robert Wood Johnson Foundation, 2013). The Food Research and Action Center cites multiple observational studies linking SNAP participation to improved health outcomes (Hartline-Grafton, 2013).

(responses, applications and enrollment) for each of the planned comparisons described above. Table 1 summarizes the results. Using summary statistics on historical experience with outreach provided by BDT from their SNAP outreach to an elderly Medicaid list in Maryland (see Appendix A7 for details), we assume 30.0% of individuals contacted by BDT respond, 12.0% apply, and 7.5% enroll in SNAP. Lacking data on behaviors in the LT and control groups, we assumed 30.0% also respond to the LT intervention (since LT materials are constructed to be as similar as possible to HT materials), 7.0% apply (a lower rate reflecting the lack of assistance), and 5.0% enroll. For the control group, we assume 5.0% apply and 4.0% enroll.

Focusing on enrollment, the minimum detectable effect (MDE) size is 1.8 percentage points (or less for some comparisons), assuming conventional 80 percent power and 95 percent confidence intervals. To put this in perspective, this is considerably smaller than the 6 percentage increase in enrollment at 12 months and the 9 percentage point increase in enrollment at 17 months found by an observational study of the impact of the BDT intervention on enrollment (Kauff et al., 2014). It is also considerably smaller than the 14 to 31 percentage point take-up effects that Bhargava and Manoli (2015) found across their various interventions aimed at boosting enrollment in the EITC among likely eligible, non-enrolled individuals. Another useful benchmark for gauging this MDE is BDT's estimate from its Maryland outreach that 7.5 percent of elderly Medicaid enrollees it reached out to ultimately enrolled in SNAP; although they naturally do not have information on the counterfactual behaviors in the "no touch" control population, our power calculations indicate that as long as less than 5.7 percent of controls enroll, we would be able to detect an impact on enrollment.[22]

Table 1. Minimum Detectable Effect Sizes for Analysis of Treatment Effects on Reponse to Outreach, SNAP Applications, and SNAP Enrollment

			Responded			Applied			Enrolled		
	N		Comp. Mean	Effect Size		Comp. Mean	Effect Size		Comp. Mean	Effect Size	
	Comparison	Treatment		P.P.	(%)		P.P.	(%)		P.P.	(%)
	(1)	(2)	(4)	(5)	(6)	(8)	(9)	(10)	(12)	(13)	(14)
HT ALL v. Control	10630	10629	-	-	-	5.0	0.9	17.4	4.0	0.8	19.7
LT ALL v. Control	10630	10629	-	-	-	5.0	0.9	17.4	4.0	0.8	19.7
HT ALL v. LT Standard & Marketing	5314	10629	30	2.2	7.3	7.0	1.3	17.9	5.0	1.1	21.7
Marketing (HT&LT) v. Standard (HT&LT)	10629	5314	30	2.2	7.3	10.8	1.5	13.9	6.9	1.2	17.9
LT w/out Postcard v. LT Standard	2657	2658	30	3.6	11.9	7.0	2.1	29.9	5.0	1.8	36.2
LT Framing v. LT Standard	2657	2657	30	3.6	11.9	7.0	2.1	29.9	5.0	1.8	36.2

Notes: This table reports the minimum detectable effect sizes in percentage points and percentages for various comparisons of interest. Based on BDT's outreach to an elderly Medicaid list in Maryland, we assume 30% of individuals in low touch and high touch groups respond; 5% of the control group, 7% of low touch groups, and 12% of high touch groups apply for SNAP; 4% of the control group, 5% of the low touch group, and 7.5% of the high touch group enroll in SNAP. We assume conventional power and confidence intervals (i.e., 80% power and 95% confidence intervals). We abbreviate percentage points as P.P.

[22] We do not include covariates in this power calculation: their inclusion will likely improve power even further.

We also conducted power calculations for our analysis of the characteristics of the marginal individual who responds, applies, or enrolls under different treatment arms. Table 2 summarizes these results. Since we currently lack much information on characteristics of our population, we explore a binary outcome that is unitary for 50% of the population and zero otherwise. This could be an indicator we construct that describes whether or not an individual has below median income in our sample. We assume the same baseline behaviors for each study group as we assumed in Table 1; 30% respond, 12% apply, and 7.5% enroll in HT groups; 30% respond, 7% apply, and 5% enroll in LT groups; 5% apply and 4% enroll in the control group.

We have power to detect a 10 percentage point difference in a binary outcome that is unitary for 50% of the population (e.g. below median income) between individuals induced to enroll in SNAP when comparing HT and control, LT and control, and HT and LT study groups. Relative to the shares of these characteristics in the control group, our minimum detectable effect sizes constitute differences in enrollee characteristics on the order of 18 to 20 percent. It is difficult to put these numbers in perspective since a major motivation for the proposed study is that there has been little work on this question. However, in a recent randomized evaluation in Indonesia, Alatas et al. (2014) found that self-targeting (rather than automatic enrollment) decreased per-capita consumption (their measure of poverty) among enrollees by 20 percent, suggesting that such effect sizes are not unreasonable. We may also pool characteristics together into indices to improve power (see e.g. Kling et al., 2007).

