Communicating Program Eligibility: A Supplemental Security Income (SSI) Field Experiment

Jeffrey Hemmeter, John Phillips, Elana Safran, and Nicholas Wilson[*]

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Abstract: The Supplemental Security Income (SSI) program is estimated to have one of the lowest levels of take-up among federal programs in the United States. Among individuals 65 or older, take-up is thought to be particularly low, with estimates ranging from under 60 to about 72 percent of potentially eligible individuals receiving SSI. We conducted a randomized controlled direct mail field experiment with 4,016,461 individuals to test several key hypotheses about why take-up of this program is low. We find that communicating likely eligibility in a basic letter generated substantial increases in take-up in relative terms, yet the application rate in our study sample during the full nine-month follow-up period remained at less than 7%. Adding behaviorally-informed statements increased the effectiveness of these communications. Our results reveal a modest tradeoff between increasing applications and the conditional likelihood of award, as well as the award amount. We discuss explanations for our findings and implications for policymaking.

Keywords: aging; elderly; field experiment; social safety net; Supplemental Security Income
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[*] Hemmeter: Social Security Administration. Phillips: National Institutes of Health. Safran: Office of Evaluation Sciences in the U.S. General Services Administration. Wilson: Department of Economics, Reed College, nwilson@reed.edu. We thank Crystal Hall, Nathaniel Higgins, Ruirui Kuang, Jessica Leight, Rachel Vincent, Robert Weathers, David Weaver, and seminar participants at the 2018 APPAM Fall Research Conference, the 2019 Public Management Research Conference Workshop on Behavioral Insights in Government, and the Office of Evaluation Sciences for many helpful comments. We registered this study with the AEA RCT Registry (0002423). The findings, interpretations, and conclusions expressed in this paper are those of the authors and do not necessarily represent the views of the Social Security Administration or the other aforementioned individuals and agencies. All errors are our own.

1 Introduction

Estimates suggest that the Supplemental Security Income (SSI) program one of the lowest take-up rates among federal programs in the United States. Among individuals 65 or older, take-up is thought to be particularly low, with estimates ranging from under 60 percent to 72 percent of potentially eligible individuals receiving SSI (Strand et al. 2009, McGarry and Schoeni 2015).[1,2] Indeed, no other non-discretionary federal program has a take-up rate below 80% (Barnett and Wilson 2016). We conducted a randomized controlled field experiment with 4,016,461 Social Security beneficiaries to test several key hypotheses about why take-up of this large program among individuals age 65 and above is low among eligible individuals.

SSI is a program administered by the Social Security Administration (SSA) "designed to help aged, blind, and disabled people, who have little or no income" (Social Security Administration 2017a). This means-tested program offers payments to individuals in these categories. In 2017, the maximum monthly federal benefit for individuals was US$735. The month we began our experiment (September 2017), there were approximately 8.1 million beneficiaries of all ages who received federal SSI payments of roughly US$4.5 billion. Individuals age 65 and above comprised approximately 1 out of every 4 federal SSI recipients and nearly 1 out of every 3 adult SSI beneficiaries (Social Security Administration 2018).

Prior research has found that the elderly, particularly women, are at greater risk of poverty (e.g., Bridges and Gesumaria 2016, Anzick and Weaver 2001, Nicholas and Wiseman 2009, McGarry and Schoeni 2005) and generally have low levels of assets (Davies 2003). While there is evidence that SSI benefits reduce the rate of poverty for this group (Bailey and Hemmeter 2015), the low-income elderly population historically have had low participation in public benefits programs for which they are eligible, including Supplemental Nutrition Assistance Program (Cunnyngham 2018) and the Medicare Part D Low-Income Subsidy (Shoemaker et al 2012). As originally designed, SSI was thought to be mostly beneficial

[2] McGarry (1996) finds take-up of approximately 50-60% using the 1984 Survey of Income and Program Participation (SIPP). McGarry and Schoeni (2015) demonstrates that this level of take-up has been observed from program inception 1972 through the first decade of the 21st century.

to the elderly (Ball 1973, Berkowitz and DeWitt 2013). Given the potential role of SSI to provide additional financial security to seniors, the relatively low rates of program take up have been a long-standing policy question.

The existing economic literature on SSI has identified at least three main hypotheses about why take-up is low. One hypothesis about why take-up may be low among eligible individuals age 65 and above is that they are not aware that they are eligible (Social Security Administration 1976, Menefee et al. 1981, Warlick 1982, Hill 1990). SSA does not systematically notify potentially eligible individuals age 65 and above and cannot determine eligibility without an application and associated information on assets and income. SSA policy (POMS GN 00201.05) instructs staff to explore SSI eligibility for Old-Age Survivors and Disability Insurance applicants who allege disability or blindness or are within two months of age 65 or older, but there does not appear to be systematic post-entitlement outreach to determine if a beneficiary's situation has changed. Beneficiaries may, of course, learn about SSI benefits through SSA's website. A second hypothesis is that individuals underestimate or are confused about the magnitude of the potential SSI payment (McGarry 2002, McGarry and Schoeni 2015). A third hypothesis is that individuals perceive the application process as being confusing and burdensome (Warlick 1982, McGarry 1996, McGarry and Schoeni 2015).[3]

More broadly, recent work on communicating program eligibility and claiming decisions has highlighted the role of key psychological frictions in explaining the puzzle of low or incomplete take-up given the monetary incentives to apply. These include low awareness (e.g., Chetty et al. 2013, Armour 2018) and confusion (e.g., Liebman and Zeckhauser 2004), as in the SSI-specific literature. They also include procrastination (e.g., Madrian and Shea 2011) and inattention (e.g., Karlan et al. 2016).

We designed and implemented a randomized controlled field experiment using these insights with the aim of testing each of three key hypotheses about why SSI take-up among potentially eligible individuals age 65 and above is so low. We prepared four types of one-page letters intended to provide

[3] Deshpande and Li (2019) finds that application costs, particularly field office congestion, are a key barrier to SSI Disability Insurance applications.

information about SSI that address the three hypothesized reasons for low program take-up.[4] All letter types notified the recipient that SSA records showed that the recipient may be able to get SSI payments because they are age 65 or over. They also briefly explained what SSI is and provided basic information about how to apply for SSI.

The Basic Letter only included this basic information. The Maximum Benefit Letter added a statement about the maximum individual (or married) monthly payment of US$735 ($1,103) to the Basic Letter. The Simple Application Process Letter added a statement to the Basic Letter indicating that applying is simple and you only need to call a Social Security representative to apply. The Combined Letter combined the elements of the Maximum Benefit Letter and the Simple Application Process Letter.

We mailed notifications to 400,000 individuals age 65-80 who SSA administrative data suggested may be eligible for SSI yet were not currently receiving SSI.[5] The remaining 3,616,461 individuals in the sampling frame were not sent any notifications, as in current SSA practice, and comprise the control group. The four letter types were evenly distributed across the 400,000 individuals using randomized assignment, with 100,000 individuals receiving a given letter type. SSA mailed the letters on September 15, 2017 and we tracked SSI applications and awards through 3 months, 6 months, and 9 months.

We find substantial effects of the letters on applications and awards, particularly in relative terms. In the 3 months after we mailed the letters, 5.37% of individuals assigned to receive any letter applied for SSI compared to 0.45% of individuals assigned to receive no letter.[6] Similarly, at 3 months, approximately 1.74% of individuals assigned to receive any letter were awarded SSI compared to 0.18% of participants assigned to receive no letter. At 6 months and 9 months, applications and awards increased slightly among all participants.

Our results suggest that the most effective components of the letter were notifying likely eligible individuals of their potential eligibility status. For example, at 3-month follow-up the Basic Letter increased

[4] See Appendix A for our four letters.
[5] Our sampling frame excludes individuals with special notice option requests (e.g., Braille) and Spanish language notices. See Section 3.1 for the full sampling criteria.
[6] We use "applied" and "filed" interchangeably.

applications by 4.38 percentage points compared to no letter. We find smaller, yet important, effects of modifying the Basic Letter by adding a statement about the maximum benefit or a statement that the application process is simple. Adding the Maximum Benefit Statement and the Simple Application Process Statement increased applications at 3 months by 0.83 percentage points and 0.27 percentage points, respectively.

Our results reveal a modest tradeoff between increasing applications and the conditional likelihood of award. Our letters generated selection into applications along two observable outcomes. For example, at 3 months, among study participants applying for SSI, awards were made to less than 33% of individuals assigned to receive any letter compared to 40% of "No Letter" individuals.[7] Among study participants awarded SSI, mean monthly SSI benefits were US$199.62 in the pooled any letter arm and were US$274.85 in the control group arm. We discuss policy implications of this tradeoff in the Discussion section.

These findings make several key contributions to the existing literature. Among previous studies, Bhargava and Manoli (2015) and Finkelstein and Notowidigdo (2019) may be the most similar to ours in that they are direct mail field experiments designed to investigate the effects of psychological and economic frictions on take-up of a large federal government program (i.e., EITC and SNAP, respectively). Yet our study builds on these in six key ways.

First, we identify a tradeoff between increasing applications and the conditional likelihood of award. Among the nine different types of experimental interventions examined in Bhargava and Manoli (2015), one – "benefit display" – is associated with an increased denial rate.[8] Finkelstein and Notowidigdo (2019) finds no differences across study arms in the likelihood of award conditional on applying. In contrast, our results reveal a tradeoff for all letter types – albeit modest in magnitude – between increasing applications and the conditional likelihood of award.

[7] We use "awarded" and "allowed" interchangeably.
[8] As shown in Table 5 of Bhargava and Manoli (2015), "benefit display" increased the likelihood of denial by approximately 0.3 percentage points, or 3% relative to the control group mean.

Second, we are able to link study participants to SSI award amounts, yielding evidence indicating that there exists a further tradeoff between increasing applications and the magnitude of award amount conditional on being awarded SSI. Bhargava and Manoli (2015) does not provide evidence on the amount of EITC benefits received in response to their mailings, although it is reasonable to believe that a similar tradeoff may be operative in that setting. Finkelstein and Notowidigdo (2019) finds a tradeoff between applications and the magnitude of SNAP benefits conditional on being awarded SNAP, roughly similar in relative terms to the magnitude we identify.

Third, our results highlight the central role of informational barriers in explaining low public benefits take-up, reinforcing the findings in Bhargava and Manoli (2015) and Finkelstein and Notowidigdo (2019) that the basic act of notification and stating the potential benefit amount generated two of the largest marginal effects on take-up.

Fourth, we study a population (i.e., potentially low-income individuals age 65-80 from all 50 states in the United States and the District of Columbia) who comprise a disproportionate share of the low-income population and a disproportionate share of individuals eligible for federal benefits programs, yet are less likely to access many large benefits program. Similarly, Finkelstein and Notowidigdo (2019) studies the elderly (i.e., individuals age 60 and above) in Pennsylvania, whereas Bhargava and Manoli (2015) studies EITC non-filers of all ages in California.

Fifth, our sample size of 400,000 letter recipients is more than 10 times larger than the sample of 35,050 eligible for EITC and the sample of approximately 30,000 eligible for SNAP.

Finally, existing messaging (from any source) to the potential SSI eligible population about the program is scarce, whereas existing messaging about the EITC and SNAP are more common (e.g., tax preparation companies advertise EITC benefits to potential customers).

Our study appears to be one of the first "nudge" field experiments in the history of the Social Security Administration to demonstrate significant changes in program take-up and only the third such field

experiment in SSA history.[9] As such, we contribute to the existing economic literature on SSI take-up and take-up of other SSA programs. In highlighting the central role of communicating likely program eligibility in promoting SSI take-up, we build on previous non-experimental literature examining potential informational barriers on take up (e.g., Social Security Administration 1976, Menefee et al. 1981, Warlick 1982). Similarly, our evidence on the effects of adding maximum benefit statements and simple application process statements builds on previous non-experimental literature examining these issues (e.g., McGarry 2002, McGarry and Schoeni 2015; and Warlick 1982, McGarry 1996, McGarry and Schoeni 2015, respectively).

More broadly, we contribute to the economic literature on psychological frictions and low program take-up among vulnerable populations. Our findings demonstrate that it is feasible and potentially cost-effective to nudge the elderly at scale. Our study appears to be one of the largest U.S. direct mail field experiments presented to the public academic domain.

The rest of the paper is organized as follows: Section 2 describes SSI and the existing economic literature on SSI take-up. Section 3 outlines our experimental design and empirical strategy. Section 4 reports the results of our study. Section 5 discusses our results. Section 6 concludes.

2 Supplemental Security Income

2.1 Supplemental Security Income

In 1972, Congress passed legislation to create a federally funded and administered program called the Supplemental Security Income (SSI) program. SSI replaced state-run assistance programs that had been in

[9] In 2015, SSA sent one of four behaviorally-informed letters to approximately 50,000 SSI recipients age 18-50 reminding them to report any changes in earnings. The letters increased the likelihood of reporting by approximately 0.34 percentage points and there were not statistically significant differences across letter types (Zhang et al. 2020). In 2016, SSA sent a letter to approximately 44,000 individuals denied Disability Insurance (DI), with the aim of increasing the likelihood of successful transition to labor force participation and employment (OES 2019). The letter informed recipients about other services for which they may have been eligible (e.g., support provided by American Job Centers for vocational rehabilitation and employment). There was no difference in DI receipt between individuals assigned to receive the letter and the control group; SSA was not able to analyze the impact on other services.

operation since the Social Security Act of 1935, and which provided aid to the poor elderly regardless of their work record, as well as to the blind and the disabled (Ball 1973).

SSI is a monthly benefit administered by the Social Security Administration to people with limited income and resources who are disabled, blind, or age 65 or older. Federal payments under SSI are meant to guarantee minimum income levels, so that a recipient's monthly payment can be up to the guaranteed amount. In many states, SSI recipients are automatically eligible for Medicaid, and an SSI application is also an application for Medicaid. Medicaid provides health coverage for low-income individuals, both children and adults, and can help with medical costs not covered by Medicare, the federal health insurance program for people who are disabled or age 65 or older. States can also supplement the federal SSI payment, by providing additional cash assistance or food assistance for certain SSI recipients (Social Security Administration 2017c).

Eligibility is based on passing an income test and an asset test. The federal monthly payment is determined by subtracting an individual or couple's countable income from the federal benefit rate. The income disregards include the first US$20 of unearned income (e.g., Old-Age Survivors and Disability Insurance benefits), the first US$65 of earned income (e.g., wages and self-employment income), and half of any additional earned income. Additional unearned income reduces benefits US$1 for every US$1. Eligible individuals must also have countable assets of less than US$2,000 (or US$3,000 for a couple), not including ownership of a home, a car, or household items. There are several specific exclusions for what counts as income or assets, which also depend on specific living arrangements, and other restrictions on eligibility (Social Security Administration 2017b).

Descriptive statistics for SSI recipients are typically reported in three age group categories: children (younger than age 18), working-age adults (18-64), and the aged (65 or older).[10] Among recipients 65 or older, about 70 percent are female, and 40 percent live alone. (This is compared to working-age adult recipients, who are more likely to be male and less likely to live alone.) Almost all recipients 65 or older

[10] SSI recipients who are both disabled and aged 65 or older are counted in the aged category for descriptive statistics presented here.

have Medicare (99 percent) and Medicaid (97 percent). In 2013, most of the family income for recipients 65 or older was provided by the combination of Social Security benefits (37 percent) and SSI payments (32 percent). Without counting SSI payments, the poverty rate among SSI recipients 65 or older would be about 58 percent, compared to the actual rate (44 percent), indicating that SSI payments effectively reduce the poverty gap for this population by 69% (Bailey and Hemmeter 2015).

Typically, individuals apply for SSI through an appointment, which they can make by phone or online. Applicants must provide information related to eligibility, and prepare to share original documents to show proof of age, citizenship, income, assets, living arrangements, and relevant medical information. For applicants who are 65 or older, the application process is simpler: they need not provide medical information and, in some cases, can apply by phone without making an appointment. Once an individual receives the benefit, SSA will re-determine their eligibility by reviewing income, assets, and living arrangements every one to six years (Social Security Administration 2017b).

2.2 Take-Up in Supplemental Security Income

Despite the goals of the program, many individuals aged 65 or older who are potentially eligible for the program are not enrolled. It is difficult to estimate the gap between eligibility and enrollment, because SSI is a means-tested program that relies on individual income and assets. Survey data from the Health and Retirement Study suggest that less than 60 percent of individuals 65 or older potentially eligible for SSI receive it (McGarry and Schoeni 2015), and this rate has been documented for the last three decades of the program (Menefee et al. 1981, Warlick 1982, McGarry 1996, McGarry 2002, Elder and Powers 2004). However, other simulations conducted by the Social Security Administration using self-reported data from the Survey of Income and Program Participation matched to administrative records on actual SSI participation and Old-Age Survivors and Disability Insurance (OASDI) receipt and amount estimate that participation rates are closer to 72 percent for the elderly (Strand et al. 2009).

A study by the Michigan Retirement Research Center focusing on correlates of SSI enrollment found that among likely eligible individuals, the calculated benefit for participants is nearly US$100 per

month higher than for eligible non-participants, and they are more likely to be nonwhite and have less schooling. Among eligible non-participants, the likelihood of receiving a transfer from their adult children or other family members is approximately twice as high as both participants and non-eligible individuals, at 11.1 percent. This is suggestive of family support substituting for public assistance, and that enrollment is related to need (McGarry and Schoeni 2015). Other analysis has found a positive correlation between living in a state with automatic Medicaid eligibility upon SSI receipt and SSI take-up (Elder and Powers 2004). Among the non-elderly, SSI participation decreased in states that expanded Medicaid coverage with the Affordable Care Act, when individuals were able to access Medicaid without participating in SSI (Burns and Dague 2017), supporting the hypothesis that the expected value of the SSI benefit affects take-up.

SSA does not have available administrative data on the number of individuals eligible who are 65 or older, because eligibility depends on factors that are not captured by SSA administrative data for people who have not applied and do not receive benefits (for example, assets, citizenship, and residency requirements). However, SSA does have existing administrative data on pay status for retirement and disability payments administered by SSA. This data can be leveraged to identify potentially eligible individuals whose Social Security income is below the level for eligibility for SSI.

3 Experimental Design

Researchers at SSA and at the Office of Evaluation Sciences (OES) collaborated in the design, implementation, and analysis of this field experiment. OES is part of the General Services Administration (GSA) and advises U.S. federal agencies on incorporating and testing insights from the behavioral sciences on how to improve government effectiveness.

We designed our experiment to test the three aforementioned hypotheses about why SSI take-up is low. We filed an analysis plan including study design with the American Economic Association (AEA) RCT Registry on September 14, 2017, the day before SSA mailed our letters (AEARCTR-0002423). Below, we describe key elements of this plan.

