Stigma and Social Safety Net Participation

Kelsey Pukelis* Alice Heath† Michael Holcomb‡

September 4, 2024

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Abstract

Stigma may impede participation in social safety net programs and impose utility costs on individuals already receiving benefits. We use a nationally representative survey with descriptive and experimental components to document five facts about stigma and participation in the Supplemental Nutrition Assistance Program (SNAP). First, many individuals hold stigma-related beliefs about SNAP participation, and grocery stores are a setting with high potential for stigma. Second, individuals who currently participate in SNAP and who have more close acquaintances who use SNAP have lower levels of stigma. Third, most respondents overestimate how much others would judge SNAP participation, with participants overestimating more than non-participants. In the experimental portion of the survey, we find that randomized interventions have

*Harvard Kennedy School, 79 JFK Street Cambridge, MA 02138, kelseypukelis@g.harvard.edu.

†Harvard Kennedy School, 79 JFK Street Cambridge, MA 02138, alice_heath@hks.harvard.edu.

‡Harvard Kennedy School, 79 JFK Street Cambridge, MA 02138, mholcomb@g.harvard.edu. We would like to thank Marcella Alsan, Anthony Bald, Michela Carlana, Katherine Coffman, David Cutler, Elizabeth Linos, Jeffrey Liebman, Savannah Noray, Mark Shepard, Stefanie Stantcheva, Richard Zeckhauser, and seminar participants from several Harvard graduate student workshops for helpful comments (Economics & Social Policy, Public & Labor Economics, Graduate Political Economy, Experimental Working Group, and Economics of Health Equity Reading Group). We also appreciate useful conversations with David Deming, Claudia Goldin, Robert Greenstein, Jennifer Hochschild, Allison Lacko, Eliana La Ferrara, Matthew Notowidigdo, Matthew Rabin, Parker Rogers, Maya Sen, Emily Silcock, Winnie van Dijk, and employees from the U.S. Department of Agriculture, Food and Nutrition Service's SNAP Research and Analysis Division and Office of the Under Secretary for the Food, Nutrition, and Consumer Services. We are especially grateful for assistance from Ashley Anthony, Michael Robinson, and Cara Karter from mRelief. This research has been supported by a James M. and Cathleen D. Stone PhD Scholar fellowship from the Multidisciplinary Program in Inequality & Social Policy at Harvard University. This material is based upon work supported by the National Science Foundation Graduate Research Fellowship under Grant No. DGE1745303. Any opinion, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation. This study was pre-registered with the American Economic Association's registry for randomized control trials under AEARCTR-0011634.

heterogeneous effects: they increase stigma among Republicans and current SNAP participants and decrease stigma among non-participants and Democrats. Finally, one intervention that addresses a common reciprocity concern increases interest in take-up among eligible non-participants but decreases support for SNAP spending across the whole sample. Together, these findings suggest the importance of stigma and social norms for influencing take-up of a large, targeted transfer program.

1 Introduction

Targeted social safety net programs are a core component of poverty-reduction efforts in the U.S., and participation in many programs can have positive effects on economic and health outcomes (Hendren and Sprung-Keyser, 2020). However, by the very nature of limiting participation, targeted programs may evoke social judgments about those who participate. By reserving benefits for society's vulnerable, eligibility criteria may make program participation a social signal of material hardship that could garner negative judgments—or "stigma"—from oneself and others. Additionally, by reflecting a desire to limit government spending on benefits, targeting may amplify social norms about who most "deserves" benefits. For example, widowed women, children, the elderly, and disabled individuals have historically been prioritized for benefits over other demographic groups such as working-age, single adults (Greenstein, 2022; Saez, 2021). If individuals self-enforce social fairness norms, then some eligible individuals may decide not to participation in programs and potentially forsake large monetary benefits.