Table 2. Minimum Detectable Effect Sizes for Analysis of Characteristics of Marginal Responder, Applicant, and Enrollee

	Effective N for Enrollees		Comparison Mean (pcntge pts)	MDE (pcntge pts)		
	Comparison	Treatment		Called	Applied	Enrolled
	(1)	(2)	(3)	(4)	(5)	(6)
HT ALL v. Control	425	797	50.00	6.05	7.20	8.37
LT ALL v. Control	425	531	50.00	6.05	7.92	9.06
HT ALL v. LT Standard & Marketing	266	797	50.00	4.29	8.20	9.83
Marketing (HT&LT) v. Standard (HT&LT)	731	332	50.00	4.29	7.46	9.23
LT w/out Postcard v. LT Standard	133	133	50.00	6.99	14.33	16.86
LT Framing v. LT Standard	133	133	50.00	6.99	14.33	16.86

Notes: This table reports the minimum detectable effect sizes in percentage points for various comparisons of interest. Our charactersitic "outcome" is any binary indicator that is unitary for half the population (e.g. "below median income"). Based on BDT's outreach to an elderly Medicaid list in Maryland, we assume 30% of individuals in low touch and high touch groups respond; 5% of the control group, 7% of low touch groups, and 12% of high touch groups apply for SNAP; 4% of the control group, 5% of the low touch group, and 7.5% of the high touch group enroll in SNAP. Effective study group sizes are computed by multiplying the number of households in a study group by the percentage of that group that are assumed to enroll. We only report effective group sizes for enrollment analyeses. We assume conventional power and confidence intervals (i.e., 80% power and 95% confidence intervals).

9. Limitations

We briefly mention several potential limitations to our design. The first concerns generalizability: this study focuses on elderly individuals who are enrolled in Medicaid but not enrolled in SNAP. An individual who is already enrolled in Medicaid may be differentially receptive to enrolling in SNAP compared to the general Medicaid-eligible population. Of course, Medicaid enrollment is not the same as "take-up" in a program such as SNAP, since individuals who do not take-up Medicaid may in fact be "conditionally covered" (Cutler and Gruber, 1996); enrollment in Medicaid may reflect past health care events as much or more than efforts and interest of the individual to enroll.

Relatedly, we also exclude individuals who BDT has record of contacting previously, which is a non-random sample of the population. For example, as noted, individuals 65 plus are more likely to have been contacted previously because of eligibility for other programs that BDT was doing outreach on (e.g. PACE).

Second, we do not directly observe ability or "need", but rather only various proxies for it. A particular characteristic that would be valuable to observe that we do not is consumption. Relatedly, informal cash-based employment or support received from relatives and friends is not directly captured in our data.

Third, our proposed analysis stops short of testing a complete reduction of potential barriers to enrollment. Even in the presence of application assistance, there still exist substantial transaction costs to applying. Similarly, we only inform individuals of "likely" eligibility, predicted from enrollment in Medicaid, rather than true eligibility. We are also limited in our ability to manipulate stigma as a cost associated with enrolling.

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Appendix

A1. Net income

SNAP benefits – and in some cases eligibility – are a function of "net income". Net income is gross income minus exempt income and deductions for certain expenses.

Exempt income includes, for example, other benefit payments (e.g. SSI), cash assistance for childcare or medical expenses, loans, educational assistance, military salary reductions, and interest earned on savings or checking accounts.

Every household is entitled to a standard deduction based on their household size. Below is a table of standard deductions (Pennsylvania Department of Public Welfare, 2014):

# of People in Household	Deduction Amount
1-3	$155
4	$168
5	$197
6+	$226

Households also can also receive additional deductions based on their medical, child support, dependent care expenses, and utility expenses as well as earned income. For example, a household can deduct 20% of earned income, gross housing and utility costs exceeding 50% of gross income, dependent care costs, shelter costs over 50% of gross income, monthly medical costs over $35 if elderly, phone costs, and child support. Table A1 below summarizes the standard deductions for various types of expenditures. (Pennsylvania Department of Human Services, 2015)

Table A1: SNAP Income Deductions

Deduction Type	Eligibility Summary	Deduction Amount
Standard Utility Allowance	If >50% of monthly gross income is spent on housing and utilities after all other deductions	**$0-557, unless elderly, for whom there is no cap.**
Heating	Same as above	Monthly expenses up to **$570**, unless elderly, for whom there is no cap.
Non-heating	Same as above	Monthly expenses up to $296, unless elderly, for whom there is no cap.
Limited	Same as above	**$55** for all HH that qualify
Homeless	Any HH that is or expects to be homeless during the next month.	**$143** for all HH that qualify
Phone	If not receiving other utility allowances	**$33** for all HH that qualify
Dependent Care	If care is required for employment, job-searching, or educational purposes	Actual cost
Excess Shelter	If >50% of monthly gross income is spent on housing and utilities after all other deductions	Monthly expenses up to **$504**, unless elderly, for whom there is no cap.
Earned Income	All SNAP recipients	**20%** of all earned income
Excess Medical	Only for elderly, disabled, members receiving SSI	**Monthly costs >$35.** This deduction can only increase benefits for HH w/ elderly or disabled (not SSI members).
Child Support	Any households that contains a member who is required by law to pay child support for child **not in the same household**	The deduction amount is **4 times the weekly amount paid**, but is not to exceed the amount of the court ordered support. However, if the payment includes a past-due amount, the deduction is the current month's payment, not to exceed the monthly obligation, plus the amount paid toward the past-due amount.