3.1 Sample selection

We used the following criteria to determine sample selection: Individuals must be age 65-80; not currently receiving or applying for SSI; in current pay status of OASDI programs (i.e., receiving a payment for Social Security); currently receiving a monthly payment less than the 2017 SSI Federal Benefit Rate of US$735/month plus US$20[11]; not living outside of the United States; not missing a mailing address; did not request Special Notice Option; and have a local SSA office associated with their record. The selection criteria were designed to use existing administrative data from SSA's Master Beneficiary Record to identify individuals potentially eligible for SSI. Notably, about 86% of the elderly receive OASDI benefits (SSA 2017b) and many of the remaining receive pensions that preclude them from receiving OASDI benefits; hence, the sample is not representative of all adults 65 or older. In addition, some SSI eligibility criteria, such as savings or other financial assets, are not observed in the Master Beneficiary Record and therefore we expected some study participants ultimately would be found to be ineligible. Randomization was conducted at the individual level by SSA.

3.2 Interventions

Our experiment tests four behaviorally-informed letters against a control condition (i.e., no letter, which is the SSA's current standard procedure). The four letters are:

Letter #1: Basic Letter,

Letter #2: Maximum Payment Letter,

Letter #3: Simple Application Process Letter, and

Letter #4: Combined Letter.

Appendix A presents the four letters. All letters include the basic information listed on Letter #1, allowing us to measure the incremental effect of the information on a more detailed letter (e.g., the maximum payment statement on Letter #2) by comparing take-up among recipients of the more detailed letter (e.g.,

[11] This accounts for SSI policy, which does not count the first US$20 in unearned income.

Letter #2) to take-up among recipients of Letter #1. Comparing take-up among recipients of Letter #1 to take-up among the control group (i.e., individuals not receiving a letter) yields an estimate of the effect of only being notified of likely eligibility.

Each treatment condition had a sample size of 100,000 letters, yielding a total letter sample size of 400,000 letters. The total sample size for our study was 4,016,461 individuals, with over 3.6 million individuals assigned to the control study arm.

3.3 Data

Data come from the administrative records of the SSA. These are individual-level monthly data.

The primary outcomes of interest are SSI application filed and SSI application allowed. As secondary outcomes, we examine: SSI application denied, average amount of SSI payments received for months with SSI payments, total amount of SSI payments received, received SSI for at least one month, and number of months received SSI.

We measure these outcomes at 3, 6, and 9 months. In addition to these outcomes of interest for our regression analysis, we examine the reasons SSI applications are denied by calculating the frequency of each reason SSI application is denied. Reason SSI application is denied is conditional on applying, and is thus not an outcome of interest in the regression analysis; instead we provide descriptive statistics on denial. The data available in the record also include a small number of covariates (e.g., age, sex, state of residence).

3.4 Treatment effects

Our primary analysis is an intent-to-treat (ITT) specification. The ITT specification does not assume that intended letter recipients actually received or read the letter, yielding treatment effects corresponding to the real-world setting in which policymakers are able to mail letters yet are not able to ensure that intended

recipients are aware of the letter or its contents. We estimate the causal effect of the intent to treat using linear ordinary least squares (OLS) regression.[12]

Part 1 our analysis of treatment effects focuses on measuring the effects of each of the letters. Part 2 of our analysis of treatment effects focuses on measuring the effects of each of the letter elements, that is, the specific eligibility or maximum payment statements.

Part 1: Effects of letters

The first part of our analysis of treatment effects focuses on measuring the effects of each of the letters. We pool the full study sample (i.e., control and all treatment observations) to form our main regression sample.

We regress the outcome of interest (e.g., SSI application filed) for individual *i* on the full set of indicator variables for each of the letters (e.g., the Basic Letter). That is, we estimate the parameters of the following regression equation:

$$outcome_i = \propto + \beta_1 BasicLetter_i + \beta_2 MaximumPaymentLetter_i + \beta_3 SimpleApplicationLetter_i + \beta_4 CombinedLetter_i + \varepsilon_i \qquad (1)$$

The coefficient on the Basic Letter indicator variable, β_1, is the estimate of the causal effect of the intent to treat of the Basic Letter. The coefficient on the Maximum Payment Letter indicator variable, β_2, is the estimate of the causal effect of the intent to treat of the Maximum Payment Letter. The coefficient on the Simple Application Letter indicator variable, β_3, is the estimate of the causal effect of the intent to

[12] The pre-analysis plan called for us to augment this analysis with a local average treatment effect (LATE) calculation. The LATE calculation provides evidence on the effect of the letters for the fraction of individuals who we assume will have actually received the letters, yielding treatment effects corresponding to the causal effects of the letters on the fraction of intended recipients who likely received the letter. We were unable to track returned letters, so a true LATE calculation is not possible. We can approximate this by assuming a 10% return rate for the study letters (i.e., a 90% delivery rate for the study letters), which is similar to previous SSA experience with return rates for similar mailings using administrative records. Such an analysis would be speculative, and we elected not to present the results in the text.

treat of the Simple Application Letter. The coefficient on the Combined Letter indicator variable, β_4, is the estimate of the causal effect of the intent to treat of the Combined Letter.

Part 2: Effects of letter elements (i.e., statements on letters)

The analysis of treatment effects in equation (1) focuses on the effect of the specific letter received by each treatment on the outcomes relative to the no-letter control group. It is also of interest to examine the effects of each letter element (that is, the eligibility, simply application, or maximum payment statements) because each element addresses a different behavioral barrier; this may be useful when considering what barriers are most prominent in the decision to apply for SSI. To isolate the element-specific effects, we pool the full study sample (i.e., control and all treatment observations) and regress the outcome of interest (e.g., SSI application filed) for individual i on the full set of indicator variables for each of the letter statements and the interaction between the maximum payment statement and the simple application process statement. That is, we estimate the parameters of the following regression equation:

$$\begin{aligned} outcome_i = \propto + & \beta_1 eligibilitystatement_i + \beta_2 maximumpaymentstatement_i \\ & + \beta_3 simpleapplicationstatement_i \\ & + \beta_4 maximumpaymentstatement * simpleapplicationstatment_i + \varepsilon_i \end{aligned} \qquad (2)$$

where $eligibilitystatement_i$ is an indicator variable equal to one if the study participant was assigned to receive a letter with the eligibility statement (i.e., any of the letter arms) and zero otherwise; $maximumpaymentstatement_i$ is an indicator variable equal to one if the study participant was assigned to receive a letter with the maximum payment statement (i.e., the Maximum Benefit Letter and the Combined Letter) and zero otherwise; and the remaining variables are defined similarly. The coefficient on the eligibility statement indicator variable, β_1, is the estimate of the causal effect of the intent to treat of the eligibility statement. The coefficient on the maximum payment statement indicator variable, β_2, is the

estimate of the causal effect of the intent to treat of the maximum payment statement. The coefficient on the simple application statement indicator variable, β_3, is the estimate of the causal effect of the intent to treat of the simple application process statement. The coefficient on the interaction term (i.e., maximum payment statement indicator variable interacted with the simple application process statement indicator variable), β_4, is the estimate of the causal effect of the intent to treat of the interaction of the maximum payment statement and simple application process statement.

In additional specifications for both Equation (1) and Equation (2), we add control variables such as study participant age, sex, an estimate of potential SSI payment amount (i.e., maximum individual Federal SSI benefit amount plus $20 minus total OASDI payments), previously applied for SSI, and state of residence. We also test for several sets of heterogeneous treatment effects, including for three other characteristics—whether the beneficiary was subject to the Windfall Elimination Prevision (WEP) or Government Pension Offset (GPO), beneficiary type (Worker, Spouse, Widow, Other), and prior earnings. Because we did not identify them prior to our experiment, we do not include these in our primary regressions. However, we do include exploratory results in our heterogeneity analyses.

If an individual is subject to WEP or GPO provisions, they have higher income than the Social Security benefit would indicate, reducing their likelihood of SSI eligibility. WEP and GPO are two provisions that prevent beneficiaries who receive pensions from non-Social Security covered work from receiving larger Social Security benefits due to the progressive nature of the benefit calculation (WEP) or from receiving certain dependent benefits if they have their own pension (GPO). See Gustman et al. (2014) for more information on these provisions.

We also did not differentiate between various types of Social Security beneficiaries prior to the start of the experiment. In addition to providing benefits to retired and disabled workers, Social Security provides benefits to their dependents. The dependent categories include spouses of living beneficiaries, widows, and children who may have other sources of income and thus be less likely to be eligible for SSI.

We did not originally intend to control for earnings in this study because the measure of earnings available to us at the time of mailing (April 2017) had a significant lag (calendar year 2015) and was only

available on an annual basis (compared SSI's monthly earnings rules). SSI's use of contemporaneous earnings to adjust payments coupled with a generally high labor force exit rate after age 65, we thought, would make such earnings irrelevant. In addition to looking at whether an individual had recent earnings, we also conducted exploratory analyses of whether those with earnings in 2016 that were high enough to make the beneficiary ineligible for SSI (i.e., about $18,400) responded differently than those with earnings below that threshold.

In all regression specifications, we estimate heteroscedasticity-robust standard errors and cluster our standard errors at the state level. Although treatment assignment varied at the individual level, institutional details about SSI (e.g., its link with Medicaid) vary at the state level, suggesting that an unadjusted error term may not satisfy the assumption of uncorrelated shocks within states implied by not clustering standard errors at the state level.[13]

4 Results

4.1 Balance checks

We conduct balance checks on study randomization as follows. For each of the following variables, we calculate sample means and standard deviations for the control group, for each of the treatment arms, and for "any letter" (i.e., pooled treatments): age, sex, potential SSI payment, previously applied for SSI, and state. We use t-tests to test for equality of means (or proportions) for all variables except state of residence and Chi-squared tests to test for equivalence of distribution for state of residence. We interpret the randomization as having resulted in balanced assignment if the fraction of tests that reject the null hypothesis of no difference in means (or proportions or distributions) is less than 10%.[14]

[13] Clustering standard errors at the state level is not driving our results. We conservatively pre-specified that we would cluster our standard errors at the state level, so that is what we present as our main analysis.

[14] Our pre-analysis plan specified that if more than 10% of tests reject the null hypothesis of no difference, then we would measure these differences relative to the full sample means and interpret the randomization as having resulted in balanced assignment if these differences were less than 1% relative to the full sample means.

Table 1 presents the results of the balance checks. None of the differences in observable characteristics are statistically significant and the magnitude of the differences is always very small. Thus, assignment to a letter arm does not appear to be associated with differences in observable characteristics.

4.2 Main Results

4.2.1 Effects of Letters

Figure 1 displays the percentage of participants applying for SSI and the percentage awarded SSI at 3-month follow-up by letter type. The first set of columns present results for "No Letter", the second set of columns present pooled results for "Any Letter", and the remaining columns present results separately by letter arm. Among individuals in the "No Letter" arm, 0.45% applied for SSI and 0.18% (40.0% of applicants) were awarded SSI during the 3-month follow-up period. Among "Any Letter" individuals, 5.37% applied for SSI and 1.74% (32.4% of applicants) were awarded SSI. In relative terms, these are large differences with "Any Letter" individuals being 1093.3% more likely to apply and 867.7% to be awarded SSI than "No Letter" individuals. Letters that included the Maximum Benefit Statement (i.e., "Maximum Letter" and "Combined Letter") were particularly effective, though application rates were at least 4.82% and award rates exceeded 1.62% in each of the letter arms.

Figure 2 presents mean monthly award amount at 3-month follow-up by letter type, conditional on receiving SSI. Among "No Letter" individuals, the mean monthly award amount was $274.85. In contrast, the mean monthly award amount among pooled "Any Letter" individuals was $199.62, a decrease of 27.4% relative to the "No Letter" individuals. As with the application and award results, letters that included the Maximum Benefit Statement generated slightly larger award amounts conditional on receiving SSI. However, these differences are fairly small in relative terms; approximately 2-3% relative to "Basic Letter" individuals.

Figure 3 displays months on SSI at 3-month follow-up by letter type, conditional on receiving SSI. "No Letter" individuals received SSI for an average of 2.27 months during the 3-month follow-up period. "Any Letter" individuals received SSI for an average of 2.38 months, or an increase of 4.8% relative to "No

Letter" individuals. In contrast to the applications, awards, and award amounts results, individuals in letter arms that included the Maximum Benefit Statement received SSI for slightly shorter durations than individuals in letter arms assigned to receive letters without the Maximum Benefit Statement. Yet these differences are small in relative terms (i.e., an approximately 1.3% decrease).

Figures 4-6 repeat these analyses for the 6-month follow-up period and Figures 7-9 repeat them for the 9-month follow-up period. At the 6-month and 9-month follow-up periods, individuals in the "Any Letter" arm remained much more likely to have applied and to have been awarded SSI than individuals in the "No Letter" arm, although the relative effect of the letters is somewhat diminished at longer follow-up periods. Mean monthly SSI payment conditional on SSI receipt was slightly lower at 6-month and 9-month follow-up compared to 3-month follow-up for all study arms, yet the difference between the "No Letter" group and the "Any Letter" group remained substantial (i.e., approximately $60). Mean number of months on SSI conditional on SSI receipt increased for all study arms over time and the gap between the "No Letter" group and the "Any Letter" group increased from 0.11 months at 3-month follow-up to approximately 0.75 months and 1.5 months at 6-month and 9-month follow-up, respectively.

Table 2 presents regression estimates of the effects of the letters on SSI applications and awards. That is, it presents the regression estimates of the parameters in Equation (1). Columns (1)-(4) examine the effects on the likelihood of "Applied" for SSI, the likelihood of "Awarded" SSI, "Average Monthly Payment" (in months receiving SSI), and "Number of Months Received", respectively, all at 3-month follow-up. Columns (5)-(8) repeat this analysis for 6-month outcomes. Columns (9)-(12) repeat this analysis for 9-month outcomes.

At 3-month follow-up, the letters had generated large effects, in relative terms, on the likelihood of applying for SSI. For example, the point estimate on "Basic Letter" in Column (1) indicates that assignment to receive the Basic Letter increased the likelihood of applying for SSI during the 3-month follow-up period by 4.38 percentage points (p-value<0.01). This is a large effect in relative terms, more than a ten-fold increase relative to the "No Letter" mean of 0.45%. The letter types that included additional letter elements (e.g., the "Maximum Benefit" letter) generated larger increases in the likelihood of applying for SSI, yet

the incremental effect of those letters above and beyond the "Basic Letter" appears to be smaller than the main effect of the "Basic Letter". We explore the reasons for the heterogeneity by letter type in more detail when we examine the effects of the letter elements on applications and awards. In any case, each of the letter types generated increases in 3-month applications of between 4.38 and 5.44 percentage points.

The effects of the letters on the likelihood of being awarded SSI at 3-month follow-up are also large relative to the "No Letter" group, yet there is a substantial gap between the effects on applications and on awards. For example, the point estimate on "Basic Letter" in Column (2) indicates that assignment to receive the Basic Letter increased the likelihood of being awarded SSI during the 3-month follow-up period by 1.49 percentage points (p-value<0.01). The letter types that included additional letter elements (e.g., the "Maximum Benefit" letter) generated seemingly similar increases, yet the effect sizes across letter types vary by up to 10%. Notably, the letter types that included the maximum benefit statement appear to have larger effects on the likelihood of being awarded SSI than do the other letter types, approximately 0.15 percentage points, or approximately 10% relative to the "Basic Letter" effect. Despite the larger effect of the "Basic + Simple Letter" than of the "Basic Letter" on applications, the "Basic + Simple Letter" did not have a larger effect on the likelihood of an award than did the "Basic Letter".

The results in Column (3) reveal a substantial tradeoff between the volume of applications and award amounts conditional on receiving SSI. For example, the point estimate on "Basic Letter" in Column (3) indicates that assignment to receive the Basic Letter decreased the average monthly award by $79.48 (p-value<0.01), or approximately 29% compared to the "No Letter" mean award amount.

The results in Column (4) indicate that not only did the letters encourage individuals who would not have otherwise applied for SSI to apply for benefits, but the letters caused individuals to apply for and receive SSI earlier. For example, the point estimate on "Basic Letter" in Column (4) indicates that assignment to receive the Basic Letter increased the number of months receiving SSI by 0.126 months (p-value<=0.01), or approximately 5% relative to the mean number of months in the No Letter study arm.

The effects of the letters on applications at 6-month and 9-month follow-up are larger than at 3-month follow-up, consistent with the letters having caused individuals who would have otherwise not

applied to apply, rather than simply shifting future applications to the present. For each of the letters, the effect at 6-month follow-up is at least a 4.49 percentage point increase in the likelihood of applying and at least a 1.57 percentage point increase in the likelihood of being awarded SSI. At 9 months, these numbers are 4.49 and 1.61, respectively.

Over time, the effect of the letters on number of months received SSI increases and the tradeoff between increasing the volume of applications (and of awards) and award amounts decreases. By 9 months, the letters increased the number of months receiving SSI by at least 1.4 months (p-values<0.01), an increase of more than 25% compared to the "No Letter" mean of 5.54 months. By 9 months, the letters were associated with less than a $63 decrease in award amount, or approximately 25% relative to the "No Letter" mean of $245.04.

4.2.2 Effects of Letter Elements

Table 3 presents the effects of the letter elements on SSI applications and awards. Specifically, it presents the regression estimates of the parameters in Equation (2). Columns (1)-(4) examine the effects on the likelihood of "Applied" for SSI, the likelihood of "Awarded" SSI, "Average Monthly Payment" (in months receiving SSI), and "Number of Months Received", respectively, all at 3-month follow-up. Columns (5)-(8) repeat this analysis for 6-month outcomes. Columns (9)-(12) repeat this analysis for 9-month outcomes.

The results in Columns (1), (5) and (9) of Table 3 illuminate some of the reasons why the letters were effective at increasing applications. First, the point estimate on "Any Letter" consistently indicates an effect size of 4.38 percentage points or larger (p-value<0.01), invariant of follow-up period, suggesting that the most important element of the letters was just the act of notifying likely eligible of this status. Second, the point estimate on "Maximum Benefit Statement" consistently indicates an effect size of 0.84 percentage points or larger (p-values<0.01), invariant of follow-up period, and the point estimate on "Simple Application Statement" suggests an approximately 0.27 percentage point effect (p-value<0.01). Thus, the effect of adding the "Maximum Benefit Statement" was approximately 3 times the effect of

adding the "Simple Application Statement".[15] Third, the point estimate on the interaction term (i.e., "Maximum" and "Simple") is a precisely estimated zero, indicating that although each of the additional statements were effective at increasing applications there were no positive (or negative) interaction effects.

The results in Columns (2), (6) and (10) of Table 3 reveal differences in whether letter elements were able to increase the likelihood of being awarded SSI. Depending on the follow-up period, the "Basic Letter Content" increased the likelihood of award by between 1.49 and 1.66 percentage points (p-values<0.01), or by between approximately 300% and 700% compared to the likelihood of award among "No Letter" individuals. Adding the "Maximum Benefit Statement" increased the likelihood of award by between 0.16 and 0.20 percentage points (p-values<0.01), or by approximately 10% compared to the increase associated with the "Basic Letter Content". In contrast, the "Simple Application Statement" did not increase awards and the point estimate suggests it was associated with a small, albeit statistically insignificant, reduction in the likelihood of award. There is no evidence of an interaction effect between the two added statements.

The results in Columns (3), (7) and (11) of Table 3 indicate that the "Basic Letter Content" reduced the average payment amount and increased the number of months received SSI. None of the other letter elements were associated with substantial or statistically significant differences in award amounts or in duration received.