In this paper, we aim to understand how much people experience stigma related to participation in the social safety net, the form that stigma takes in this context, and whether it is possible to reduce stigma and thus increase interest in SNAP participation. Understanding the relationship between stigma and social safety net participation is economically important for two reasons. First, stigma could impose psychological costs on potential applicants, thereby deterring participation among eligible households (Moffitt, 1983; Currie, 2006). While stigma has been theorized as an ordeal cost (Nichols and Zeckhauser, 1982), the screening properties of stigma are ultimately an empirical question (Kleven and Kopczuk, 2011). Second, stigma imposes costs on inframarginals: those who would participate in transfer programs with or without stigma costs (Anders and Rafkin, 2024). Therefore, policies which reduce the stigma costs of participating in the program—which may be distinct from stigma costs experienced at application—may result in first-order welfare gains among low-income groups.

We use a nationally representative survey to examine the nature of stigma in the context of the Supplemental Nutrition Assistance Program (SNAP). Our survey design is guided by three primary questions. First, to what extent and in what contexts do individuals express stigma related to SNAP participation? Second, are individuals who express lower levels of stigma more likely to participate in SNAP? Third, is stigma malleable, and does affecting expressed stigma change willingness to participate in SNAP?

We focus on SNAP because it is a large and well-known targeted transfer program about which social norms might be particularly salient. Relative to participants in other transfer

programs with more narrow eligibility criteria, SNAP participants are diverse: they include families, college students, the elderly, and working and disabled individuals (FNS, 2024). Moreover, policy discussions about the program often relate to social judgments about participation, such as work requirements for able-bodied adults (Bauer and East, 2023; Luhby, 2023; Schanzenbach, 2017).

We define stigma as negative beliefs and attitudes that individuals hold when they consider their own and others' participation in SNAP. We follow existing literature on social norms, including in the context of the social safety net (Lasky-Fink and Linos, 2023), and develop twelve survey questions that capture three distinct dimensions of stigma: self stigma, social stigma, and stigmatizing beliefs.[1] Self stigma refers to negative feelings and beliefs that individuals experience internally when they consider participating in SNAP. These include feelings of shame, inferiority, and loss of a valued identity, and would exist regardless of whether their participation is observed by others. Social stigma refers to negative attitudes or behaviors that individuals anticipate from others who might observe their SNAP participation; individuals may fear being judged, looked down on, or treated poorly. Stigmatizing beliefs are negative beliefs or attitudes that individuals hold about others who participate in SNAP. These negative views of others may even be held by participants themselves (Goffman, 1986). We also capture "overall stigma" with an index that aggregates the questions in the self and social dimensions.

Our survey sample consists of 1,245 U.S. adults and is nationally representative on age, race, and gender. The survey consists of a descriptive component and an experimental component. The descriptive component measures knowledge and opinions about SNAP, levels of stigma across demographic groups and the contexts in which individuals experience stigma. We also capture incentivized measures of second-order beliefs to assess whether beliefs about other people's stigmatizing beliefs are accurate. The experimental component tests whether presenting information or vignettes about SNAP participation lowers stigma and increases prospective take-up.

Three facts summarize our descriptive findings. First, many individuals report self stigma, social stigma, and stigmatizing beliefs in the context of SNAP. Grocery stores appear to be a setting with high potential for stigma: 90 percent of current and past SNAP recipients expect their participation status to be observed by grocery store cashiers and over 50 percent believe that they would be judged negatively by other store shoppers for using SNAP. In contrast, current and past recipients report that their SNAP status is less visible in other settings, including with family and friends, employers, and in the community. In these other settings, participants still report that they anticipate negative judgment—especially

[1] These correspond broadly to the three dimensions used by Lasky-Fink and Linos (2023).

from employers and the broader community—but the lack of visibility may make stigma costs less relevant. Across all the social groups we asked about, current and past SNAP recipients report the least negative judgement from caseworkers.

Second, levels of stigma associated with SNAP participation vary across the population. Women, those with lower educational attainment, and Democrats report lower levels of overall stigma. Individuals who are White or Black report lower levels of overall stigma than individuals of another race. Because of the potential for stigma to prevent participation, we first focus on the relationship between stigma and SNAP participation status. We find that across all three dimensions of stigma, current SNAP participants report the least stigma, and likely ineligible non-participants report the highest levels of stigma. This relationship is strongest for social stigma: even after controlling for demographic characteristics, current participants report levels of social stigma that are over half a standard deviation below the population mean. These findings are correlational, but suggest that stigma may inhibit take up, and that social stigma may be more important to the take-up decision than self stigma or stigmatizing attitudes. There may also be reverse causation: once on the program, individuals may update their beliefs about stigma either because their experiences differ from their expectation or to reduce feelings of cognitive dissonance.