Source: The Pennsylvania Department of Human Services. Effective: October 1, 2015.

A2. Copies of Letters, Postcards, & Envelopes

A2.1. Letters and Postcards

T1: HT Standard Bundle

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! You may qualify for help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

We want to help you apply for SNAP!

We are working closely with the PA Benefits Center to help you get SNAP. Thousands of older Pennsylvanians already **get an average of $119 a month** to buy healthy food.

Please call the PA Benefits Center today.
It could **save you hundreds of dollars each year.**

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

Call us at **1-800-528-9594**
Monday - Friday
9:00AM – 5:00 PM

The call is free.
Our friendly staff
will help you.

(XXX)

PA benefits center

Dear Pennsylvania Resident,

We haven't heard from you!

Our records show you may qualify to receive help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

Don't miss this opportunity! We are working with the PA Benefits Center to make sure you get the help you deserve.

- Thousands of older Pennsylvanians already **get an average of $119 a month** to buy healthy food.
- It is FREE to apply for SNAP.
- You may be able to apply using a simple fast track application.

Apply for SNAP now!

Call us for FREE at: **1-800-528-9594**
Monday - Friday, 9:00 AM - 5:00 PM

Call the PA Benefits Center today. It won't take long and could **save you hundreds of dollars each year**.

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

T2: HT Marketing Bundle

Need help buying groceries?
Apply Today!

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! Our records show that you may qualify to receive SNAP benefits to pay for your groceries.

You may get benefits within a month.
The average applicant gets $119 a month to spend on groceries.

We look out for you – it's a simpler process.
Now you can complete your application over the phone without leaving your house.

After that, keep your benefits coming.
Many older Pennsylvanians qualify for 12 months or more of SNAP benefits without any hassles or review.

Join the thousands of older Pennsylvanians already claiming their SNAP benefits. Don't leave your benefits on the table.

Please call the PA Benefits Center today. It won't take long and could **save you hundreds of dollars each year**.

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

Call us FREE at
1-800-528-9594
Monday - Friday
9:00AM – 5:00 PM

(XXX)

Need help buying groceries?

Apply Today!

Dear Pennsylvania Resident,

Good news! Our records show that you may qualify to receive SNAP benefits to help pay for your groceries. **It is FREE to apply!**

You may get benefits within a month. The average applicant gets $119 a month to spend on groceries.

We look out for you – it's a simpler process. Now you can complete your application over the phone without leaving your house.

After that, keep your benefits coming. Get benefits for 12 months or more with one application.

Call us for FREE at: **1-800-528-9594**
Monday - Friday, 9:00 AM - 5:00 PM

Call the PA Benefits Center today. It won't take long and could **save you hundreds of dollars each year**.

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

pennsylvania
DEPARTMENT OF HUMAN SERVICES

T3: LT Standard Bundle

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! You may qualify for help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

We want to help you apply for SNAP!

We want to help you get SNAP. Thousands of older Pennsylvanians already **get an average of $119 a month** to buy healthy food.

Please call the Department of Human Services today. It could **save you hundreds of dollars each year.**

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

Call us at **1-800-760-4779**
Monday - Friday
8:45AM – 4:45 PM

The call is free.
Our friendly staff
will help you.

(XXX)

pennsylvania
DEPARTMENT OF HUMAN SERVICES

Dear Pennsylvania Resident,

We haven't heard from you!

Our records show you may qualify to receive help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

Don't miss this opportunity! We want to make sure you get the help you deserve.

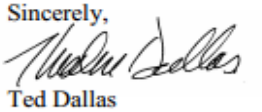
- Thousands of older Pennsylvanians already **get an average of $119 a month** to buy healthy food.
- It is FREE to apply for SNAP.

Apply for SNAP now!

Call us for FREE at: **1-800-760-4779**
Monday - Friday, 8:45 AM - 4:45 PM

Call the Department of Human Services today. It won't take long and could **save you hundreds of dollars each year**.

Sincerely,



Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

T4: LT Standard without Postcard Bundle

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! You may qualify for help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

We want to help you apply for SNAP!

We want to help you get SNAP. Thousands of older Pennsylvanians already **get an average of $119 a month** to buy healthy food.

Please call the Department of Human Services today. It could **save you hundreds of dollars each year.**

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

Call us at **1-800-877-9033**
Monday - Friday
8:45AM – 4:45 PM

The call is free.
Our friendly staff will help you.

(XXX)

T5: LT Framing Bundle

pennsylvania
DEPARTMENT OF HUMAN SERVICES

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! You may qualify for help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

We want to help you apply for SNAP!

We want to help you get SNAP. Thousands of older Pennsylvanians already **get up to $200 a month** to buy healthy food.

Please call the Department of Human Services today. It could **save you thousands of dollars each year.**

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

Call us at **1-800-819-1877**
Monday - Friday
8:45AM – 4:45 PM

The call is free.
Our friendly staff
will help you.

(XXX)

pennsylvania
DEPARTMENT OF HUMAN SERVICES

Dear Pennsylvania Resident,

We haven't heard from you!

Our records show you may qualify to receive help paying for groceries through the Supplemental Nutrition Assistance Program (SNAP).

Don't miss this opportunity! We want to make sure you get the help you deserve.

- Thousands of older Pennsylvanians already **get up to $200 a month** to buy healthy food.
- It is FREE to apply for SNAP.