Tables 4 and 5 present the effects of the letters and letter elements on additional outcomes. In each table, Columns (1)-(3) examine the effects on the likelihood of "Received SSI for at Least One Month", "Total Amount of SSI Payments Received", and "Application Denied", respectively, all at 3-month follow-up. Columns (4)-(6) repeat this analysis for 6-month outcomes. Columns (7)-(9) repeat this analysis for 9-month outcomes.

[15] We do not interpret this as indicating that perceptions about a confusing or burdensome application process are not a major barrier to applying. Our Basic Letter was fairly straightforward, possibly alleviating perceptions about a confusing or burdensome application process and lessening the benefit of additional simplifying statements (as in the "Simple Application Letter").

The results in Tables 4 and 5 indicate several key facts that are consistent with the evidence presented thus far. First, the letters increased the likelihood individuals received SSI for at least one month. Second, average total payments received in the letter arms was lower than in the "No Letter" arm. Third, while the letters were associated with increased denials (conditional on application) at 3 months, they were associated with reduced denials at 6 months and 9 months.[16]

4.3 Robustness Checks

Tables 6-9 present the results of including sociodemographic controls in the regressions presented in Tables 2-5, respectively. Throughout, including sociodemographic controls has virtually no effect on the point estimates or the associated standard errors. With 100,000 individuals in each study arm, a study sample of over 4,000,000 individuals, and randomized assignment to study arm, the extreme robustness of our results to these controls is not surprising.

4.4 Heterogeneity Analyses

4.4.1 Age

Table 10 displays the results of allowing for heterogeneous effects of the letters by age, where the omitted age category is age 65. Regardless of the letter type, the letter had a smaller effect on the likelihoods of applying for SSI and of being awarded SSI for older individuals than for younger individuals. For example, for each of the letter types, the letters were approximately 4-5 percentage points (i.e., 50-60%) less effective at increasing applications among individuals age 75-80 compared to individuals age 65.

[16] As specified in our analysis plan, we augment our ITT estimates in Sections 4.2.1 and 4.2.2 with back-of-the-envelope calculations for the LATE. We do not have data on whether intended recipients received, opened, and read the letter. Nor do we have randomization assignment compliance data for the control group. In lieu of exact data on randomization assignment compliance, we assume a 10% return rate for the study letters (i.e., a 90% delivery rate for the study letters) based on administrative data from previous SSA experience with return rates for similar mailings. Under this assumption, the back of the envelope LATE for the effect of the "Combined Letter" on the likelihood of application is 6.20 percentage points and the likelihood of award of 2.08 percentage points. Similarly calculations apply to the other letters and letter elements. We interpret these calculations as the causal effects of the letters and letter elements on the fraction of intended recipients who likely received the letter.

Similarly, for each of the letter types, the letters were approximately 2.5 percentage points (i.e., 80%) less effective at increasing the likelihood of award among individuals age 75-80 compared to individuals age 65. Differences by age in the effects of the letters on award amounts and months received are small and typically statistically insignificant.

4.4.2 Potential SSI Payment Amount

Table 11 displays the results of allowing for heterogeneous effects of the letters by potential SSI amount. Potential SSI amount refers to the estimated monthly payment at the time that the letters were generated, based on current total monthly OASDI benefit in SSA records. The results indicate that the letters were less effective among individuals with a greater potential SSI amount. For example, the effects of the letters on the likelihood of application at 3 months was between 0.3 and 0.4 percentage points smaller (p-value<0.01) for each US$100 increase in potential SSI amount, a decrease of approximately 50%. For the likelihood of award, this difference in effectiveness ranged from 0.099 and 0.176 percentage points (p-values<0.01), a decrease of between approximately 50-100% relative to the likelihood of award when potential SSI amount is zero. For the number of months received, this difference in effectiveness ranged from between approximately 0.051 and 0.086 months (p-values<0.01).

4.4.3 State of Residence Bundles Medicaid and SSI

Table 12 displays the results of allowing for heterogeneous effects of the letters by whether the individual resides in a state that bundles Medicaid and SSI (i.e., SSI includes an application for Medicaid). The results indicate that the letters were more effective at increasing application and award likelihoods in bundled states, as expected. For example, the effects of the letters on the likelihood of application at 3 months was between 1.52 and 1.92 percentage points greater (p-value<0.01) in bundled states than in states that do not bundle Medicaid and SSI, an increase of approximately 50%. For the likelihood of award, this difference in effectiveness ranged from 0.13 and 0.29 percentage points (p-values<0.01), an increase of

between roughly 10-20% relative to the likelihood of award in states that do not bundle. There are not clear differences by bundling status in the effects of the letters on award amounts or the timing of awards.

4.4.4 WEP/GPO, Beneficiary Type, and Recent Earnings

Heterogeneity analysis by Age, Potential SSI Amount, and Medicaid State was pre-specified. We conducted additional exploratory heterogeneity analyses by WEP/GPO, beneficiary type, and recent earnings based on reviewer comments. Table 13 displays the results of allowing for heterogeneous effects of the letters by whether the beneficiary's benefit amount was affected by the WEP/GPO provisions, which would indicate that the individual has a higher income than the Social Security payment used to identify the sample. Those subject to the WEP/GPO provisions are generally less likely to apply for or be awarded SSI, as expected. The effects of the letters on the likelihood of application, for example, range from negative 4.44 to negative 5.67 percentage points (p-value<0.01) over the observation period, largely but not completely reversing the effect of the letters. Thus, those *not* subject to the WEP/GPO are much more likely to apply for or be awarded SSI over the follow-up period. Given that, it follows that we find no difference in SSI amount or months receiving SSI among those who eventually do.

Relative to Workers who are receiving a Social Security benefit on their own record, Spouses (Widows) are less (more) likely to apply for or receive SSI (Table 14). All the letter types appear to trigger more applications and awards for Widows, but fewer applications and awards for Spouses, relative to Workers. The Maximum Benefit letter appeared to be particularly effective for Widows (effect on application of 3.45 percentage points after nine months, p-value<0.01 vs. effect about half that size for the other letter types) Many of the results for the "Other" benefit group (mainly children) are not significant. This is consistent with the hypothesis that those with (without) other sources of income would have a lower (higher) likelihood of being eligible for SSI. This is suggestive, though, because we do not observe other contemporaneous sources of income for any beneficiary type. One explanation could be that those individuals have not yet figured out alternatives for income (like family support), which is consistent with the increased impact at age 65 (vs older age groups).

The results (Table 15) do not substantively change our overall findings related to the main effects when we explored the effects of prior earnings—in general, the two letters with maximum benefit language had slightly higher coefficients than the other letters, but all were statistically significant and within one percentage points.[17] Somewhat unexpectedly, those with earnings were generally more likely to apply for SSI (and be awarded benefits) than those without earnings. However, each of the letters resulted in Social Security beneficiaries who would be earnings-ineligible for SSI slightly less likely to apply than those who would not be found ineligible due to high earnings. In additional analyses, we found earnings a year or two prior to the mailing had similar effects. While these analyses are exploratory, they do suggest that additional care must be taken if earnings are to be used to target any future mailings.

4.5 Denials

We explored reasons for SSI denial, disaggregated by study arm assignment. At 3 month follow-up, financial reasons (e.g., income exceeding the eligibility threshold) were the most common reasons for denial. Finance-based denials comprise, for example, 0.3% of participants in the pooled "Any Letter" study arm and 0.1% of participants in the "No Letter" (i.e., pure control arm), or approximately 85% and 60% of denied or not-yet-decided claims in those two study arms, respectively. By 9 month follow-up, 3.3% and 0.3% of participants in the "Any Letter" and "No Letter" study arms received this outcome, respectively (or, in relative terms, approximately 89% and 75% of denied or not-yet-decided claims outcomes in those two study arms).

5 Discussion

Our letters generated substantial increases in relative terms in applications and awards over the course of the study. Individuals assigned to receive any letter were six times as likely to apply for SSI and five times

[17] Table 15 focuses just on two outcomes—application and award—and the effect of program eligibility due to earnings and OASDI. Earnings-based regressions exploring the effects of the presence of earnings 1 year before the year of the mailing, 2 years before the year of the mailing, in either of the 2 years before the mailing, and in any of the 5 years before the mailing are available upon request.

as likely to be awarded SSI as compared to individuals assigned to receive no letter. Individuals assigned to receive any letter who were awarded SSI received an average of approximately $185 per month for approximately 7 months during the study period.

The basic act of notifying individuals that SSA records indicate that they may be eligible for SSI appears to have been the single most important letter element. For example, the Basic Letter increased 9 month applications and awards by 4.49 and 1.66 percentage points respectively.

Adding behaviorally-informed statements increased the effectiveness of these communications. The Maximum Benefit Statement appears to have been particularly effective. For example, it increased applications and awards at 9 months by 0.84 and 0.18 percentage points, respectively. In contrast, although the Simple Application statement was associated with an increase in applications at 9 months, it was not associated with an increase in awards at 9 months. There is no evidence of a substantial interaction effect between the Maximum Benefit Statement and Simple Application Statement.

Our results reveal a modest tradeoff between increasing applications and the conditional likelihood of award. Our letters generated a large increase in applications, yet also generated modest selection into applications along two key observable outcomes. Among study participants applying for SSI, by the 9 month follow-up awards were made to less than 38% of individuals assigned to receive any letter compared to approximately 54% of individuals assigned to receive no letter. Among study participants awarded SSI, at 9 month follow-up mean monthly SSI benefits were US$185.38 in the pooled “Any Letter” arm and US$245.04 in the “No Letter” arm.

Adding behaviorally-informed statements increased this tradeoff by a relatively small amount. At 9 month follow-up, nearly 40% of Basic Letter arm participants who applied for SSI had been awarded SSI. Among Maximum Benefit Letter, Simple Letter, and Combined Letter arm participants this figure was 37.4%, 37.1%, and 36.7%, respectively. For all of the letters and elements we tested, any of the experimental conditions that increased applications also had the joint effect of increasing awards while decreasing the conditional award likelihood.

Heterogeneity analyses yield three key findings. First, the letters were less effective at increasing applications for older individuals. This suggests possibly targeting letters to individuals when they first turn age 65. It also suggests further research to either enhance letter effectiveness or further address informational barriers for older populations. Second, the letters were less effective at increasing applications and generated smaller award amounts for individuals with higher potential SSI award amounts. The extreme economic vulnerability of individuals eligible for SSI, particularly those with higher potential award amounts, may explain this finding. Alternatively, the measure of "potential SSI amount" may have limitations, in that it is based on limited information in SSA data. A third alternative model – one in which individuals have rational expectations about costs and benefits after notification and the likelihood of adoption is increasing in expected benefit – does not appear to fit this result. Third, the letters were more effective at increasing applications for individuals in states that bundle SSI and Medicaid. One explanation for these patterns is that older individuals and poorer individuals (i.e., individuals who have larger potential SSI benefits) face greater barriers to applying. The bundling of SSI and Medicaid in some states may reduce these barriers (e.g., through Medicaid application assistance) and be more important for applying than potential award amount. Finally, the letters were more effective for individuals with a lower likelihood of having other sources of income as measured by not being subject to the WEP/GPO status and Widow beneficiary type.

We mailed letters to approximately 1% of the United States population age 65-80. Control study arm participants may have been exposed to treatment communications if they had social ties with treatment arm participants. Participants in one treatment arm may similarly have been exposed to participants in another treatment arm. Residential segregation by income suggests that there was scope for spillover across study arms. Contamination bias, if any, would have biased us against finding an effect of the letters and against finding differential effects of letter types and letter elements.

These findings suggest that if the letters had been sent to the control group as well, there would likely have been an increase in SSI participation of over 56,000 low-benefit seniors and additional

cumulative SSI payments of approximately US$24.6 million by 3-month follow-up and roughly US$75 million by 9-month follow-up.

Cost estimates for the proposed program change at scale suggest that letters that increase take-up by the amount of even our least effective letter constitute a meaningful effect size from the perspective of policy relevance/program impact. Consider the effect of the Basic Letter on the likelihood of being awarded SSI by 9 months (i.e., 1.66 percentage points). Mailing a letter cost to a single recipient results in a one-time cost to SSA of US$0.46. This yields a unit cost per person increase in SSI take-up of US$27.71, a small amount relative to the maximum annual payment of over US$8,800 or even the average monthly award of US$184.69 among Basic Letter recipients in our study. To place this in context, if the only income these individuals have is their OASDI benefits, then the average monthly award of approximately US$185 among Basic Letter recipients constitutes a 32 percent increase in total income.

There are additional costs and benefits that we did not explore. These include costs from additional workload or improper payments. One potential benefit we did not explore is that applying for SSI may have helped letter recipients access Medicaid. Another potential benefit is informational spillovers to individuals who did not receive a letter. While a full cost-benefit analysis would include such costs and benefits, we do not perform such an analysis here. Regardless, these costs would need to be very large to offset the increased income of those beneficiaries eventually receiving SSI payment in the utilitarian function assumed in standard cost-benefit analyses.

At least three other key limitations of the study design are worth noting. First, we were not be able to verify whether recipients opened and read the letter. Thus, the fact that fewer than 10% of addresses applied for SSI during the 9-month follow-up period may be partly driven by some inaccuracy in addresses and by low awareness of letter receipt. Second, SSA cannot determine SSI eligibility with certainty until after an individual applies and SSA reviews their application. SSA cannot observe assets and hence can only make a preliminary assessment of SSI eligibility based on amount of OASDI benefits received. Prior work by Rupp et al. (2007) suggests many individuals are not participating because of unobservable income

and assets; additional sources of asset and income data could improve targeting. Third, we did not study whether individuals responded strategically with respect to the eligibility criteria.

Additional work refining the target population through additional sources of data (for example, for known pensions, marital status, OASDI benefit type, or Medicare premium difference) or timing (for example, during other large workload periods or at especially-effected ages), may improve the overall cost performance by eliminating applications that do not become awards or any potential improper payments. Additionally, only 86% of the elderly receive (OASDI) benefits; it is not clear whether such an outreach would be successful for the remaining 14% (many of whom may already receive or may be ineligible for SSI).

Two additional letter elements could be tested in future research. The effectiveness of the Maximum Benefit Statement suggests that highlighting another benefit – Medicaid for SSI recipients – may also be effective. Emphasizing that SSI is a benefit program for a population at need may reduce the tradeoff between increasing applications and decreasing the award likelihood conditional on applying, yet may also discourage applications by eligible individuals.

6 Conclusion

We conducted a randomized controlled direct mail field experiment with 4,016,461 individuals age 65-80. Communicating likely eligibility in a simple letter increased take-up by 500% relative to no letter, yet overall take-up in the letter arms remained below 7%. A modest tradeoff between application volume and the conditional likelihood of award highlights a key problem possibly facing policymakers in communicating program eligibility. There may be ways to better target notices so as to diminish the application-award discrepancy.

Notwithstanding these issues, there were clear income gains to a sizable share of OASDI beneficiaries age 65 and above. This suggests that there would be gains to the well-being of this population from sending a stand-alone notice like the ones tested in this experiment or other SSI outreach activities to the age 65 and above community. In fact, the same data could be leveraged to identify individuals who

may be eligible for other income-based programs for older adults that are designed to assist with food, medical, or housing costs. The potential benefits of such policies would need to be weighed against their fiscal costs both to the government as a whole and operationally to SSA. Regardless, adding behaviorally-informed statements increased the effectiveness of these communications, supporting the rapidly growing body of evidence that behavioral insights can successfully and effectively be used by program administrators when communicating program eligibility.

References

Anzick, Michael A., and David A. Weaver. 2001. “Reducing Poverty Among Elderly Women.” ORES Working Paper No. 87. Baltimore, MD: SSA, 2001.

Armour, Philip. 2018. "The role of information in disability insurance application: An analysis of the social security statement phase-in." American Economic Journal: Economic Policy 10, no. 3: 1-41.

Bailey, Michelle Stegman and Jeffrey Hemmeter. 2015. “Characteristics of Noninstitutionalized DI and SSI Program Participants, 2013 Update.” Research Statistics Note 2015-02. Baltimore, MD: SSA, 2015.

Ball, Robert M. 1973. "Social Security Amendments of 1972: Summary and Legislative History." Social Security Bulletin, 36(3): 3-25.

Barnett, Allyson and Nicholas Wilson. 2016. “US Federal Government Expenditures, Shortfalls in Beneficiaries’ Take-up, and Barriers to Take-up”. Reed College Working Paper https://www.reed.edu/economics/wilson/takeup_federal_11_10_2016.pdf

Berkowitz, Edward D. and Larry DeWitt. *The Other Welfare: Supplemental Security Income and U.S. Social Policy*. Cornell University Press: Ithaca and London, 2013.

Bhargava, Saurabh, and Dayanand Manoli. 2015. "Psychological frictions and the incomplete take-up of social benefits: Evidence from an IRS field experiment." American Economic Review, 105, no. 11 (2015): 3489-3529.

Bridges, Benjamin, and Robert V. Gesumaria. 2016. "Poverty Status of Social Security Beneficiaries, by Type of Benefit." Social Security Bulletin, 76(4): 19-50.

Burns, Marguerite, and Laura Dague. 2017. "The effect of expanding Medicaid eligibility on Supplemental Security Income program participation." Journal of Public Economics 149: 20-34.

Chetty, Raj, John N. Friedman, and Emmanuel Saez. 2013. “Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings.” American Economic Review, 103(7): 2683–2721.

Chetty, Raj, and Emmanuel Saez. 2013. “Teaching the Tax Code: Earnings Responses to an Experiment with EITC Recipients.” American Economic Journal: Applied Economics, 5(1): 1-31.

Cunnyngham, Karen. 2018. “Trends in supplemental nutrition assistance program participation rates: fiscal year 2010 to fiscal year 2016.” Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service. https://www.mathematica.org/our-publications-and-findings/publications/trends-in-snap-participation-rates-fiscal-year-2010-to-fiscal-year-201. Accessed October 20, 2020.

“Trends in Food Stamp Program Participation Rates: 1994 to 2000.” Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, 2002.

Davies, Paul S. 2003. "SSI Eligibility and Participation Among the Oldest Old: Evidence from the AHEAD." Social Security Bulletin, 64(3): 38-63.

Deshpande, Manasi, and Yue Li. 2019. Who is screened out? application costs and the targeting of disability programs. American Economic Journal: Economic Policy, 11(4): 213-48.

Elder, Todd E., and Elizabeth T. Powers. 2004. "SSI for the Aged and the Problem of 'Take-Up'." Michigan Retirement Research Center Research Paper No. WP 76.

Finkelstein, Amy, and Matthew J. Notowidigdo. 2019. "Take-up and targeting: Experimental evidence from SNAP." The Quarterly Journal of Economics, 134(3): 1505-1556.

Gustman, Alan L., Thomas L Steinmeier, and Nahid Tabatabai. 2014. "The Social Security Windfall Elimination and Government Pension Offset Provisions for Public Employees in the Health and Retirement Study." Social Security Bulletin, 74(3): 55-69.