We also capture a relationship between stigma and social networks. Even among non-recipients, individuals who have more close relationships with SNAP participants have lower levels of stigma. The relationship is strongest for self stigma: respondents who report that more of their closest family and friends have participated in SNAP report lower feelings of internal shame about SNAP participation themselves. This is consistent with a process in which learning about others' participation in SNAP—particularly the participation of close acquaintances—generates feelings of empathy and connection that reduce stigma. Furthermore, personal connections may matter more than environmental factors in explaining levels of stigma: in our sample, an individual's personal network is more strongly correlated with stigma than the share of individuals in a person's county of residence who use SNAP.

Third, most respondents overestimate how much others judge SNAP participation. We elicit incentivized second-order beliefs by asking respondents to estimate the prevalence of stigmatizing attitudes for two questions: one about judgement at the grocery store and another about motivation to work. For both questions, respondents' average second-order estimate was more than double the true first-order average, and equal to the response of the person at the 82nd percentile. Current participants were more likely to overestimate others' stigmatizing beliefs, despite the lower levels of stigma they hold themselves.

These descriptive facts provide insight into the nature of stigma in the context of SNAP and point to potential avenues for reducing stigma. First, efforts to reduce visibility of

SNAP in the grocery store may result in less stigma; emphasizing options to shop online or use self-checkout kiosks may reduce stigma concerns at the point of application. Second, organizations could consider leveraging existing social networks to encourage participation and reduce stigma. For non-enrolled eligible individuals, learning that people they know participate may encourage participation. For current enrollees, exposure to other SNAP participants may reduce stigma. Finally, correcting beliefs about stigmatizing attitudes in the population could increase take-up. The descriptive facts we uncover are correlational, so future work should test these hypotheses in a causal framework.

The second component of our survey is experimental. We aim to test whether it is possible to decrease stigma using short informational or vignette interventions, and whether decreasing stigma increases interest in SNAP participation. We randomize respondents' exposure to three different text-based interventions and measure their effect on self stigma, social stigma, stigmatizing beliefs, and overall stigma. We also assess the interventions' effects on respondents' willingness to take up SNAP, which we measure using survey respondents' clicks to and completions of a SNAP eligibility screener. Through a data partnership with the non-profit that administers the screener, we can observe the rate at which individuals exposed to each intervention complete the screener and the proportion of those individuals who are likely eligible for SNAP.

We designed the interventions following interviews with current and former SNAP participants. In the "Work" vignette intervention, a hypothetical participant explains that SNAP helps them free up resources to search for a job so that they can be self-sufficient and not use SNAP benefits in the future. In the "Kids" vignette intervention, the participant explains that SNAP helps them provide nutritious food and educational materials for their children, so their children will not need to use SNAP when they grow up.

Neither of these interventions have a detectable effect on any of our stigma indices nor on click-through rates or completions of the eligibility screener. However, the estimates of the effects on self stigma, social stigma, and stigmatizing belief indices all have negative signs, suggesting the interventions may have reduced stigma.

Moreover, the null effects across the whole sample mask variation by demographic group. In particular, the interventions move individuals with different political affiliation and SNAP participation status in different directions. Both the "Work" and "Kids" interventions significantly decrease overall stigma among Democrats and increase stigma among Independents and Republicans, though the increase among non-Democrats is not statistically significant. The "Work" intervention increases stigma among current SNAP participants, while decreasing it among non-participants. We hypothesize that the increase in stigma among current participants may be due to the descriptions of applicants who aim to stop using SNAP; this

language may evoke feelings of shame among those who are currently using SNAP. We do not find heterogeneous responses by other demographic characteristics, including gender, race, education, or income.