Apply for SNAP now!

Call us for FREE at: **1-800-819-1877**
Monday - Friday, 8:45 AM - 4:45 PM

Call the Department of Human Services today. It won't take long and could **save you thousands of dollars each year**.

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Need help buying groceries?
Apply Today!

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! Our records show that you may qualify to receive SNAP benefits to pay for your groceries.

You may get benefits within a month.
The average applicant gets $119 a month to spend on groceries.

We look out for you – it's a simpler process.
After submitting your application, you can complete a telephone interview without leaving your house.

After that, keep your benefits coming.
Many older Pennsylvanians qualify for 12 months or more of SNAP benefits without any hassles or review.

Join the thousands of older Pennsylvanians already claiming their SNAP benefits. Don't leave your benefits on the table.

Please call the Department of Human Services today. It won't take long and could **save you hundreds of dollars each year.**

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

Call us FREE at
1-800-827-0644
Monday - Friday
8:45AM – 4:45 PM

(XXX)

Need help buying groceries?

Apply Today!

Dear Pennsylvania Resident,

Good news! Our records show that you may qualify to receive SNAP benefits to help pay for your groceries. **It is FREE to apply!**

You may get benefits within a month. The average applicant gets $119 a month to spend on groceries.

We look out for you – it's a simpler process. After submitting your application, you can complete a phone interview without leaving your house.

After that, keep your benefits coming. Get benefits for 12 months or more with one application.

Call us for FREE at: **1-800-827-0644**
Monday - Friday, 8:45 AM - 4:45 PM

Call the Department of Human Services today. It won't take long and could **save you hundreds of dollars each year**.

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

pennsylvania
DEPARTMENT OF HUMAN SERVICES

A2.2. Envelopes

HT: T1 & T2

LT: T3 – T6

A3. Overview of High Touch Intervention[23]

	Interested	Apply	DHS Review
BDT	• Mails letter informing of potential eligibility • Mails follow-up postcard if no reply after 8 weeks • Conducts SNAP benefits screening over phone to determine likely eligibility and benefit levels • Provides information on SNAP application process over phone	• Fills out application for SNAP • Informs applicant of required verification documents • Mails instructions and envelope to applicant to collect verification documents • Reviews documents and follows up if not sufficient • Submits full application and documents	• Upon request from potential applicant, assists in gathering and mailing of additional verification documents • Advocates on applicant's behalf if there are application issues.
Applicant	• Receives letter or postcard • Calls BDT • Provides personal information for benefits screening • Decides whether or not to apply and/or consent to direct assistance from BDT	• Completes intake questionnaire over phone • Mails verification documents to BDT in pre-addressed envelope • Provides telephonic signature to submit application	• Schedules phone interview with DHS • Participates in phone interview • Mails follow-up documentation if needed • Contacts BDT if problem arises

[23] This table details application process for applicants who receive "full" assistance from BDT. This group comprises 75% of all eligible callers.

A4. Design of Marketing Intervention

We studied various credit card solicitations in an attempt to present SNAP benefits in an appealing way to elderly that potentially reduces perceived stigma. Below we present components of three credit card solicitations we consulted, and then discuss our basis for particular language and graphics for the marketing design.

Example 1

Example 2

Example 3

Accept your Card today!

Just complete and return the enclosed Acceptance Form.* Or call toll free 1-888-32-CASTLE (1-888-322-2785) for even faster service.

Marketing Letter

L2– HT Marketing Letter

1 Need help buying groceries? **Apply Today!**

2

Sample A. Sample
2 Logan Square, Ste 550
Philadelphia, PA

Dear Sample A. Sample,

Good news! Our records show that you may qualify to receive SNAP benefits to pay for your groceries.

3 **You may get benefits within a month.**
The average applicant gets $119 a month to spend on groceries.

4 **We look out for you – it's a simpler process.**
Now you can complete your application over the phone without leaving your house.

5 **After that, keep your benefits coming.**
Many older Pennsylvanians qualify for 12 months or more of SNAP benefits without any hassles or review.

6 **Join the thousands of older Pennsylvanians already claiming their SNAP benefits.** Don't leave your benefits on the table.

Please call the PA Benefits Center today. It won't take long and could **save you hundreds of dollars each year**.

Sincerely,

Ted Dallas
Secretary of the Pennsylvania
Department of Human Services

Ted Dallas
Secretary of the Pennsylvania
Dept. of Human Services

Beneficiary ID#:
########

Apply now!

7 Call us FREE at
1-800-528-9594
Monday - Friday
9:00AM – 5:00 PM

(XXX)

Item 1: As shown in Examples 1 and 2, most credit card solicitations contain an easy to read tagline.

Item 2: As Examples 1 and 2 demonstrate, many credit card solicitations include a plastic example credit cards (or pictures of a credit card) that make salient the ease with which one can receive a card. Although we discussed including a plastic example card with the individuals' name, we decided against this idea since some elderly may confuse this example card for a true benefits card. To this end, however, we decided to include a colored picture of a PA Access card.

The format of items 3-6 were modeled after Example 2: one "catchy" sentence in bold, followed by an informative explanation.

Item 3: This item makes salient how quickly one can receive benefits, which is not discussed in non-marketing letters. The average benefit amount is the same as the HT and LT Standard letter.