Hill, Daniel H. 1990. "An Endogenously-Switching Ordered-Response Model of Information, Eligibility and Participation in SSI." The Review of Economics and Statistics 72(2): 368-371.

Karlan, Dean, Margaret McConnell, Sendhil Mullainathan, and Jonathan Zinman. 2016. "Getting to the top of mind: How reminders increase saving." Management Science, 62(12): 3393-3411.

Liebman, Jeffrey B., and Richard J. Zeckhauser. 2004. "Schmeduling." Harvard University working paper.

Lusardi, Annamaria, and Olivia S. Mitchell. 2011. "Financial literacy and retirement planning in the United States." Journal of Pension Economics & Finance, 10(4): 509-525.

Madrian, Brigitte C., and Dennis F. Shea. 2001. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." Quarterly Journal of Economics, 116(4): 1149-87.

McGarry, Kathleen. 1996. "Factors determining participation of the elderly in supplemental security income." Journal of Human Resources, 31(2): 331-358.

McGarry, Kathleen M. 2002. "Guaranteed Income. SSI and the Well-Being of the Elderly Poor." In *The Distributional Aspects of Social Security and Social Security Reform*, pp. 49-84. Chicago, Illinois: University of Chicago Press.

McGarry, Kathleen, and Robert Schoeni. 2005. "Widow(er) Poverty and Out-of-Pocket Medical Expenses Near End of Life." The Journals of Gerontology: Series B, 60(3): s160-s169.

McGarry, Kathleen, and Robert Schoeni. 2015. "Understanding participation in SSI." Michigan Retirement Research Center Working Paper WP 2015-319.

Menefee, John A., Bea Edwards, and Sylvester J. Schieber. 1981. "Analysis of Nonparticipation in the SSI Program." Social Security Bulletin, 44(6): 3-21.

Nicholas, Joyce, and Michael Wiseman. 2009. "Elderly Poverty and Supplemental Security Income." Social Security Bulletin, 69(1): 45-73.

Office of Evaluation Sciences. 2019. "Communicating Employment Supports to Denied Disability Insurance Applicants". General Services Administration, Washington, DC. https://oes.gsa.gov/projects/di-denial/ Accessed April 6, 2019.

Rupp, Kalman, Alexander Strand, Paul Davies, and Jim Sears. 2007. "Benefit Adequacy Among Elderly Social Security Retired-Work Beneficiaries and the SSI Federal Benefit Rate." Social Security Bulletin, 67(3): 29-51.

Shoemaker, J. Samantha, Amy J. Davidoff, Bruce Stuart, Ilene H. Zuckerman, Eberechukwu Onukwugha, and Christopher Powers. 2012. "Eligibility and take-up of the Medicare Part D low-income subsidy." INQUIRY: The Journal of Health Care Organization, Provision, and Financing 49, no. 3: 214-230.

Social Security Administration. 1976. "A Study of Recipient Awareness of SSI and Comprehension" (SSA Publication No. 75-11011), Office of Information, Social Security Administration, 1976.

Social Security Administration. 2017a. https://www.ssa.gov/ssi/ Accessed September 1, 2017.

Social Security Administration. 2017b. Annual Statistical Supplement to the Social Security Bulletin.

Social Security Administration. 2017c. Understanding Supplemental Security Income. 2017 Edition.

Social Security Administration. 2018. "SSI Monthly Statistics, 2017." (Released January 2018.) https://www.ssa.gov/policy/docs/statcomps/ssi_monthly/2017/index.html Accessed October 31, 2018.

Strand, Alexander, Kalman Rupp and Paul S. Davies. 2019. "Measurement Error in Estimates of the Participation Rate in Means-Tested Programs: The Case of the US Supplemental Security Income Program for the Elderly." Proceedings of the Federal Committee on Statistical Methodology Research Conference. Available at http://fcsm.sites.usa.gov/reports/research/2009research/

Warlick, Jennifer L. 1982. "Participation of the Aged in SSI." The Journal of Human Resources, 17(2): 236-60.

Zhang, C. Yiwei, Jeffrey Hemmeter, Judd B. Kessler, Robert D. Metcalfe, and Robert Weathers. 2020. "Nudging timely wage reporting: Field experimental evidence from the United States Supplement Security Income Program." National Bureau of Economic Research Working Paper, No. 27875.

Appendix
Letter #1: Basic Letter

Social Security Administration
Supplemental Security Income
Important Information

Address Line 1
Address Line 2
Address Line 3
Date:
Claim Number:

[RP NAME FOR, if applicable]
[NH NAME]
[ADDRESS]
[CITY, STATE ZIP]

Our records show you may be able to get Supplemental Security Income (SSI) benefits because you are age 65 or over.

What is SSI?
SSI is a monthly cash benefit that is in addition to regular Social Security retirement benefits.

How do you apply for SSI?
Call Social Security for more information on how to apply: toll-free at 1-800-772-1213, or call your local Social Security office at *F2. We can answer most questions over the phone.

If you are deaf or hard of hearing, you may call our TTY/TDD number *F3. For general information about Social Security we invite you to visit our website at www.socialsecurity.gov on the Internet. If you do call or visit an office, please have this letter with you. It will help us answer your questions.

Social Security Administration

Suspect Someone Else of Committing Social Security Fraud? Please visit http://oig.ssa.gov/r or call the Inspector General's Fraud Hotline at 1-800-269-0271 (TTY 1-866-501-2101).

Letter #2: Maximum Payment Letter

Social Security Administration
Supplemental Security Income
Important Information

Address Line 1
Address Line 2
Address Line 3
Date:
Claim Number:

[RP NAME FOR, if applicable]
[NH NAME]
[ADDRESS]
[CITY, STATE ZIP]

Our records show you may be able to get Supplemental Security Income (SSI) benefits because you are age 65 or over.

If you are eligible, you may be able to earn up to $735 (single) or $1,103 (married) per month in SSI benefits.

What is SSI?
SSI is a monthly cash benefit that is in addition to regular Social Security retirement benefits.

How do you apply for SSI?
Call Social Security for more information on how to apply: toll-free at 1-800-772-1213, or call your local Social Security office at *F2. We can answer most questions over the phone.

If you are deaf or hard of hearing, you may call our TTY/TDD number *F3. For general information about Social Security we invite you to visit our website at www.socialsecurity.gov on the Internet. If you do call or visit an office, please have this letter with you. It will help us answer your questions.

Social Security Administration

Suspect Someone Else of Committing Social Security Fraud? Please visit http://oig.ssa.gov/r or call the Inspector General's Fraud Hotline at 1-800-269-0271 (TTY 1-866-501-2101).

Letter #3: Simple Application Process Letter

Social Security Administration

Supplemental Security Income

Important Information

Address Line 1
Address Line 2
Address Line 3
Date:
Claim Number:

[RP NAME FOR, if applicable]
[NH NAME]
[ADDRESS]
[CITY, STATE ZIP]

Our records show you may be able to get Supplemental Security Income (SSI) benefits because you are age 65 or over.

Applying is simple! Call to schedule an appointment to apply in person or by phone. A Social Security representative will help you apply.

What is SSI?
SSI is a monthly cash benefit that is in addition to regular Social Security retirement benefits.

How do you apply for SSI?
Call Social Security for more information on how to apply: toll-free at 1-800-772-1213, or call your local Social Security office at *F2. We can answer most questions over the phone.

If you are deaf or hard of hearing, you may call our TTY/TDD number *F3. For general information about Social Security we invite you to visit our website at www.socialsecurity.gov on the Internet. If you do call or visit an office, please have this letter with you. It will help us answer your questions.

Social Security Administration

Suspect Someone Else of Committing Social Security Fraud? Please visit http://oig.ssa.gov/r or call the Inspector General's Fraud Hotline at 1-800-269-0271 (TTY 1-866-501-2101).

Letter #4: Combined Letter

Social Security Administration
Supplemental Security Income

Important Information

Address Line 1
Address Line 2
Address Line 3
Date:
Claim Number:

[RP NAME FOR, if applicable]
[NH NAME]
[ADDRESS]
[CITY, STATE ZIP]

Our records show you may be able to get Supplemental Security Income (SSI) benefits because you are age 65 or over.

If you are eligible, you may be able to earn up to $735 (single) or $1,103 (married) per month in SSI benefits.

Applying is simple! Call to schedule an appointment to apply in person or by phone. A Social Security representative will help you apply.

What is SSI?
SSI is a monthly cash benefit that is in addition to regular Social Security retirement benefits.

How do you apply for SSI?
Call Social Security for more information on how to apply: toll-free at 1-800-772-1213, or call your local Social Security office at *F2. We can answer most questions over the phone.

If you are deaf or hard of hearing, you may call our TTY/TDD number *F3. For general information about Social Security we invite you to visit our website at www.socialsecurity.gov on the Internet. If you do call or visit an office, please have this letter with you. It will help us answer your questions.

Social Security Administration

Suspect Someone Else of Committing Social Security Fraud? Please visit http://oig.ssa.gov/r or call the Inspector General's Fraud Hotline at 1-800-269-0271 (TTY 1-866-501-2101).

Table 1: Summary Statistics and Balance Checks

	All		Control		Any Letter			Basic			Maximum			Simplify			Combined		
	mean	sd	mean	sd	mean	sd	p-val[ab]	mean	sd	p-val[ab]	mean	sd	p-val[ab]	mean	sd	p-val[ab]	mean	sd	p-val[ab]
Age	71.33	4.45	71.34	4.45	71.32	4.45	0.15	71.33	4.44	0.48	71.32	4.45	0.42	71.32	4.45	0.33	71.33	4.44	0.61
Age 65 (%)	7.68	26.63	7.68	26.63	7.69	26.65	0.73	7.67	26.61	0.59	7.58	26.46	0.42	7.85	26.90	0.26	7.67	26.62	0.84
Ages 66-70 (%)	41.66	49.30	41.65	49.30	41.70	49.31		41.62	49.29		41.85	49.33		41.54	49.28		41.80	49.32	
Ages 71-75 (%)	28.98	45.37	28.98	45.37	29.00	45.38		29.16	45.45		29.00	45.37		28.93	45.35		28.91	45.33	
Ages 76-80 (%)	21.68	41.21	21.69	41.21	21.61	41.16		21.56	41.12		21.58	41.13		21.68	41.21		21.62	41.17	
Male (%)	31.71	46.54	31.72	46.54	31.65	46.51	0.34	31.72	46.54	0.98	31.65	46.51	0.63	31.67	46.52	0.75	31.54	46.47	0.22
Prior SSI Receipt (%)	12.50	33.07	12.50	33.07	12.50	33.08	0.98	12.45	33.02	0.66	12.41	32.97	0.37	12.61	33.20	0.30	12.54	33.12	0.71
Potential SSI Amount	218.92	176.60	218.96	176.61	218.58	176.46	0.19	218.43	176.49	0.35	218.47	176.40	0.39	218.86	176.62	0.87	218.55	176.32	0.47
1st Quintile (%)	20.03	40.02	20.02	40.01	20.11	40.08	0.26	20.24	40.18	0.46	20.14	40.11	0.19	20.04	40.03	0.68	20.03	40.02	0.89
2nd Quintile (%)	19.98	39.99	19.98	39.98	20.02	40.02		19.93	39.95		20.07	40.05		20.13	40.10		19.97	39.98	
3rd Quintile (%)	20.00	40.00	20.01	40.01	19.91	39.93		19.90	39.92		19.73	39.80		19.88	39.91		20.13	40.09	
4th Quintile (%)	20.00	40.00	19.99	39.99	20.03	40.03		20.02	40.01		20.14	40.10		20.03	40.02		19.96	39.97	
5th Quintile (%)	19.99	40.00	20.00	40.00	19.92	39.94		19.92	39.94		19.92	39.94		19.93	39.95		19.91	39.93	
Medicaid-SSI Type																			
209(b) (%)	13.10	33.74	13.10	33.75	13.05	33.69	0.56	12.99	33.62	0.51	13.02	33.65	0.30	13.08	33.71	0.79	13.12	33.76	0.69
SSI Criteria (%)	5.36	22.53	5.36	22.52	5.38	22.57		5.33	22.46		5.46	22.72		5.32	22.44		5.42	22.64	
1634 (%)	81.54	38.80	81.54	38.80	81.57	38.77		81.68	38.68		81.52	38.81		81.61	38.74		81.46	38.86	
Beneficiary Type	81.14	39.12	81.14	39.12	81.17	39.10	0.24	81.07	39.18	0.82	81.15	39.12	0.98	81.37	38.94	0.01	81.10	39.15	0.83
Other	0.18	4.28	0.18	4.27	0.19	4.40		0.19	4.40		0.19	4.31		0.22	4.63		0.18	4.25	
Worker	81.14	39.12	81.14	39.12	81.17	39.10		81.07	39.18		81.15	39.12		81.37	38.94		81.10	39.15	
Spouse	16.28	36.92	16.28	36.92	16.27	36.91		16.33	36.96		16.29	36.93		16.11	36.76		16.36	36.99	
Widow	2.39	15.29	2.40	15.30	2.37	15.20		2.41	15.34		2.38	15.24		2.31	15.02		2.36	15.18	
WEP/GPO Case (%)	24.86	43.22	24.87	43.22	24.85	43.21	0.77	24.71	43.13	0.25	24.93	43.26	0.63	24.77	43.17	0.47	24.98	43.29	0.43

Source: Authors' calculations using SSA administrative records.

Notes:

a: Compares any letter vs. control

b: t-test if continuous (age, potential amount); z-test if binary (male, prior receipt, WEP/GPO); chi-square test if categorical (age group, qunitles, Medicaid state type, state)

c: Compares letter group vs. control

Table 2: Effect of Letters on SSI Applications and Awards

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0438***	0.0149***	-79.4827***	0.1260***	0.0449***	0.0162***	-71.8661***	0.7486***	0.0449***	0.0166***	-60.3449***	1.4436***
	(0.0030)	(0.0010)	(10.6032)	(0.0278)	(0.0030)	(0.0010)	(6.4404)	(0.0960)	(0.0030)	(0.0010)	(6.3330)	(0.1343)
Maximum	0.0521***	0.0165***	-72.7528***	0.0954**	0.0534***	0.0182***	-65.4489***	0.7082***	0.0533***	0.0184***	-59.1906***	1.4646***
	(0.0034)	(0.0007)	(9.8999)	(0.0396)	(0.0034)	(0.0008)	(8.3282)	(0.0846)	(0.0034)	(0.0007)	(7.3761)	(0.1152)
Simplify	0.0465***	0.0145***	-75.0831***	0.1156***	0.0474***	0.0157***	-68.5921***	0.7829***	0.0478***	0.0161***	-56.4455***	1.4745***
	(0.0033)	(0.0009)	(10.6974)	(0.0377)	(0.0035)	(0.0010)	(8.7919)	(0.0747)	(0.0036)	(0.0011)	(7.3680)	(0.0995)
Combined	0.0544***	0.0167***	-73.9371***	0.0943***	0.0554***	0.0183***	-70.0860***	0.7491***	0.0558***	0.0188***	-62.4226***	1.4744***
	(0.0042)	(0.0009)	(8.3311)	(0.0317)	(0.0042)	(0.0009)	(7.8624)	(0.0700)	(0.0042)	(0.0010)	(6.7876)	(0.1138)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4.00	0.010	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 3: Effect of Letter Elements on SSI Applications and Awards

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter element												
Basic letter content	0.0438***	0.0149***	-79.4827***	0.1260***	0.0449***	0.0162***	-71.8661***	0.7486***	0.0449***	0.0166***	-60.3449***	1.4436***
	(0.0030)	(0.0010)	(10.6032)	(0.0278)	(0.0030)	(0.0010)	(6.4404)	(0.0960)	(0.0030)	(0.0010)	(6.3330)	(0.1343)
Max benefit statement	0.0083***	0.0016**	6.7298	-0.0307	0.0085***	0.0020***	6.4171	-0.0404	0.0084***	0.0018***	1.1543	0.0209
	(0.0009)	(0.0006)	(6.5122)	(0.0253)	(0.0010)	(0.0006)	(6.4486)	(0.0521)	(0.0009)	(0.0006)	(6.1939)	(0.0957)
Simple application statement	0.0027**	-0.0004	4.3996	-0.0105	0.0025**	-0.0005	3.2740	0.0343	0.0030**	-0.0004	3.8994	0.0309
	(0.0010)	(0.0005)	(10.3322)	(0.0330)	(0.0011)	(0.0007)	(7.5678)	(0.0850)	(0.0012)	(0.0007)	(7.1184)	(0.1207)
Max benefit x Simple	-0.0005	0.0006	-5.5838	0.0094	-0.0005	0.0007	-7.9110	0.0066	-0.0004	0.0009	-7.1314	-0.0210
	(0.0014)	(0.0009)	(11.8521)	(0.0472)	(0.0014)	(0.0008)	(12.0983)	(0.1082)	(0.0016)	(0.0010)	(10.0425)	(0.1743)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4.00	0.010	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 4: Effect of Letters on Additional Outcomes

Follow-up period:	3 months			6 months			9 months		
Dependent variable:	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Letter type									
Basic	0.0143***	-162.7499***	0.1816***	0.0157***	-166.8277***	0.1801***	0.0160***	-132.7383***	0.1835***
	(0.0012)	(13.9933)	(0.0110)	(0.0011)	(15.2961)	(0.0117)	(0.0011)	(19.2419)	(0.0111)
Maximum	0.0157***	-153.4204***	0.2045***	0.0174***	-137.0909***	0.2055***	0.0175***	-79.6309***	0.2114***
	(0.0009)	(12.7875)	(0.0126)	(0.0009)	(19.8668)	(0.0138)	(0.0009)	(24.2149)	(0.0113)
Simplify	0.0144***	-155.2637***	0.2122***	0.0155***	-131.1401***	0.2127***	0.0159***	-83.1956***	0.2133***
	(0.0011)	(12.4819)	(0.0099)	(0.0012)	(20.4551)	(0.0106)	(0.0013)	(29.7745)	(0.0103)
Combined	0.0160***	-150.8127***	0.2179***	0.0176***	-135.3369***	0.2176***	0.0181***	-88.3160***	0.2174***
	(0.0009)	(14.8768)	(0.0092)	(0.0009)	(23.0461)	(0.0120)	(0.0009)	(26.2279)	(0.0109)
Observations	4,016,461	20,117	37,700	4,016,461	27,884	49,493	4,016,461	34,976	58,633
Control group mean	0.004	589.78	0.002	0.005	972.09	0.003	0.007	1302.08	0.002

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Application denied" and "Total SSI payments received" are conditional on having applied and having received SSI, respectively. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 5: Effect of Letter Elements on Additional Outcomes