If the opposite-signed effects that we find exist across other interventions designed to move stigma—not just those we tested here—then our findings have implications for the potential effectiveness of outreach campaigns with uniform messaging across different social groups. Null effects on average may result from moving sub-populations in different directions. Targeting different messaging to different populations may be a more promising route for moving stigma and take up of the social safety net. Heterogeneous responses may also explain null (and some negative) findings in other research testing the effect of stigma-reducing interventions on participation in the social safety net (Finkelstein and Notowidigdo, 2019; Bhargava and Manoli, 2015).

Our third "Information" intervention addresses a potential concern, expressed by participants in our exploratory interviews, that participating in SNAP would take benefits away from others who are more needy than themselves. The intervention informs participants that there is no legislative cap in federal SNAP spending, so enrolling in SNAP will not take funds away from others. As with the vignette interventions, the "Information" intervention has no detectable effect on overall stigma for the whole sample, but opposite-signed effects by political affiliation and SNAP status. However, the intervention does significantly reduce the number of individuals who believe their participation in SNAP prevents others from participating and increases the rate at which individuals complete the third-party eligibility screener by 4.5 percentage points (66 percent). Importantly, this increase in completions of the screener is almost entirely driven by individuals who were likely eligible for SNAP, suggesting that the intervention may be a promising way to increase take-up among eligible individuals.

We also find that the "Information" treatment significantly decreases support for SNAP spending. This decrease is driven by a large decline in support among Republicans. This may explain why similar interventions are not widely used by advocates in campaigns: although it may reduce prospective participants' concerns about fairness and increase take up, the message decreases political support for SNAP in the population as a whole. Nonetheless, this intervention may prove a promising strategy for one-on-one outreach through hotline phone calls or individual consultations.

Related Literature Our paper connects to literature on the take-up of transfer programs, the economics of SNAP, the effects of social identity and signaling on economic decision-making, and preferences for redistribution.

First, our paper contributes to a literature that examines barriers to participation in the social safety net. Three main factors are theorized in prior literature to explain imperfect take-up: lack of information, transaction costs, and stigma (Currie, 2006; Moffitt, 1983). Prior causal studies have typically focused on information and transaction costs. Some field experiments have tried to increase take-up with stigma-reducing interventions, but found null and some negative effects (Finkelstein and Notowidigdo, 2019; Bhargava and Manoli, 2015). Lasky-Fink and Linos (2023) is a key exception and found that a stigma-reducing intervention increased take-up of rental assistance. Measuring stigma directly allows us to examine whether stigma exists, who experiences stigma, and probe why prior interventions designed to address stigma may have failed.

We also contribute to the growing literature on the economics of SNAP. Existing papers include the determinants of SNAP enrollment (Ganong and Liebman, 2018; Pukelis, 2024), the labor supply impacts of program participation (East, 2018; Hoynes and Schanzenbach, 2012), work requirements (Gray et al., 2023; Bauer and East, 2023) , and the effects of participation on longer-run human capital (Hoynes, Schanzenbach and Almond, 2016; Bailey et al., 2023). Some papers consider the potential stigma effects of two changes to SNAP redemption policies: the switch from paper vouchers to debit-like cards (Currie and Grogger, 2001) and online grocery shopping with benefits (Pukelis, 2023). These papers find null effects on take-up rates and enrollment, respectively, although the policies confound effects of stigma and transaction costs. Other papers examine the role of social networks on safety net participation (Aizer and Currie, 2004), and recent papers point to the potential role of stigma in this context (Celhay, Meyer and Mittag, 2022). Anders and Rafkin (2024) find that changes in SNAP thresholds increase enrollment among inframarginal households, but their evidence suggests this is due to reduction of informational frictions rather than reduced stigma.

A related literature speaks to the role of social identity, signaling, and misperceptions in economic decision-making. Previous papers have described the role of these social factors in labor markets, education, and law enforcement (Bursztyn and Yang, 2022; Bursztyn and Jensen, 2017; Shayo, 2009). Our descriptive and experimental findings suggest both social and self image may matter in the context of social safety net program receipt and redemption.