Item 4: "We look out for you" is directly borrowed from Example 2. We also make salient that phone assistance is provided to make the application process easier.

Item 5: This language is also borrowed from Example 2, emphasizing how long eligibility may last for elderly. This information is not provided in non-marketing materials.

Item 6: We emphasis that "thousands of elderly Pennsylvanians" already receive SNAP in an attempt to reduce any stigma associated with SNAP receipt. We also intentionally do not define SNAP, so as to reduce the potential for stigma.

Item 7: Example 3 provides an example of language that highlights that calls regarding an application are free. We implement similar language in item 7.

A5. Eligibility Requirements of Medicaid Categories v. SNAP

Summary of Eligibility Requirements for Medicaid Coverage Groups and SNAP

Source	Stricter than SNAP?	SES Rank	Medicaid Coverage Group	Medicaid Coverage Sub-group	% of Study Population	Income	Resources	Other Requirements and/or Notes
A	Yes	1	Medically Needy Only (MNO)	Medical Assistance Aged MN); Medical Assistance General Assistance MNO; Medical Assistance for Disabled MNO	25.46	<50% FPIG ($425 per month in net income)	None	In brief, Medically Needy programs work by looking at the difference between a candidate's monthly care expenses and their monthly income. Should their expenses be so high that their remaining "disposable income" is less than $425 / month (this is an approximate amount for 2016), they can then gain eligibility.
B	Yes	2	Healthy Horizons*		0 - 24.42	100% FPIG	single: $2,000 couple: $3,000	
A	Yes	3	Medical Assistance Cost Sharing Aged		1.74	135% FPIG	single: $7,280 couple: $10,930	This category contains Qualified Medicare Benficiaries (QMB), Specified Low-Income Medicare Beneficiary (SLMB), Qualifying Individuals (QI), each with different income cutoffs. QMB: Income = <100% FPIG; SLIMB: Income = 100-120% FPIG; QI: Income = 120-135% FPIG
B	Yes	4	MAGI		23.97	138% FPIG	None	Individual must be under 65
C	Yes	5	Select Plan for Women		0.04	185% FPIG	N/A	Applicants must be between 18-44 and not sterilized! Either this is a data error or the individuals with this category lied about age to receive benefits.
A	No		Breast and Cervical Cancer*		0 - 24.42	None	None	Person must be uninsured or have no creditable health insurance, under 65, screened by qualified medical provider.
D & E	No		Non-money Payment (NMP)	Medicaid for Aged NMP Long Term Care; Medicaid for Aged NMP Waiver Program; Medicaid for Blind NMP Waiver Program; Medicaid for Disabled NMP Long Term Care; Medicaid for Disabled NMP Waiver Program; Medical Assistance (General Assistance) NMP; Medical Assistance for Aged NMP; Medical Assistance for Blind NMP; Medical Assistance for Disabled NMP	17.53	300% of the Federal Benefit Rate (FBR). In 2015 this was: single = $2199 couple= $3300	$2000 to $2400	If income below or equal to 300% FBR, the resource limit is $2,000 with an additional $6,000 resource disregard. If income is above 300% FBR, the resource limit is $2,400. Many individuals pay for long term care with personal funds and eventually reduce resources to MA long term care limits.
A	No		Medical Assistance for Workers with Disabilities		6.84	250% FPIG	$10,000	
		SNAP**				200% FPIG (gross)	None	

Source:
- A "Medical Assistance for Older People and People with Disabilities", Pennsylvania Department of Human Services. January 2016. Link: http://www.dhs.pa.gov/citizens/servicesfordisabled/medicalassistanceforolderpeopleandpeoplewithisabilities/#.VqpJ4fkrKUm
- B "Medical Assistance Eligibility Manual", Pennsylvania Health Law Project. February 2015. Link: http://www.phlp.org/wp-
- C "Application for SelectPlan for Women", Pennsylvania Department of Human Services. January 2016. Link: http://services.dpw.state.pa.us/oimpolicymanuals/ma/pa 600SP (SG) (3).pdf
- D "Medical Assistance and Payment of Long Term Care Services", Pennsylvania Department of Human Services. January 2016. Link: http://www.dhs.pa.gov/citizens/longtermcareservices/medicalassistanceandpaymentoflongtermcareservices/#.VqpMUvkrKUl
- E "Understanding Supplemental Security Income SSI General Information -- 2015 Edition", Social Security Administration. January 2016. Link: https://www.ssa.gov/ssi/text-general-ussi.htm

Notes: SES Rank is determined by observable income and resource requirements, and ordered from lowest to highest SES for Medicaid categories having stricter eligibility requirements than SNAP. FPIG stands for Federal Poverty Income Guidelines.

***** In the preliminary administrative records received from DHS as part of the Medicaid outreach file, Healthy Horizons and Breast and Cervical Cancer coverage groups were lumped into one group.

****** We only report eligibility requirements for Pennsylvania's expanded eligible category since BDT reports that most callers are eligible through this channel and because these requirements allow for higher SES individuals to qualify for SNAP.

A6. Baseline Characteristics

A6.1. Means Comparison

Table A3 shows mean comparisons.