Follow-up period:	3 months			6 months			9 months		
Dependent variable:	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Letter element									
Basic letter content	0.0143***	-162.7499***	0.1816***	0.0157***	-166.8277***	0.1801***	0.0160***	-132.7383***	0.1835***
	(0.0012)	(13.9933)	(0.0110)	(0.0011)	(15.2961)	(0.0117)	(0.0011)	(19.2419)	(0.0111)
Max benefit statement	0.0014**	9.3295	0.0229*	0.0017***	29.7368*	0.0253**	0.0015**	53.1074**	0.0278**
	(0.0005)	(11.7071)	(0.0133)	(0.0006)	(16.1938)	(0.0111)	(0.0006)	(21.6317)	(0.0105)
Simple application statement	0.0001	7.4862	0.0306***	-0.0002	35.6877*	0.0326***	-0.0001	49.5427*	0.0297***
	(0.0006)	(15.2021)	(0.0091)	(0.0007)	(19.5991)	(0.0089)	(0.0007)	(29.1432)	(0.0091)
Max benefit x Simple	0.0001	-4.8784	-0.0173	0.0003	-33.9336	-0.0204*	0.0006	-58.2278	-0.0236**
	(0.0008)	(19.5877)	(0.0122)	(0.0009)	(32.4308)	(0.0107)	(0.0010)	(39.7047)	(0.0114)
Observations	4,016,461	20,117	37,700	4,016,461	27,884	49,493	4,016,461	34,976	58,633
Control group mean	0.004	589.78	0.002	0.005	972.09	0.003	0.007	1302.08	0.002

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Application denied" and "Total SSI payments received" are conditional on having applied and having received SSI, respectively. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 6: Robustness Checks for Effect of Letters on SSI Applications and Awards

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0438***	0.0149***	-21.9820***	0.1619***	0.0449***	0.0162***	-23.8981***	0.8125***	0.0449***	0.0166***	-18.0118***	1.5168***
	(0.0030)	(0.0010)	(7.1144)	(0.0228)	(0.0030)	(0.0010)	(4.5432)	(0.0852)	(0.0030)	(0.0010)	(4.4010)	(0.1234)
Maximum	0.0521***	0.0165***	-21.6201***	0.1279***	0.0534***	0.0182***	-24.6681***	0.7659***	0.0533***	0.0184***	-21.9517***	1.5303***
	(0.0034)	(0.0007)	(6.7929)	(0.0304)	(0.0034)	(0.0008)	(5.4080)	(0.0733)	(0.0034)	(0.0007)	(4.3907)	(0.1069)
Simplify	0.0465***	0.0145***	-22.5752***	0.1511***	0.0474***	0.0157***	-26.0119***	0.8428***	0.0478***	0.0161***	-18.6801***	1.5417***
	(0.0033)	(0.0009)	(7.1480)	(0.0318)	(0.0035)	(0.0010)	(5.5738)	(0.0675)	(0.0036)	(0.0011)	(4.3247)	(0.0951)
Combined	0.0544***	0.0167***	-22.5856***	0.1275***	0.0554***	0.0183***	-29.0744***	0.8072***	0.0558***	0.0188***	-25.0611***	1.5422***
	(0.0042)	(0.0009)	(5.8905)	(0.0258)	(0.0042)	(0.0009)	(4.5144)	(0.0601)	(0.0042)	(0.0010)	(3.4350)	(0.1056)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 7: Robustness Checks for Effect of Letter Elements on SSI Applications and Awards

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter element												
Basic letter content	0.0438***	0.0149***	-21.9820***	0.1619***	0.0449***	0.0162***	-23.8981***	0.8125***	0.0449***	0.0166***	-18.0118***	1.5168***
	(0.0030)	(0.0010)	(7.1144)	(0.0228)	(0.0030)	(0.0010)	(4.5432)	(0.0852)	(0.0030)	(0.0010)	(4.4010)	(0.1234)
Max benefit statement	0.0083***	0.0016**	0.3619	-0.0339	0.0085***	0.0020***	-0.7699	-0.0466	0.0084***	0.0018***	-3.9400	0.0134
	(0.0009)	(0.0006)	(5.3687)	(0.0266)	(0.0010)	(0.0006)	(6.6635)	(0.0568)	(0.0009)	(0.0006)	(5.7985)	(0.0994)
Simple application statement	0.0027**	-0.0004	-0.5932	-0.0108	0.0025**	-0.0006	-2.1137	0.0303	0.0029**	-0.0005	-0.6684	0.0248
	(0.0010)	(0.0005)	(7.3951)	(0.0357)	(0.0011)	(0.0006)	(6.9907)	(0.0884)	(0.0012)	(0.0007)	(6.0796)	(0.1230)
Max benefit x Simple	-0.0004	0.0006	-0.3723	0.0104	-0.0004	0.0007	-2.2926	0.0109	-0.0003	0.0010	-2.4410	-0.0129
	(0.0014)	(0.0008)	(9.2100)	(0.0494)	(0.0014)	(0.0008)	(10.4058)	(0.1140)	(0.0016)	(0.0010)	(8.0422)	(0.1802)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 8: Robustness Checks for Effect of Letter Elements on Additional Outcomes

Follow-up period:	3 months			6 months			9 months		
Dependent variable:	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Letter type									
Basic	0.0143***	-23.0555*	0.1531***	0.0157***	51.3996***	0.1525***	0.0160***	136.5850***	0.1583***
	(0.0011)	(12.2285)	(0.0114)	(0.0011)	(18.3151)	(0.0122)	(0.0011)	(28.1278)	(0.0114)
Maximum	0.0158***	-28.9674***	0.1776***	0.0174***	49.5196***	0.1787***	0.0176***	157.0139***	0.1860***
	(0.0009)	(9.3546)	(0.0134)	(0.0009)	(12.0797)	(0.0136)	(0.0009)	(16.8840)	(0.0112)
Simplify	0.0144***	-27.2738***	0.1853***	0.0155***	62.4212***	0.1858***	0.0159***	155.3554***	0.1882***
	(0.0010)	(9.0015)	(0.0102)	(0.0012)	(14.7369)	(0.0109)	(0.0013)	(21.3264)	(0.0106)
Combined	0.0160***	-26.9351**	0.1895***	0.0175***	52.2747***	0.1900***	0.0181***	149.1011***	0.1918***
	(0.0009)	(11.6584)	(0.0099)	(0.0009)	(15.9314)	(0.0120)	(0.0009)	(19.8950)	(0.0109)
Observations	4,016,461	20,117	37,700	4,016,461	27,884	49,493	4,016,461	34,976	58,633
Control group mean	0.004	589.78	0.002	0.005	972.09	0.003	0.007	1302.08	0.002

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Application denied" and "Total SSI payments received" are conditional on having applied and having received SSI, respectively. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 9: Robustness Checks of Effect of Letter Elements on Additional Outcomes

Follow-up period:	3 months			6 months			9 months		
Dependent variable:	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied	Received SSI for at least 1 month	Total SSI payments received	Application denied
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Letter element									
Basic letter content	0.0143***	-23.0555*	0.1531***	0.0157***	51.3996***	0.1525***	0.0160***	136.5850***	0.1583***
	(0.0011)	(12.2285)	(0.0114)	(0.0011)	(18.3151)	(0.0122)	(0.0011)	(28.1278)	(0.0114)
Max benefit statement	0.0014**	-5.9118	0.0245*	0.0017***	-1.8800	0.0262**	0.0015**	20.4289	0.0277***
	(0.0005)	(10.4603)	(0.0130)	(0.0006)	(17.3551)	(0.0109)	(0.0006)	(22.7480)	(0.0103)
Simple application statement	0.0001	-4.2183	0.0321***	-0.0002	11.0216	0.0333***	-0.0002	18.7705	0.0300***
	(0.0006)	(11.6003)	(0.0085)	(0.0007)	(20.3558)	(0.0083)	(0.0007)	(26.7218)	(0.0085)
Max benefit x Simple	0.0001	6.2506	-0.0203*	0.0003	-8.2665	-0.0220**	0.0007	-26.6833	-0.0242**
	(0.0008)	(17.4327)	(0.0115)	(0.0009)	(30.1995)	(0.0099)	(0.0010)	(35.8490)	(0.0105)
Observations	4,016,461	20,117	37,700	4,016,461	27,884	49,493	4,016,461	34,976	58,633
Control group mean	0.004	589.78	0.002	0.005	972.09	0.003	0.007	1302.08	0.002

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Application denied" and "Total SSI payments received" are conditional on having applied and having received SSI, respectively. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 10: Heterogenous Effects by Age

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0688***	0.0312***	-59.8865*	0.0957**	0.0693***	0.0333***	-56.2272***	0.5501***	0.0686***	0.0339***	-63.9486***	1.1788***
	(0.0039)	(0.0022)	(31.0590)	(0.0474)	(0.0040)	(0.0023)	(17.9086)	(0.1223)	(0.0041)	(0.0022)	(16.0696)	(0.1626)
Maximum	0.0832***	0.0328***	-80.6302***	0.0743*	0.0837***	0.0367***	-46.4453***	0.4962***	0.0826***	0.0359***	-72.5867***	1.2921***
	(0.0056)	(0.0026)	(23.2930)	(0.0423)	(0.0060)	(0.0033)	(16.9719)	(0.0929)	(0.0058)	(0.0033)	(14.5783)	(0.1253)
Simple	0.0742***	0.0312***	-53.2377***	0.0981*	0.0748***	0.0337***	-46.2913***	0.7293***	0.0746***	0.0342***	-51.3240***	1.4591***
	(0.0049)	(0.0025)	(19.6528)	(0.0507)	(0.0054)	(0.0032)	(13.2978)	(0.1035)	(0.0054)	(0.0034)	(12.8347)	(0.1429)
Combined	0.0834***	0.0332***	-87.3879***	0.1421***	0.0845***	0.0351***	-74.9302***	0.7258***	0.0835***	0.0346***	-75.4349***	1.4559***
	(0.0055)	(0.0032)	(21.1249)	(0.0465)	(0.0058)	(0.0033)	(18.7236)	(0.0880)	(0.0059)	(0.0032)	(19.5196)	(0.1086)
Age 66-70	-0.0067***	-0.0032***	-23.2213**	-0.1038***	-0.0097***	-0.0055***	-10.1926	-0.2776***	-0.0119***	-0.0076***	-25.7249***	-0.4081***
	(0.0009)	(0.0004)	(9.8404)	(0.0142)	(0.0013)	(0.0007)	(7.0248)	(0.0306)	(0.0016)	(0.0010)	(5.9340)	(0.0450)
Age 71-75	-0.0086***	-0.0041***	-51.0509***	-0.0174	-0.0128***	-0.0073***	-41.8370***	-0.1347***	-0.0161***	-0.0102***	-55.1372***	-0.2774***
	(0.0011)	(0.0005)	(13.8918)	(0.0242)	(0.0017)	(0.0008)	(6.3782)	(0.0330)	(0.0021)	(0.0013)	(6.2884)	(0.0668)
Age 76-80	-0.0095***	-0.0044***	-32.9523**	-0.0237	-0.0144***	-0.0079***	-29.6748**	-0.1507**	-0.0182***	-0.0113***	-42.0917***	-0.2479**
	(0.0012)	(0.0005)	(15.0517)	(0.0309)	(0.0019)	(0.0009)	(12.2168)	(0.0565)	(0.0023)	(0.0015)	(11.7031)	(0.0966)
Basic * Age 66-70	-0.0186***	-0.0127***	-19.5465	0.0968*	-0.0176***	-0.0130***	-16.2157	0.3157***	-0.0166***	-0.0130***	5.9151	0.3876**
	(0.0023)	(0.0018)	(26.9068)	(0.0527)	(0.0023)	(0.0018)	(17.5274)	(0.0978)	(0.0024)	(0.0017)	(15.0349)	(0.1471)
Basic * Age 71-75	-0.0304***	-0.0202***	-11.0904	-0.0500	-0.0299***	-0.0214***	-12.8820	0.1146	-0.0293***	-0.0220***	12.5718	0.2965
	(0.0029)	(0.0024)	(31.5121)	(0.0595)	(0.0031)	(0.0023)	(17.0250)	(0.1096)	(0.0034)	(0.0021)	(14.7770)	(0.1930)
Basic * Age 76-80	-0.0387***	-0.0238***	-57.4818*	-0.0183	-0.0389***	-0.0253***	-40.6906*	0.2399**	-0.0381***	-0.0254***	-11.5549	0.1869
	(0.0027)	(0.0020)	(33.3967)	(0.0677)	(0.0027)	(0.0021)	(23.9216)	(0.1180)	(0.0029)	(0.0019)	(19.1939)	(0.2608)
Max* Age 66-70	-0.0222***	-0.0127***	5.7769	0.0712	-0.0213***	-0.0145***	-29.0125**	0.3317***	-0.0202***	-0.0132***	13.6973	0.2699
	(0.0033)	(0.0022)	(20.2116)	(0.0492)	(0.0036)	(0.0029)	(14.4187)	(0.0945)	(0.0034)	(0.0029)	(11.3047)	(0.1639)
Max * Age 71-75	-0.0382***	-0.0193***	39.1408*	-0.0594	-0.0376***	-0.0224***	1.4798	0.1736	-0.0363***	-0.0215***	35.7604***	0.1572
	(0.0035)	(0.0025)	(22.7834)	(0.0511)	(0.0037)	(0.0032)	(10.7536)	(0.1194)	(0.0036)	(0.0032)	(9.3711)	(0.1824)
Max * Age 76-80	-0.0495***	-0.0251***	-23.8307	0.0409	-0.0488***	-0.0278***	-39.8283	0.1741	-0.0478***	-0.0267***	-1.9621	0.1599
	(0.0043)	(0.0028)	(29.4440)	(0.0602)	(0.0046)	(0.0035)	(26.4170)	(0.1215)	(0.0044)	(0.0037)	(21.8881)	(0.2068)
Simple * Age 66-70	-0.0197***	-0.0133***	-21.5856	0.0513	-0.0192***	-0.0141***	-29.0391**	0.1079*	-0.0183***	-0.0138***	-9.2569	0.0624
	(0.0041)	(0.0021)	(19.0618)	(0.0464)	(0.0043)	(0.0026)	(13.8602)	(0.0602)	(0.0045)	(0.0030)	(12.2021)	(0.1000)
Simple * Age 71-75	-0.0331***	-0.0201***	-23.9996	0.0295	-0.0328***	-0.0219***	-18.4893	0.0675	-0.0322***	-0.0219***	12.7448	0.0546
	(0.0037)	(0.0023)	(23.3562)	(0.0583)	(0.0039)	(0.0029)	(14.9979)	(0.1070)	(0.0042)	(0.0033)	(16.2933)	(0.1988)
Simple * Age 76-80	-0.0457***	-0.0250***	-47.0558	-0.0965	-0.0457***	-0.0271***	-34.2755*	-0.0597	-0.0453***	-0.0275***	-26.1340	-0.1644
	(0.0042)	(0.0024)	(28.5238)	(0.0695)	(0.0045)	(0.0030)	(19.6918)	(0.1204)	(0.0047)	(0.0034)	(17.2266)	(0.2153)
Combined * Age 66-70	-0.0180***	-0.0123***	12.1721	0.0276	-0.0179***	-0.0124***	-1.1701	0.1884*	-0.0160***	-0.0111***	12.5364	0.2114
	(0.0053)	(0.0035)	(16.2287)	(0.0476)	(0.0060)	(0.0036)	(15.7337)	(0.1011)	(0.0058)	(0.0034)	(16.4447)	(0.1440)
Combined * Age 71-75	-0.0378***	-0.0208***	21.4224	-0.1979***	-0.0378***	-0.0211***	16.3255	-0.1926*	-0.0366***	-0.0200***	21.8292	-0.1961
	(0.0046)	(0.0032)	(20.4717)	(0.0590)	(0.0051)	(0.0033)	(15.1082)	(0.1035)	(0.0052)	(0.0032)	(16.2682)	(0.1440)
Combined * Age 76-80	-0.0492***	-0.0250***	37.2943	-0.1077	-0.0494***	-0.0257***	23.9954	-0.1400	-0.0480***	-0.0247***	30.3398	-0.2337
	(0.0047)	(0.0031)	(38.5184)	(0.0961)	(0.0051)	(0.0029)	(30.9915)	(0.2296)	(0.0052)	(0.0028)	(25.8714)	(0.3686)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 11: Heterogenous Effects by Potential SSI Amount

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0526***	0.0187***	-41.5081***	0.2817***	0.0539***	0.0203***	-36.7162***	1.2016***	0.0541***	0.0204***	-30.0081***	2.2648***
	(0.0031)	(0.0013)	(14.8763)	(0.0443)	(0.0031)	(0.0012)	(10.7188)	(0.0950)	(0.0031)	(0.0013)	(8.0435)	(0.1092)
Maximum	0.0590***	0.0190***	-39.1653**	0.3111***	0.0603***	0.0203***	-31.4237**	1.2249***	0.0603***	0.0207***	-24.3975***	2.1657***
	(0.0034)	(0.0008)	(15.5032)	(0.0371)	(0.0034)	(0.0008)	(12.0226)	(0.0806)	(0.0034)	(0.0008)	(8.0531)	(0.1038)
Simple	0.0547***	0.0175***	-41.6467***	0.3459***	0.0559***	0.0186***	-36.5117***	1.3283***	0.0562***	0.0191***	-27.5568***	2.3201***
	(0.0035)	(0.0010)	(8.9700)	(0.0484)	(0.0037)	(0.0011)	(7.0082)	(0.0846)	(0.0037)	(0.0011)	(5.3552)	(0.1470)
Combined	0.0609***	0.0189***	-39.3275***	0.2750***	0.0620***	0.0203***	-32.2292***	1.2011***	0.0625***	0.0210***	-25.7402***	2.1456***
	(0.0040)	(0.0009)	(11.4597)	(0.0356)	(0.0041)	(0.0010)	(8.1927)	(0.0626)	(0.0041)	(0.0010)	(5.7503)	(0.1138)
Potential SSI	0.0066***	0.0029***	532.5816***	0.5152***	0.0105***	0.0056***	536.8595***	1.2054***	0.0134***	0.0084***	547.4934***	1.6482***
	(0.0015)	(0.0007)	(23.7399)	(0.0559)	(0.0024)	(0.0013)	(24.8844)	(0.1263)	(0.0032)	(0.0019)	(28.1862)	(0.2092)
Basic * Potential SSI	-0.0399***	-0.0176***	68.0214	-0.5120***	-0.0412***	-0.0186***	43.9674	-1.6796***	-0.0419***	-0.0177***	42.7156	-3.2448***
	(0.0061)	(0.0028)	(45.4713)	(0.1338)	(0.0062)	(0.0031)	(43.3344)	(0.1947)	(0.0063)	(0.0035)	(35.3172)	(0.2752)
Max * Potential SSI	-0.0317***	-0.0115***	61.1767	-0.7907***	-0.0317***	-0.0097**	18.4215	-1.9412***	-0.0321***	-0.0105**	0.9588	-2.6514***
	(0.0063)	(0.0034)	(39.0560)	(0.1060)	(0.0066)	(0.0037)	(39.8374)	(0.1566)	(0.0065)	(0.0040)	(31.0030)	(0.3120)
Simple * Potental SSI	-0.0375***	-0.0137***	66.7970*	-0.8612***	-0.0385***	-0.0136***	33.6371	-2.0802***	-0.0380***	-0.0135***	29.0034	-3.2993***
	(0.0059)	(0.0029)	(33.9864)	(0.1183)	(0.0057)	(0.0030)	(31.7171)	(0.2292)	(0.0058)	(0.0032)	(30.3443)	(0.4598)
Combined * Potential SSI	-0.0301***	-0.0099**	51.9115	-0.6272***	-0.0299***	-0.0093**	0.2188	-1.6493***	-0.0304***	-0.0098**	-9.2193	-2.5151***
	(0.0062)	(0.0039)	(36.9945)	(0.1449)	(0.0065)	(0.0045)	(31.5280)	(0.2548)	(0.0065)	(0.0045)	(26.6027)	(0.3362)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 12: Heterogenous Effects by State of Residence Bundles Medicaid and SSI

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0314***	0.0125***	-104.8960***	0.0881	0.0319***	0.0136***	-86.6626***	0.7311***	0.0322***	0.0135***	-77.5836***	1.5765***
	(0.0007)	(0.0004)	(20.3002)	(0.0537)	(0.0008)	(0.0005)	(21.1141)	(0.1037)	(0.0009)	(0.0006)	(16.1058)	(0.1562)
Maximum	0.0391***	0.0144***	-96.6033***	0.1171**	0.0401***	0.0159***	-83.6758***	0.8551***	0.0408***	0.0163***	-69.5411***	1.6775***
	(0.0007)	(0.0004)	(19.2794)	(0.0510)	(0.0008)	(0.0005)	(20.0183)	(0.0984)	(0.0009)	(0.0006)	(15.1167)	(0.1466)
Simple	0.0332***	0.0134***	-95.9717***	0.1607***	0.0335***	0.0142***	-70.9650***	1.0024***	0.0339***	0.0142***	-57.0638***	1.8742***
	(0.0007)	(0.0004)	(19.4410)	(0.0514)	(0.0008)	(0.0005)	(20.6074)	(0.1013)	(0.0009)	(0.0006)	(15.6722)	(0.1520)
Combined	0.0387***	0.0151***	-78.1616***	0.1163**	0.0394***	0.0166***	-70.5515***	0.8715***	0.0400***	0.0169***	-57.3516***	1.7252***
	(0.0007)	(0.0004)	(18.7511)	(0.0496)	(0.0008)	(0.0005)	(19.5968)	(0.0963)	(0.0009)	(0.0006)	(14.8306)	(0.1438)
Bundled	0.0020***	0.0007***	-29.0697***	0.0465**	0.0032***	0.0013***	-12.6905*	0.0980***	0.0043***	0.0020***	-7.2076	0.0736
	(0.0001)	(0.0001)	(8.2165)	(0.0217)	(0.0001)	(0.0001)	(7.5928)	(0.0373)	(0.0002)	(0.0001)	(5.2395)	(0.0508)
Basic * Bundled	0.0152***	0.0029***	29.1607	0.0461	0.0159***	0.0032***	17.1447	0.0230	0.0156***	0.0038***	20.0724	-0.1543
	(0.0008)	(0.0005)	(22.0038)	(0.0582)	(0.0009)	(0.0006)	(22.8972)	(0.1125)	(0.0010)	(0.0007)	(17.4207)	(0.1689)
Max * Bundled	0.0160***	0.0026***	27.3032	-0.0242	0.0162***	0.0028***	21.2570	-0.1715	0.0153***	0.0025***	12.0671	-0.2506
	(0.0008)	(0.0005)	(20.9641)	(0.0555)	(0.0009)	(0.0006)	(21.7812)	(0.1070)	(0.0010)	(0.0007)	(16.4506)	(0.1595)
Simple * Bundled	0.0163***	0.0013***	23.7284	-0.0521	0.0171***	0.0018***	2.3747	-0.2584**	0.0171***	0.0023***	0.5192	-0.4716***
	(0.0008)	(0.0005)	(21.2307)	(0.0562)	(0.0009)	(0.0006)	(22.4634)	(0.1104)	(0.0010)	(0.0007)	(17.0397)	(0.1652)
Combined * Bundled	0.0192***	0.0019***	3.7045	-0.0243	0.0197***	0.0020***	0.0452	-0.1427	0.0195***	0.0023***	-6.3094	-0.2965*
	(0.0008)	(0.0005)	(20.4758)	(0.0542)	(0.0009)	(0.0006)	(21.3969)	(0.1051)	(0.0010)	(0.0007)	(16.1671)	(0.1568)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 13: Heterogenous Effects by WEP/GPO Status

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0548***	0.0195***	-79.2797***	0.1248***	0.0561***	0.0212***	-72.0550***	0.7539***	0.0560***	0.0217***	-60.2186***	1.4487***
	(0.0004)	(0.0002)	(7.8697)	(0.0208)	(0.0004)	(0.0003)	(8.2161)	(0.0404)	(0.0004)	(0.0003)	(6.1725)	(0.0598)
Maximum	0.0652***	0.0216***	-72.5653***	0.0959***	0.0669***	0.0239***	-65.8274***	0.7074***	0.0667***	0.0241***	-59.2244***	1.4700***
	(0.0004)	(0.0002)	(7.6187)	(0.0202)	(0.0004)	(0.0003)	(7.9355)	(0.0390)	(0.0004)	(0.0003)	(5.9997)	(0.0582)
Simple	0.0580***	0.0191***	-76.0643***	0.1152***	0.0591***	0.0206***	-69.3842***	0.7823***	0.0596***	0.0212***	-56.8983***	1.4733***
	(0.0004)	(0.0002)	(7.8444)	(0.0208)	(0.0004)	(0.0003)	(8.2413)	(0.0405)	(0.0004)	(0.0003)	(6.1800)	(0.0599)
Combined	0.0682***	0.0219***	-73.8120***	0.0925***	0.0695***	0.0240***	-69.8739***	0.7466***	0.0700***	0.0247***	-62.1017***	1.4705***
	(0.0004)	(0.0002)	(7.5791)	(0.0200)	(0.0004)	(0.0003)	(7.9182)	(0.0389)	(0.0004)	(0.0003)	(5.9431)	(0.0576)
WEP/GPO	-0.0055***	-0.0022***	-22.8848	-0.2455***	-0.0089***	-0.0044***	-1.5938	-0.5150***	-0.0116***	-0.0066***	25.2856	-0.5740***
	(0.0001)	(0.0001)	(29.2459)	(0.0774)	(0.0001)	(0.0001)	(25.9744)	(0.1276)	(0.0001)	(0.0001)	(17.7937)	(0.1725)
Basic * WEP/GPO	-0.0444***	-0.0188***	-19.7610	0.1427	-0.0453***	-0.0203***	16.1469	-0.3607	-0.0452***	-0.0207***	-14.0731	-0.3827
	(0.0007)	(0.0004)	(80.8969)	(0.2140)	(0.0008)	(0.0005)	(76.0636)	(0.3736)	(0.0009)	(0.0006)	(58.4271)	(0.5665)
Max * WEP/GPO	-0.0527***	-0.0207***	-7.2762	0.0376	-0.0541***	-0.0230***	31.0017	0.1629	-0.0537***	-0.0230***	-3.2826	-0.2862
	(0.0007)	(0.0004)	(68.8282)	(0.1821)	(0.0008)	(0.0005)	(72.3882)	(0.3556)	(0.0009)	(0.0006)	(53.2678)	(0.5165)
Simple * WEP/GPO	-0.0463***	-0.0185***	109.9691	0.0458	-0.0472***	-0.0200***	78.5688	0.0642	-0.0475***	-0.0206***	48.3198	0.0997
	(0.0007)	(0.0004)	(83.0426)	(0.2197)	(0.0008)	(0.0005)	(82.1463)	(0.4035)	(0.0009)	(0.0006)	(63.0125)	(0.6110)
Combined * WEP/GPO	-0.0553***	-0.0210***	-0.8932	0.2143	-0.0563***	-0.0230***	-14.6724	0.3291	-0.0567***	-0.0236***	-30.1696	0.4428
	(0.0007)	(0.0004)	(66.7300)	(0.1765)	(0.0008)	(0.0005)	(68.3823)	(0.3359)	(0.0009)	(0.0006)	(51.2204)	(0.4966)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Table 14: Heterogenous Effects by Beneficiary Type

Follow-up period:	3 months				6 months				9 months			
Dependent variable:	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received	Applied	Awarded	Average payment (monthly)	Number of months received
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Letter type												
Basic	0.0462***	0.0164***	-81.8366***	0.1726***	0.0474***	0.0178***	-74.2227***	0.8391***	0.0473***	0.0182***	-62.1619***	1.5595***
	(0.0003)	(0.0002)	(8.4442)	(0.0222)	(0.0004)	(0.0003)	(8.7720)	(0.0429)	(0.0004)	(0.0003)	(6.5804)	(0.0636)
Maximum	0.0548***	0.0178***	-74.9938***	0.1510***	0.0560***	0.0196***	-67.5945***	0.8074***	0.0560***	0.0197***	-59.6106***	1.6212***
	(0.0003)	(0.0002)	(8.1711)	(0.0215)	(0.0004)	(0.0003)	(8.4869)	(0.0415)	(0.0004)	(0.0003)	(6.4216)	(0.0621)
Simple	0.0487***	0.0157***	-76.5258***	0.1688***	0.0496***	0.0170***	-72.0422***	0.8864***	0.0499***	0.0173***	-62.0754***	1.6147***
	(0.0003)	(0.0002)	(8.4324)	(0.0222)	(0.0004)	(0.0003)	(8.8371)	(0.0432)	(0.0004)	(0.0003)	(6.6273)	(0.0641)
Combined	0.0570***	0.0184***	-75.0370***	0.1519***	0.0580***	0.0200***	-68.8274***	0.8607***	0.0584***	0.0206***	-61.3706***	1.6166***
	(0.0003)	(0.0002)	(8.0910)	(0.0213)	(0.0004)	(0.0003)	(8.4377)	(0.0413)	(0.0004)	(0.0003)	(6.3252)	(0.0612)
Other Type	0.0012	0.0012*	-3.4784	0.3499***	0.0029**	0.0024***	5.8870	0.7120***	0.0048***	0.0042***	48.7169**	0.7016***
	(0.0012)	(0.0007)	(30.7971)	(0.0811)	(0.0013)	(0.0009)	(31.6459)	(0.1548)	(0.0015)	(0.0010)	(22.3063)	(0.2157)
Spouse	-0.0014***	-0.0007***	13.0404*	0.2522***	-0.0025***	-0.0015***	24.1975***	0.5470***	-0.0034***	-0.0023***	24.7851***	0.7302***
	(0.0001)	(0.0001)	(7.6157)	(0.0201)	(0.0002)	(0.0001)	(7.5016)	(0.0367)	(0.0002)	(0.0001)	(5.3088)	(0.0513)
Widow	0.0013***	0.0007***	-11.4826	0.1978***	0.0025***	0.0013***	-19.9242	0.3588***	0.0033***	0.0018***	-11.8169	0.5032***
	(0.0003)	(0.0002)	(13.3367)	(0.0351)	(0.0004)	(0.0002)	(12.8987)	(0.0631)	(0.0004)	(0.0003)	(9.0788)	(0.0878)
Basic * Other Type	-0.0057	0.0064	60.3576	-0.3412	-0.0013	0.0122**	195.1088	-2.1199***	0.0100	0.0133**	40.1822	-3.0474***
	(0.0069)	(0.0042)	(141.9995)	(0.3740)	(0.0080)	(0.0052)	(122.8332)	(0.6010)	(0.0087)	(0.0060)	(88.1151)	(0.8522)
Basic * Spouse	-0.0170***	-0.0111***	32.6185	-0.2149***	-0.0179***	-0.0120***	25.8582	-0.4870***	-0.0179***	-0.0123***	28.8656	-0.7575***
	(0.0008)	(0.0005)	(28.3514)	(0.0747)	(0.0009)	(0.0006)	(30.1452)	(0.1475)	(0.0010)	(0.0007)	(22.7342)	(0.2199)
Basic * Widow	0.0167***	0.0127***	13.5048	-0.1656*	0.0197***	0.0137***	23.6922	-0.2429	0.0190***	0.0134***	18.1955	-0.1615
	(0.0020)	(0.0012)	(36.9635)	(0.0974)	(0.0023)	(0.0015)	(39.0202)	(0.1909)	(0.0025)	(0.0017)	(29.6491)	(0.2868)
Max * Other Type	-0.0230***	0.0007	87.4897	-0.3446	-0.0183**	0.0119**	41.9393	-0.9670*	-0.0117	0.0190***	-4.2168	-1.4377*
	(0.0071)	(0.0043)	(113.9153)	(0.3001)	(0.0081)	(0.0053)	(111.9572)	(0.5478)	(0.0089)	(0.0061)	(81.5496)	(0.7887)
Max * Spouse	-0.0210***	-0.0110***	24.8783	-0.3441***	-0.0213***	-0.0118***	30.9983	-0.7309***	-0.0215***	-0.0116***	18.9326	-1.2616***
	(0.0008)	(0.0005)	(27.9332)	(0.0736)	(0.0010)	(0.0006)	(29.0022)	(0.1419)	(0.0010)	(0.0007)	(21.4744)	(0.2077)
Max * Widow	0.0343***	0.0183***	22.1121	-0.1534*	0.0343***	0.0192***	23.5420	-0.1404	0.0346***	0.0200***	4.1539	-0.3220
	(0.0020)	(0.0012)	(34.6761)	(0.0913)	(0.0023)	(0.0015)	(36.9714)	(0.1809)	(0.0025)	(0.0017)	(27.9708)	(0.2705)
Simple * Other Type	0.0012	-0.0002	-19.5408	-0.1124	0.0002	0.0095*	153.0673	-0.7733	0.0004	0.0148***	40.5833	-0.8928
	(0.0066)	(0.0040)	(113.9344)	(0.3001)	(0.0076)	(0.0050)	(111.9843)	(0.5479)	(0.0083)	(0.0057)	(81.5660)	(0.7889)
Simple * Spouse	-0.0155***	-0.0092***	25.7528	-0.3239***	-0.0159***	-0.0096***	33.4214	-0.6872***	-0.0155***	-0.0096***	69.9808***	-0.9919***
	(0.0008)	(0.0005)	(27.3788)	(0.0721)	(0.0010)	(0.0006)	(28.6263)	(0.1401)	(0.0010)	(0.0007)	(21.3568)	(0.2066)
Simple * Widow	0.0146***	0.0094***	5.6162	-0.1307	0.0160***	0.0101***	22.1198	-0.2738	0.0182***	0.0121***	4.0874	-0.4468
	(0.0020)	(0.0012)	(38.5118)	(0.1014)	(0.0023)	(0.0015)	(41.0669)	(0.2009)	(0.0025)	(0.0018)	(30.8329)	(0.2982)
Combined * Other Type	-0.0298***	0.0007	61.3579	-0.1206	-0.0244***	0.0071	-14.2189	-1.1891*	-0.0180**	0.0084	14.1675	-2.0741**
	(0.0072)	(0.0043)	(141.9789)	(0.3740)	(0.0082)	(0.0054)	(138.1568)	(0.6760)	(0.0090)	(0.0062)	(96.7834)	(0.9361)
Combined * Spouse	-0.0170***	-0.0116***	36.9573	-0.3696***	-0.0166***	-0.0121***	8.1958	-0.7163***	-0.0168***	-0.0126***	2.0142	-0.9240***
	(0.0008)	(0.0005)	(27.1252)	(0.0714)	(0.0009)	(0.0006)	(28.1786)	(0.1379)	(0.0010)	(0.0007)	(21.1768)	(0.2048)
Combined * Widow	0.0069***	0.0092***	-26.1584	-0.1454	0.0081***	0.0119***	-13.9980	-0.4043**	0.0075***	0.0119***	0.0402	-0.5824**
	(0.0020)	(0.0012)	(38.2305)	(0.1007)	(0.0023)	(0.0015)	(40.0098)	(0.1958)	(0.0025)	(0.0017)	(30.2264)	(0.2923)
Observations	4,016,461	4,016,461	20,117	20,117	4,016,461	4,016,461	27,884	27,884	4,016,461	4,016,461	34,976	34,976
Control group mean	0.005	0.002	274.85	2.27	0.007	0.004	256.51	4	0.01	0.005	245.04	5.54

*** p<0.01, ** p<0.05, * p<0.1

Notes: "Average payment" and "Number of months received" are conditional on having received SSI. Heteroskedasticity-robust standard errors clustered at state level in parentheses.

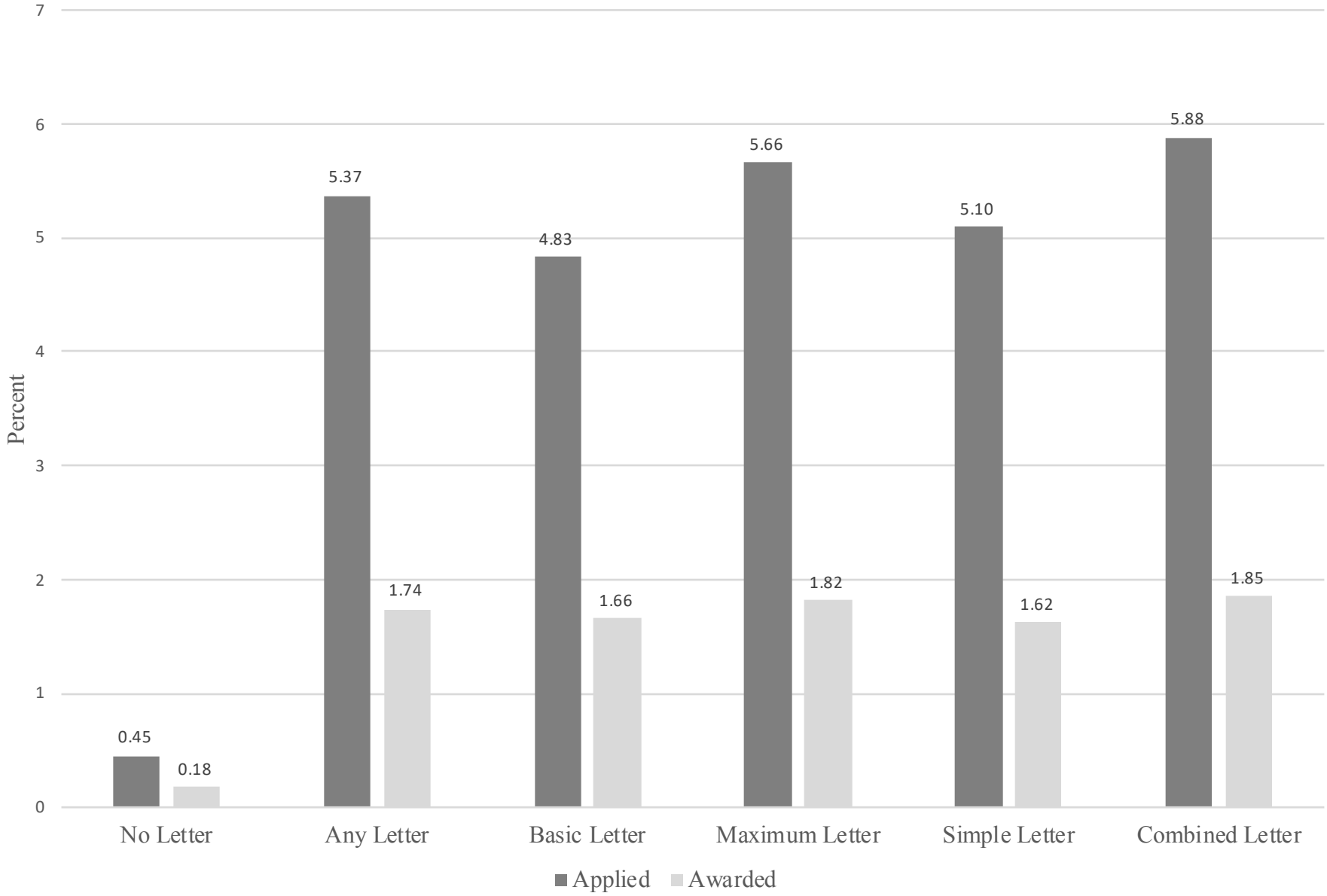
Table 15: Heterogeneous Effects by Beneficiary Type