Means Comparisons

			Targeted						
				High touch		Low touch			
	Medicaid Outreach List	Study Population	Control	Standard	Marketing	Standard	Standard, no postcard	Marketing	Framing
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Basic Demographics									
Number of elderly individuals* per HH**	1.102	1.058	1.060	1.054	1.053	1.060	1.055	1.059	1.066
				0.056	0.140	0.943	0.336	0.884	0.300
Percent of HH with 2+ elderly individuals	0.098	0.058	0.060	0.053	0.052	0.059	0.055	0.059	0.065
				0.044	0.127	0.854	0.351	0.854	0.279
Age of recipient	72.905	68.834	68.802	68.684	68.911	68.949	69.099	68.903	68.890
				0.390	0.586	0.462	0.138	0.614	0.660
Age 60-62	0.179	0.314	0.314	0.315	0.321	0.322	0.304	0.303	0.311
				0.824	0.474	0.387	0.328	0.298	0.769
Age 63-64	0.104	0.182	0.185	0.185	0.173	0.182	0.169	0.178	0.182
				0.968	0.154	0.697	0.060	0.376	0.697
Age 65-74	0.327	0.254	0.254	0.255	0.249	0.238	0.261	0.260	0.262
				0.967	0.553	0.080	0.476	0.521	0.446
Age 75+	0.390	0.250	0.247	0.245	0.257	0.258	0.266	0.259	0.246
				0.753	0.273	0.240	0.045	0.209	0.916
Average age of HH	72.905	68.839	68.816	68.677	68.919	68.947	69.113	68.917	68.875
				0.309	0.607	0.511	0.138	0.613	0.768
Male	0.348	0.380	0.381	0.384	0.371	0.381	0.372	0.381	0.378
				0.601	0.380	0.987	0.392	0.959	0.815
Primary Language									
English	0.964	0.958	0.959	0.958	0.963	0.959	0.954	0.952	0.964
				0.815	0.362	0.898	0.278	0.128	0.278
Spanish	0.023	0.026	0.025	0.028	0.023	0.025	0.031	0.029	0.023
				0.191	0.608	0.936	0.123	0.266	0.608
Other	0.012	0.015	0.016	0.014	0.014	0.016	0.015	0.019	0.013
				0.183	0.416	0.916	0.803	0.303	0.272

Monthly income									
Recipient gross earned	55.770	157.441	154.056	170.630	160.998	154.264	139.559	148.848	157.594
				0.068	0.602	0.988	0.274	0.694	0.790
Recipient gross unearned	953.312	744.123	749.590	746.886	731.456	751.425	730.937	736.604	740.145
				0.759	0.162	0.887	0.148	0.314	0.464
Percent of recipients missing income	0.046	0.068	0.070	0.067	0.074	0.072	0.063	0.063	0.066
				0.440	0.447	0.628	0.190	0.216	0.537
HH gross earned	61.583	166.717	163.265	180.867	169.094	162.896	144.843	160.442	167.744
				0.061	0.673	0.979	0.179	0.837	0.745
HH gross unearned	1028.355	773.927	782.464	773.776	759.123	781.596	758.523	766.469	770.373
				0.345	0.084	0.949	0.075	0.234	0.369
Percent of HH missing income	0.048	0.069	0.071	0.068	0.075	0.073	0.064	0.063	0.068
				0.424	0.450	0.630	0.218	0.172	0.634
Residence									
Pittsburgh	0.050	0.058	0.058	0.060	0.055	0.053	0.054	0.060	0.059
				0.548	0.528	0.353	0.478	0.680	0.851
Philadelphia	0.184	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				-	-	-	-	-	-
Other	0.767	0.942	0.942	0.940	0.945	0.947	0.946	0.940	0.941
				0.548	0.528	0.353	0.478	0.680	0.851
Medicaid Coverage Group									
Modified Adjusted Gross Income (MAGI)	0.114	0.240	0.240	0.237	0.243	0.243	0.239	0.236	0.242
				0.632	0.796	0.765	0.907	0.608	0.827
Healthy Horizons & Breast and Cervical Cancer	0.283	0.244	0.248	0.247	0.244	0.235	0.238	0.239	0.242
				0.834	0.653	0.168	0.269	0.330	0.541
Non-money Payment (NMP)	0.306	0.175	0.176	0.172	0.179	0.170	0.182	0.175	0.176
				0.395	0.738	0.447	0.489	0.867	0.976
Medically Needy Only (MNO)	0.257	0.255	0.250	0.253	0.249	0.264	0.263	0.266	0.252
				0.636	0.869	0.153	0.168	0.088	0.877
Medical Assistance Cost Sharing Aged	0.018	0.017	0.018	0.018	0.017	0.014	0.017	0.016	0.019
				0.735	0.530	0.120	0.715	0.447	0.867
Medical Assistance for Workers with Disabilities	0.021	0.068	0.066	0.073	0.068	0.073	0.060	0.067	0.068
				0.056	0.629	0.168	0.301	0.782	0.629
Other	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
				0.156	0.502	0.502	0.117	0.502	0.117
Observations	229584	31888	10630	7972	2657	2657	2658	2657	2657

Source: Medicaid and SNAP administrative data from the Pennsylvania Dept. of Human Services (DHS). This table reports average demographic characteristics of individuals that appear on the PA Medicaid outreach file provided by DHS to the Benefits Data Trust (BDT). Column (1) reports average characteristics for all individuals on the outreach file, including those who are already enrolled in SNAP. Column (2) reports average characteristics for households that have not been targeted by BDT and who are not enrolled in SNAP, according to administrative data. Column (3) includes those randomized into the control group, while columns (4)-(9) report average characteristics for those randomized into each treatment arm. Analytical p-values report the probability of rejecting the null hypothesis that a characteristic is the same for a given study arm (columns (4)-(9)) and the control group, column (3), and are provided below each mean.