Follow-up period	3 months				6 months				9 months			
	Applied		Awarded		Applied		Awarded		Applied		Awarded	
	Ineligible due to Earnings	Ineligible due to Earnings & OASDI	Ineligible due to Earnings	Ineligible due to Earnings & OASDI	Ineligible due to Earnings	Ineligible due to Earnings & OASDI	Ineligible due to Earnings	Ineligible due to Earnings & OASDI	Ineligible due to Earnings	Ineligible due to Earnings & OASDI	Ineligible due to Earnings	Ineligible due to Earnings & OASDI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Basic	0.0447***	0.0444***	0.0154***	0.0157***	0.0458***	0.0456***	0.0168***	0.0171***	0.0458***	0.0457***	0.0172***	0.0174***
	(0.0030)	(0.0031)	(0.0010)	(0.0010)	(0.0030)	(0.0032)	(0.0010)	(0.0010)	(0.0030)	(0.0032)	(0.0010)	(0.0011)
Maximum	0.0534***	0.0530***	0.0171***	0.0174***	0.0546***	0.0542***	0.0189***	0.0192***	0.0546***	0.0542***	0.0190***	0.0193***
	(0.0034)	(0.0033)	(0.0007)	(0.0007)	(0.0034)	(0.0033)	(0.0008)	(0.0008)	(0.0034)	(0.0033)	(0.0008)	(0.0008)
Simple	0.0475***	0.0471***	0.0151***	0.0153***	0.0484***	0.0478***	0.0163***	0.0165***	0.0488***	0.0481***	0.0167***	0.0167***
	(0.0033)	(0.0033)	(0.0009)	(0.0009)	(0.0035)	(0.0034)	(0.0011)	(0.0011)	(0.0036)	(0.0035)	(0.0011)	(0.0011)
Combined	0.0555***	0.0546***	0.0173***	0.0178***	0.0565***	0.0556***	0.0189***	0.0193***	0.0569***	0.0560***	0.0195***	0.0199***
	(0.0042)	(0.0041)	(0.0009)	(0.0009)	(0.0042)	(0.0041)	(0.0009)	(0.0010)	(0.0042)	(0.0041)	(0.0010)	(0.0010)
Ineligible Due to Earnings	0.0008		-0.0004***		0.0014*		-0.0003		0.0018*		-0.0003	
	(0.0005)		(0.0001)		(0.0008)		(0.0003)		(0.0011)		(0.0005)	
Basic * Ineligible Due to Earnings	-0.0177***		-0.0109***		-0.0188***		-0.0120***		-0.0196***		-0.0126***	
	(0.0031)		(0.0013)		(0.0031)		(0.0013)		(0.0031)		(0.0013)	
Maximum * Ineligible Due to Earnings	-0.0263***		-0.0128***		-0.0263***		-0.0143***		-0.0270***		-0.0143***	
	(0.0029)		(0.0013)		(0.0029)		(0.0012)		(0.0027)		(0.0013)	
Simple * Ineligible Due to Earnings	-0.0212***		-0.0131***		-0.0198***		-0.0128***		-0.0195***		-0.0112***	
	(0.0023)		(0.0013)		(0.0024)		(0.0012)		(0.0028)		(0.0016)	
Combined * Ineligible Due to Earnings	-0.0229***		-0.0133***		-0.0225***		-0.0138***		-0.0222***		-0.0137***	
	(0.0027)		(0.0011)		(0.0028)		(0.0013)		(0.0028)		(0.0011)	
Ineligible Due to Earnings & OASDI		0.0018***		0.0002		0.0033***		0.0008***		0.0047***		0.0015***
		(0.0005)		(0.0001)		(0.0007)		(0.0003)		(0.0011)		(0.0005)
Basic * Ineligible Due to Earnings & OASDI		-0.0046*		-0.0065***		-0.0057**		-0.0068***		-0.0061***		-0.0070***
		(0.0023)		(0.0011)		(0.0024)		(0.0013)		(0.0022)		(0.0013)
Maximum * Ineligible Due to Earnings & OASDI		-0.0068***		-0.0078***		-0.0069***		-0.0078***		-0.0075***		-0.0079***
		(0.0021)		(0.0011)		(0.0020)		(0.0011)		(0.0020)		(0.0011)
Simple * Ineligible Due to Earnings & OASDI		-0.0044*		-0.0064***		-0.0025		-0.0063***		-0.0024		-0.0050***
		(0.0023)		(0.0010)		(0.0022)		(0.0010)		(0.0025)		(0.0009)
Combined * Ineligible Due to Earnings & OASDI		-0.0018		-0.0090***		-0.0015		-0.0081***		-0.0016		-0.0081***
		(0.0021)		(0.0010)		(0.0023)		(0.0011)		(0.0025)		(0.0012)
Observations	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461	4,016,461
R-squared	0.024	0.024	0.007	0.007	0.019	0.019	0.005	0.005	0.016	0.016	0.004	0.004

*** p<0.01, ** p<0.05, * p<0.1

Notes: Heteroskedasticity-robust standard errors clustered at state level in parentheses.

Figure 1: Applications and Awards at 3 Month Follow-Up



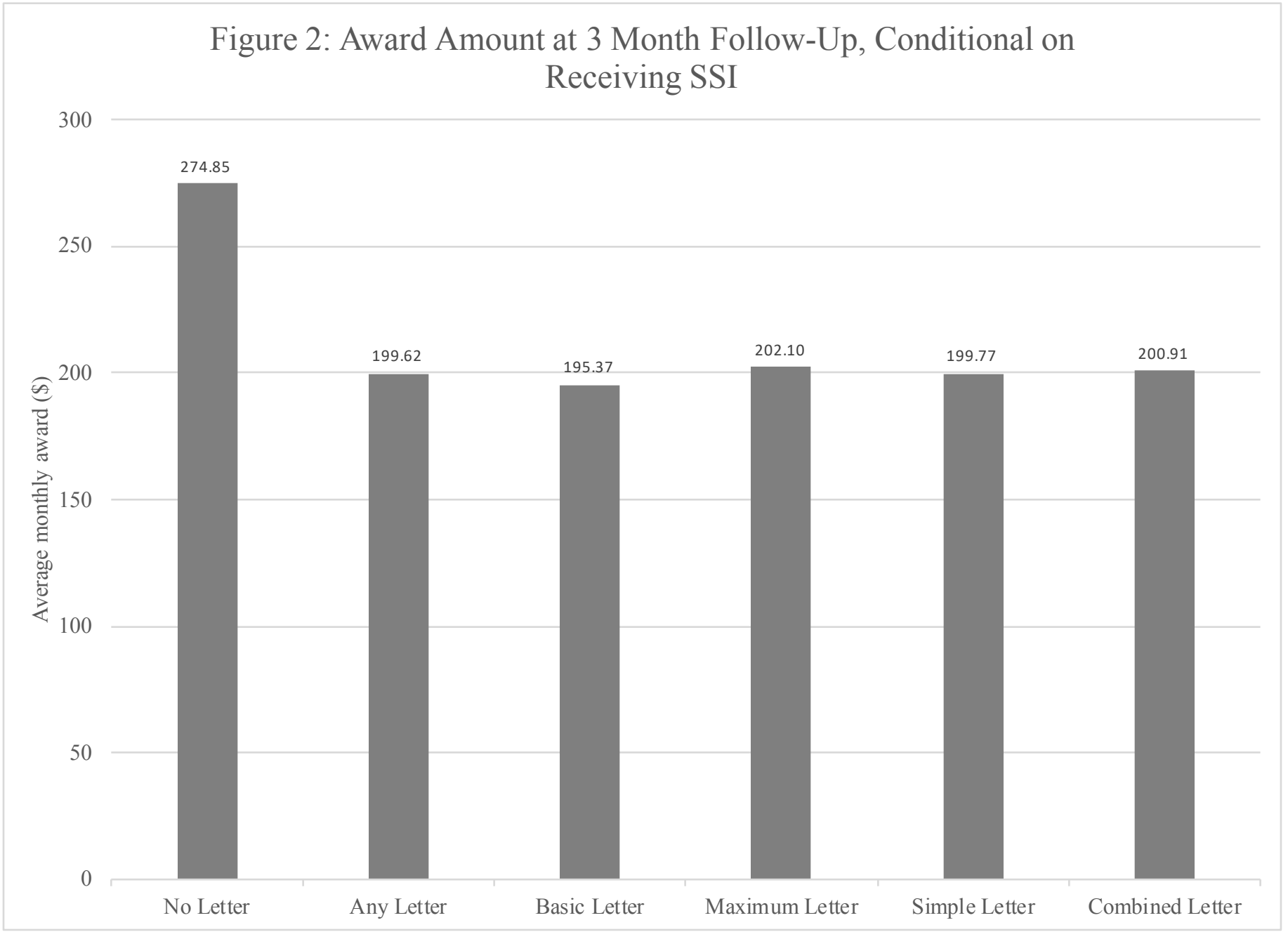


Figure 2: Award Amount at 3 Month Follow-Up, Conditional on Receiving SSI
Average monthly award ($)
300
250
200
150
100
50
0
274.85
199.62
195.37
202.10
199.77
200.91
No Letter
Any Letter
Basic Letter
Maximum Letter
Simple Letter
Combined Letter

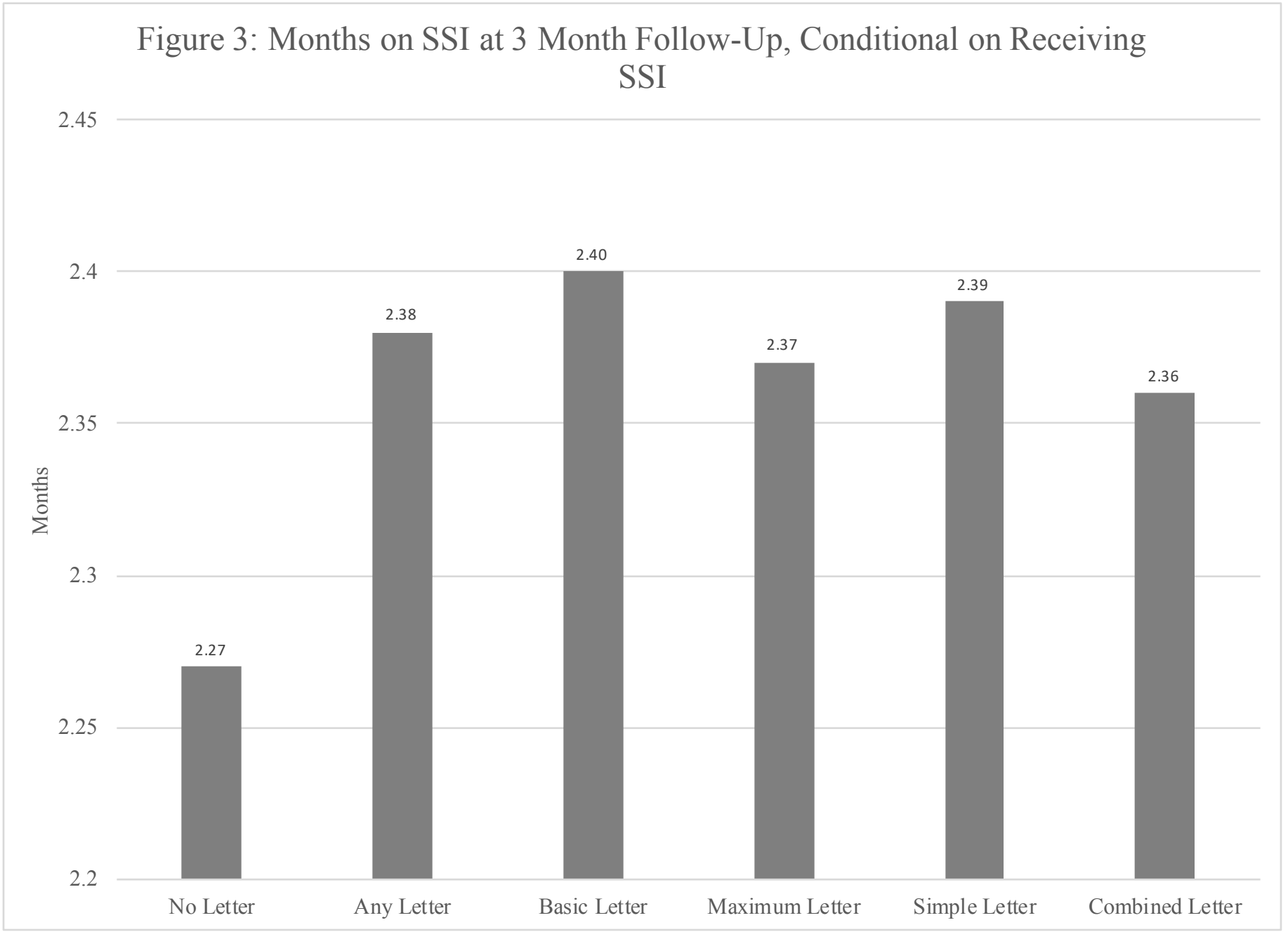
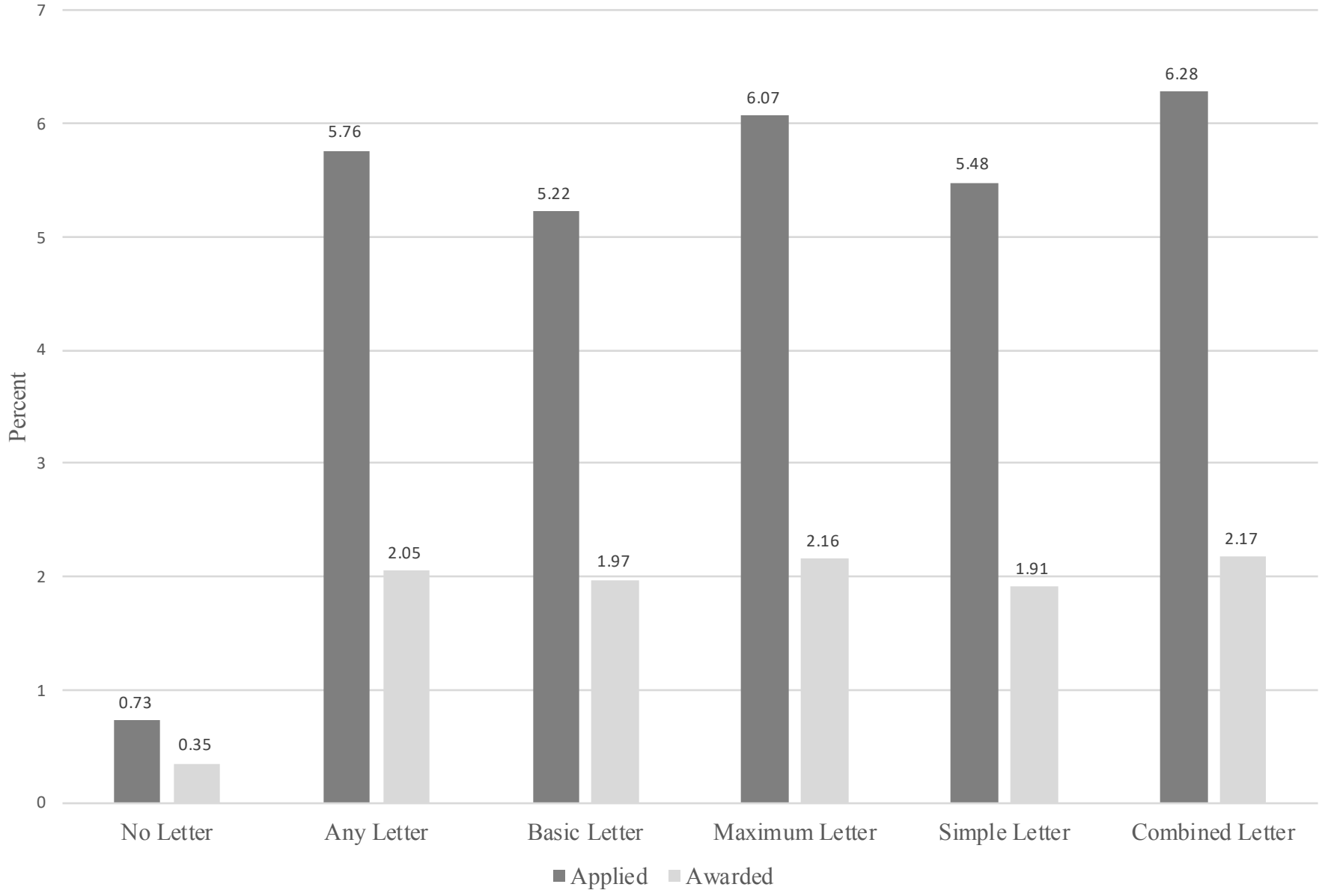


Figure 3: Months on SSI at 3 Month Follow-Up, Conditional on Receiving SSI
Months
2.45
2.4
2.35
2.3
2.25
2.2
2.27
2.38
2.40
2.37
2.39
2.36
No Letter
Any Letter
Basic Letter
Maximum Letter
Simple Letter
Combined Letter