* We define elderly individual as enrolled in Medicaid in PA (on the PA Medicaid list provided by DHS) and being 60 years or older as of October 31, 2015.

** We define a household as individuals sharing the same last name and address on the Medicaid outreach file.

A6.2. Balance Tests

Table A4 tests whether there are differences in the joint distributions of characteristics observed in the Medicaid outreach file for study groups that comprise comparison groups of interest. Specifically, we conduct a (stacked, block diagonal) regression on an indicator for "Treatment" relative to "Comparison" (as defined in the table below) and the observable characteristics listed below. We then report the F-test and analytic p-value of a test of the joint null hypothesis each observable characteristic is uncorrelated with treatment status. We include the following observable characteristics from the Medicaid outreach list:

- number of elderly individuals per "pseudo" household on Medicaid outreach list
- age of intended recipient (IR)
- sex of IR
- indicator for whether English is listed as primary language of IR
- monthly earnings of IR
- indicator denoting whether monthly earnings of IR is missing
- monthly unearned income of IR
- indicator denoting whether monthly unearned income of IR is missing
- indicator for whether or not IR lives in Pittsburgh
- indicators for whether IR is in particular Medicaid assistance categories, specifically: Healthy Horizons & Breast and Cervical Cancer, Modified adjusted gross income, Medicaid for Aged, Blind, or Disabled, General Assistance, Assistance for Aged, Blind, Disabled, Workers with disability, or Cost Sharing for Aged

Table A4: Stacked Regression Tests

Stacked Regression Balance Tests

			Results		
	Treatment Group	Comparison Group	F-statistic	P-value	N
Comparisons	(1)	(2)	(3)	(4)	(5)
Comparison 1:	HT ALL	Control	1.010	0.440	21259
Comparison 2:	LT ALL	Control	1.113	0.337	21259
Comparison 3:	HT ALL	LT Standard & Marketing	0.939	0.520	15943
Comparison 4:	Marketing (HT & LT)	Standard (HT & LT)	0.635	0.849	15943
Comparison 5:	LT Standard	LT Standard without postcard	0.955	0.501	5315
Comparison 6:	LT Framing	LT Standard	0.572	0.898	5314

Source: Medicaid and SNAP administrative data from the Pennsylvania Dept. of Human Services (DHS). This table reports results from stacked regressions which tests the null hypothesis that the correlation of each observable with treatment status is zero. We compare various study arms; column (1) reports the group that is assumed to be the treatment group for a given comparison, and column (2) reports the assumed comparison group. Columns (3) and (4) report the F-statistic and the analytic p-value associated with each stacked regression, respectively. Column (5) reports the sample size. We include the following observable characteristics from the Medicaid outreach list: number of elderly individuals per "pseudo" household on Medicaid outreach list; age of intended recipient (IR), sex of IR; indicator for whether English is listed as primary language of IR; monthly earnings of IR; monthly unearned income of IR; indicator for whether or not IR lives in Pittsburgh; and indicators for whether IR is in various Medicaid assistance categories (Healthy Horizons & Breast and Cervical Cancer; Modified adjusted gross income; Medicaid for Aged, Blind, or Disabled; General Assistance; Assistance for Aged, Blind, Disabled, Workers with disability, or Cost Sharing for Aged). For missing variables, such as earned and unearned income, we set the variable equal to the mean of the study population and include a dummy variable that is unitary only when that variable was missing as another covariate.

Column 1 and 2 state the treatment and comparison groups, respectively (e.g. Standard (HT & LT) v. Marketing (HT & LT)). Columns 3, 4, and 5 report the F-statistic, the analytical p-value, and the joint size of the examined study groups, respectively. Column 4 tells us that we cannot reject the null hypothesis that each observable characteristic is uncorrelated with treatment assignment across all comparisons of interest; that is, from these baseline measures, the randomization appears to have produced balanced study groups for our comparisons of interest.

A7. Projected Path from Outreach to Enrollment[24]