Figure 4: Applications and Awards at 6 Month Follow-Up



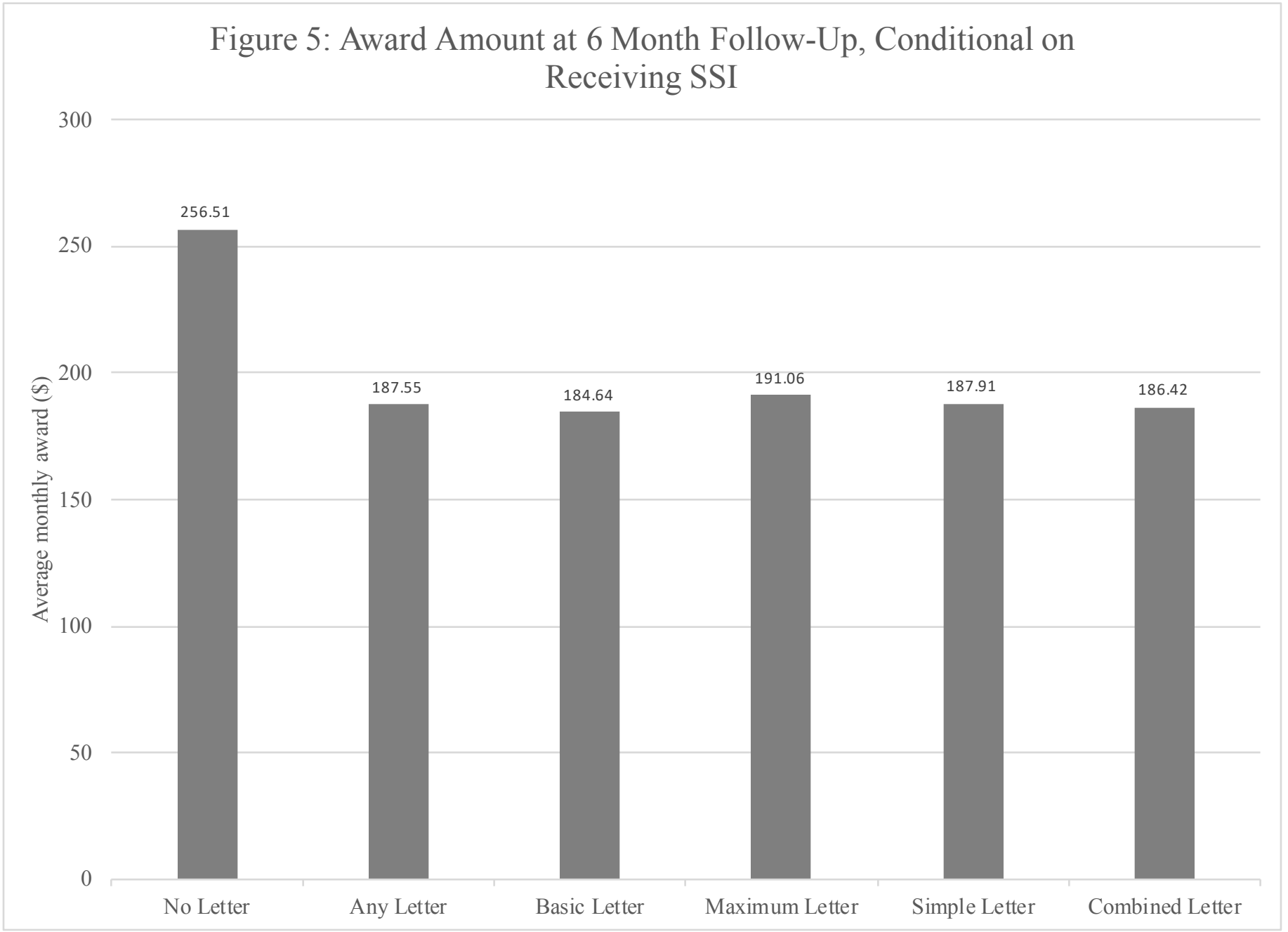


Figure 5: Award Amount at 6 Month Follow-Up, Conditional on Receiving SSI
Average monthly award ($)
300
250
200
150
100
50
0
256.51
187.55
184.64
191.06
187.91
186.42
No Letter
Any Letter
Basic Letter
Maximum Letter
Simple Letter
Combined Letter

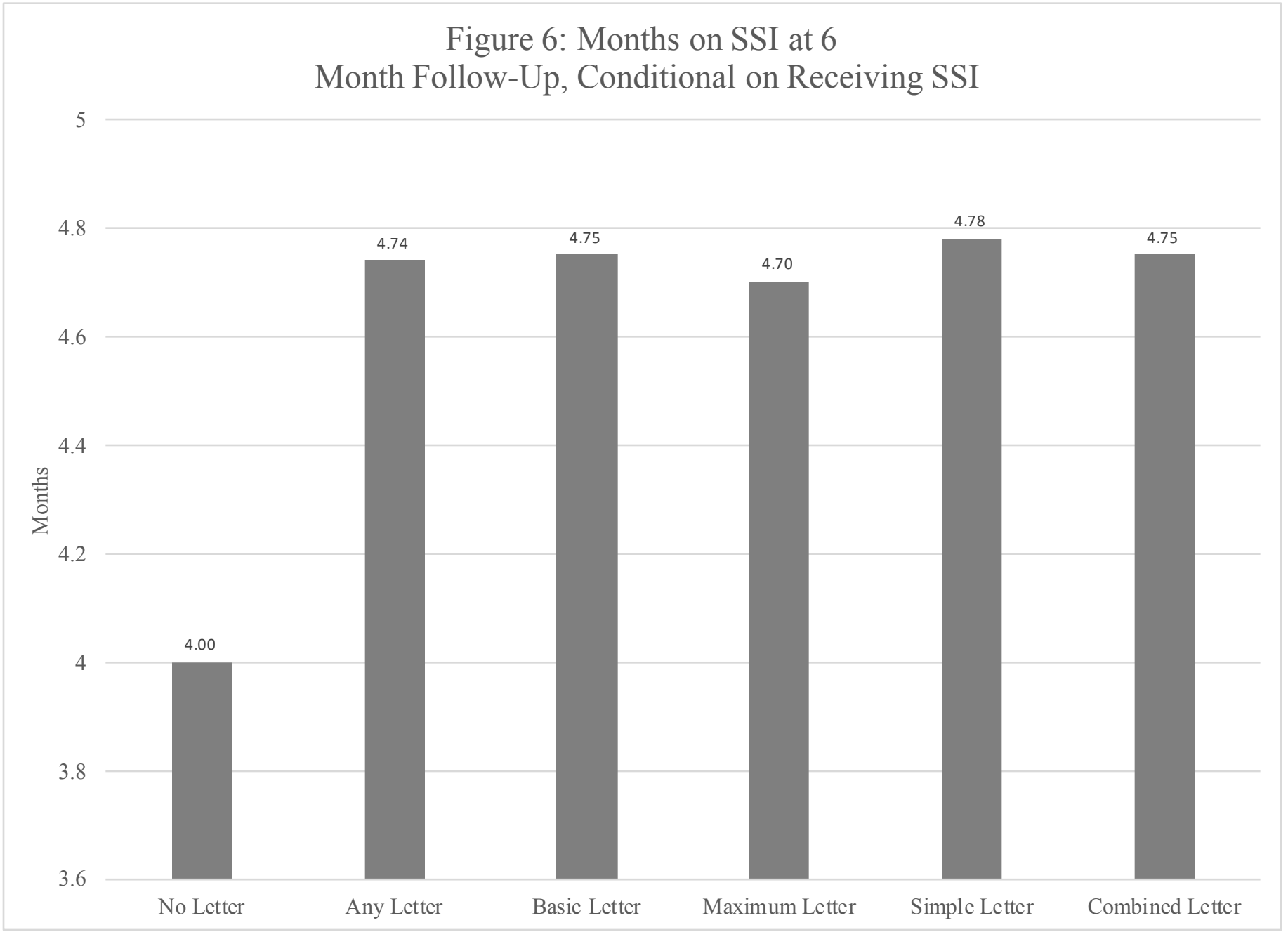
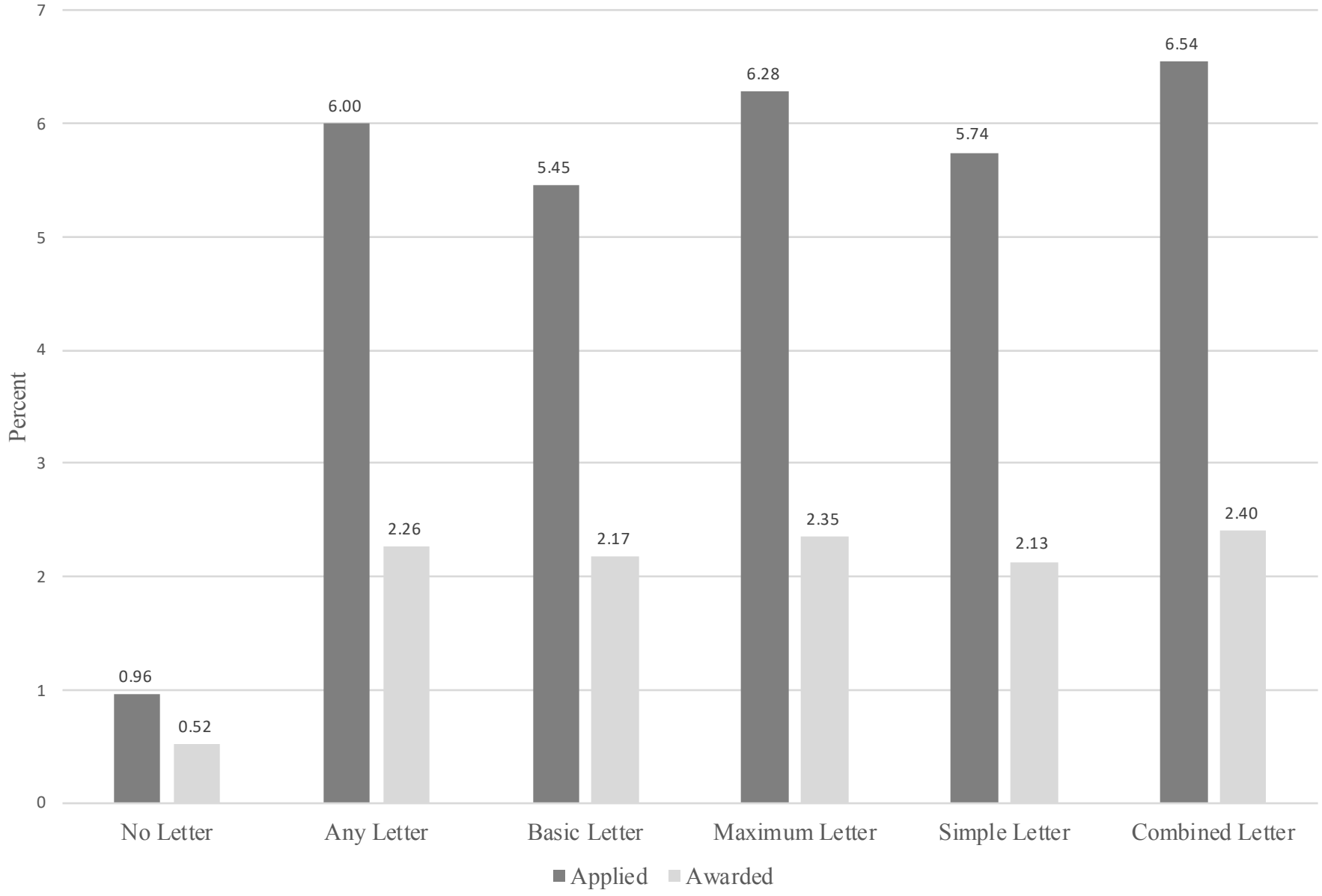


Figure 6: Months on SSI at 6
Month Follow-Up, Conditional on Receiving SSI
Months
5
4.8
4.6
4.4
4.2
4
3.8
3.6
4.00
4.74
4.75
4.70
4.78
4.75
No Letter
Any Letter
Basic Letter
Maximum Letter
Simple Letter
Combined Letter

Figure 7: Applications and Awards at 9 Month Follow-Up



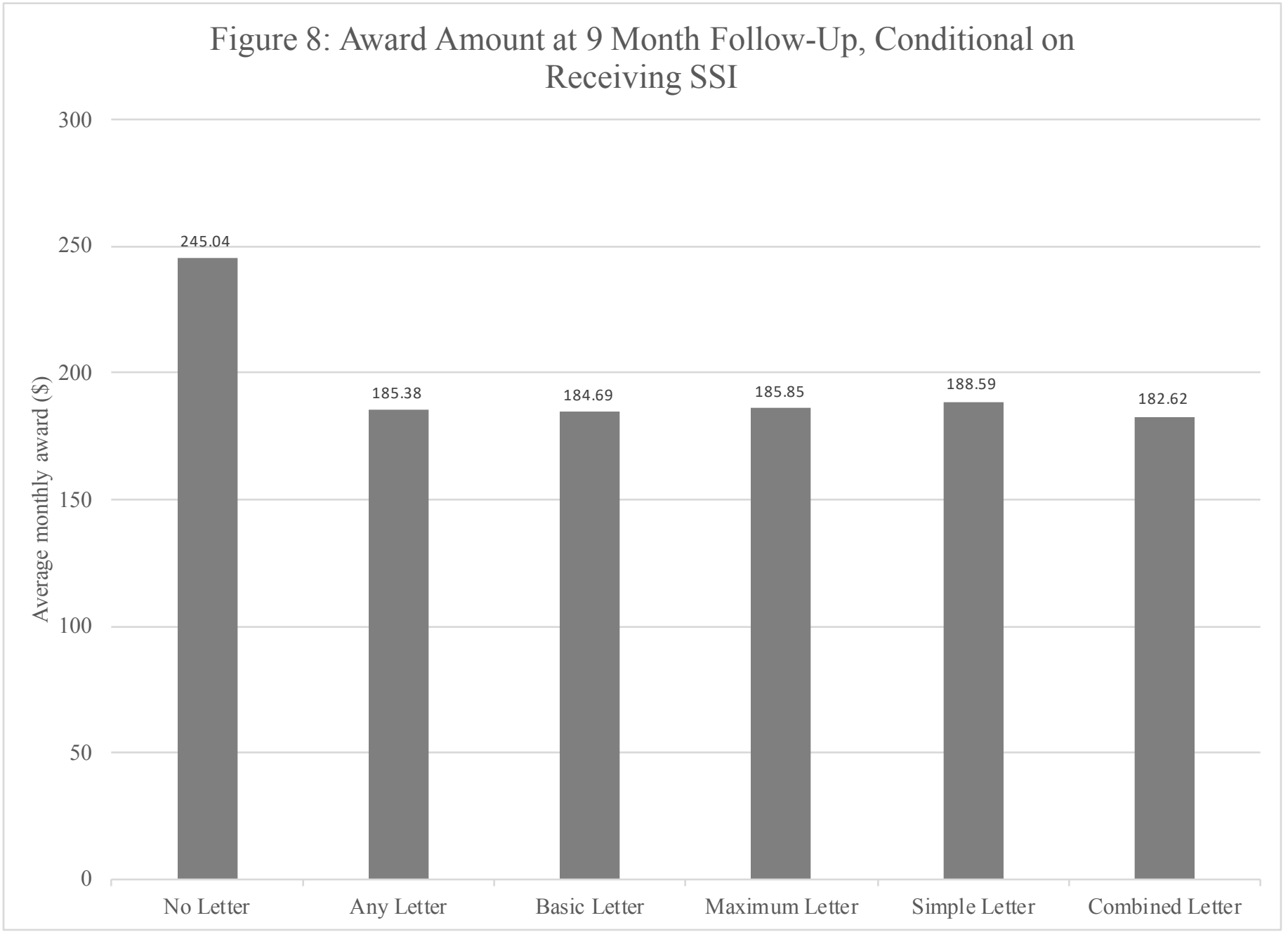


Figure 8: Award Amount at 9 Month Follow-Up, Conditional on Receiving SSI
Average monthly award ($)
300
250
200
150
100
50
0
245.04
185.38
184.69
185.85
188.59
182.62
No Letter
Any Letter
Basic Letter
Maximum Letter
Simple Letter
Combined Letter

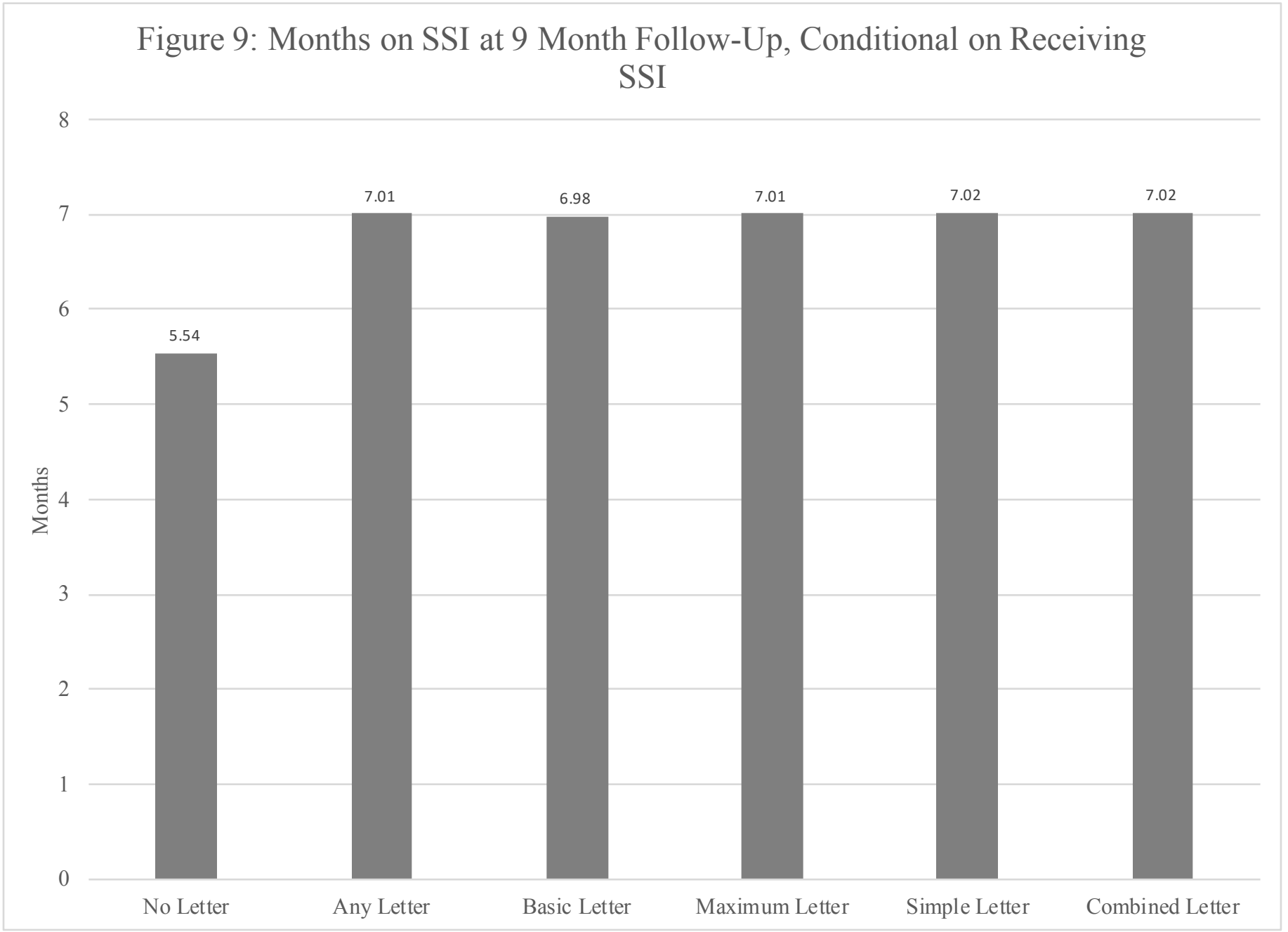


Figure 9: Months on SSI at 9 Month Follow-Up, Conditional on Receiving SSI
Months
8
7
6
5
4
3
2
1
0
5.54
7.01
6.98
7.01
7.02
7.02
No Letter
Any Letter
Basic Letter
Maximum Letter
Simple Letter
Combined Letter