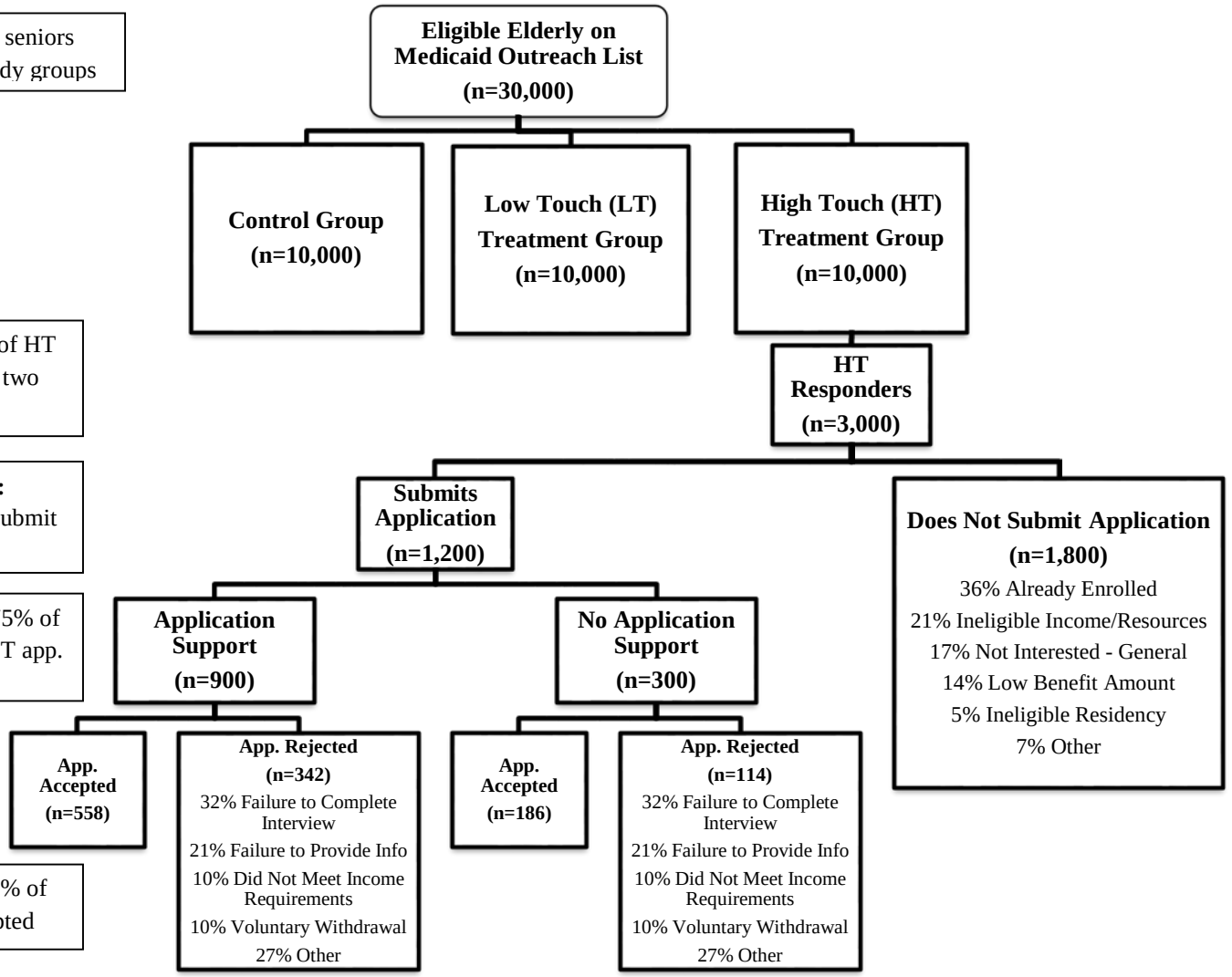
Randomization: eligible seniors are randomized into 3 study groups

Initial Response: ~30% of HT seniors respond to one of two outreach attempts

Application Submission: ~40% of HT responders submit an application

Application Support: ~75% of HT responders accept BDT app. support

Accepted by SNAP: ~62% of HT applications are accepted



[24] Numbers shown are projections based on BDT's historical experience (August 2012 - April 2015) doing SNAP enrollment outreach to a list of elderly individuals enrolled in Medicaid in Maryland. We used these estimates for informing some of our power calculations.

A8. Call Forwarding Script for Low Touch Intervention

A8.1. Introduction

DO NOT ASK FOR THE CALLER'S NAME OR SUBMIT IT IN THE SCRIPT

Hello, thank you for calling about SNAP. Could you tell me the nine digit beneficiary ID number located on the right of the letter you received?

(Wait for response)

If you received a postcard, this number is on the "address" side of the postcard on the right-hand side. (Write down number)

All Calls
Spanish Callers

Special Instructions:

Cannot locate nine digit number/ has questions

Phone Number: *800-760-4779*

Company Name: *SNAP*

Time Zone: *Eastern*

Closing Script:

Thank you for calling. Have a great day.

A8.2. All Calls

DO NOT ASK FOR THE CALLER'S NAME OR SUBMIT IT IN THE SCRIPT

Thank you. I am going to repeat that number back to make sure I have it correct. I have (Repeat nine-digit number). Is that correct?

(Be sure you gathered all 9 digits)

PAT: If caller gives any info other than 9 digit number, politely interrupt them and say"We only need the 9 digit number before we transfer your call to the Pennsylvania Department of Human Services."

YOU WILL BE CONDUCTING COLD OUT.

Thank you. We will now forward your call to a representative from the Pennsylvania Department of Human Services.

PAT: Using the Accept Call Box, Place The Caller On Hold:

1. Select "Department of Human Services" from the outbound drop down list and click "Cold Out".

2. Fill in Not Given for the Name, enter your Employee ID# in the Employee Number field.

3. Click "Submit"

A8.3. Spanish Callers & Cannot Locate Number

DO NOT ASK FOR THE CALLER'S NAME OR SUBMIT IT IN THE SCRIPT

We will now forward your call to a representative from the Pennsylvania Department of Human Services for further assistance.

PAT: Using the Accept Call Box, Place The Caller On Hold:

1. Select "Department of Human Services" from the outbound drop down list and click "Cold Out".

2. Fill in Not Given for the Name, enter your Employee ID# in the Employee Number field.

3. Click "Submit"