Finally, a large literature studies how preferences for redistribution affect the generosity and nature of redistributive programs in the U.S. (Alesina, Ferroni and Stantcheva, 2021; Alesina and Giuliano, 2011; Alesina, Glaeser and Sacerdote, 2001). These studies focus on taxpayer or voter preferences; the same social and political attitudes may also affect individuals' take-up decisions. The effect of social and political attitudes on take-up has been studied in other contexts, including differential take-up of marketplace health insurance by political

affiliation (Lerman, Sadin and Trachtman, 2017) and its downstream effects on healthcare markets (Bursztyn et al., 2022). Meanwhile, a literature in political science points to the rise of polarization and increasing importance of partisanship as a social identity (Iyengar et al., 2019; Iyengar and Krupenkin, 2018). Our paper provides evidence that political affiliation and polarization affect not only attitudes towards SNAP but also participation decisions of intended program recipients.

Roadmap Our paper proceeds as follows. Section 2 provides background on SNAP program administration, eligibility, application procedures, and redemption processes. Section 3 details our survey design, measurements, and experimental interventions. Section 4 presents our descriptive findings, including the association between stigma and take-up, the visibility and judgment of SNAP among different six social groups, misperceptions of stigma levels, and the relationship between social networks and stigma. Section 5 presents our experimental findings, and Section 6 concludes.

2 Background: The Supplemental Nutrition Assistance Program (SNAP)

SNAP provides eligible low-income households with vouchers to purchase food at participating stores.[2] Individuals receive SNAP benefits monthly, and approximately 1 in 8 individuals in the U.S. receives SNAP benefits in any given month. In Fiscal Year 2023, the program distributed a total of $107 billion in benefits; SNAP spending accounts for approximately 11 percent of all U.S. grocery sales.[3]

Administration of SNAP There are three major entities involved in the administration of the SNAP program: the federal government, state governments, and vendors such as grocery stores. The U.S. Department of Agriculture's Food and Nutrition Service (USDA FNS) oversees implementation of the SNAP program by setting national standards such as baseline eligibility standards. FNS also authorizes retailers to accept SNAP, and the federal government provides funding for SNAP benefits. State agencies administer the program and have some flexibility to set state-specific parameters, including for eligibility. They receive applications, make eligibility determinations, and issue state-specific Electronic Benefit

[2]Parts of this section are inherited from Pukelis (2023) and Pukelis (2024); some language from those papers is quoted here without attribution.

[3]Figures calculated using SNAP Data Tables, U.S. Census Population estimates, and USDA Food Expenditure Series.

Transfer (EBT) cards. Vendors, including grocery and convenience stores, receive payments through EBT cards and provide food products to customers.

To receive benefits, households must apply and be found eligible. Households can apply in-person, by mail, fax, phone, or online, and must provide documentation of residency, income, and expenses. Applications are increasingly conducted online: Appendix Figure A.1 shows that in California and Massachusetts, over 65 percent of SNAP applications have been submitted online since early 2020. All applicants must also participate in an in-person or phone interview with a caseworker, which are potential sites of stigmatizing interactions.

Eligibility and Benefit Levels To be eligible for SNAP, a household must meet three tests: a gross income test, a net income test, and an asset test. Gross income limits are typically 130 percent of the Federal Poverty Level (FPL), but states can set this threshold as high as 200 percent of the FPL. The net income limit is 100 percent FPL, where net income is determined by subtracting allowed deductions from gross income. Total household assets must be valued at less than $2,750, excluding home and retirement accounts and a portion of the primary vehicle (CBPP, 2015). These tests restrict benefit receipt to those below or near the federal poverty line. Therefore, SNAP participation can signal that a household is low income.

The federal government sets a maximum benefit amount that is determined by household size; we present these maximum benefit amounts by household size for each survey wave in Table A.1. Maximum benefit amounts are fixed at the same level for the lower 48 states and DC. A household whose net income is $0 will receive the maximum benefit amount; the benefit amount then decreases by 30 cents for each additional dollar of net income. Given the complexity of determining eligibility and benefit amounts, most households are uncertain about their eligibility status and potential benefit amounts when they apply (Daponte, Sanders and Taylor, 1999).

Redeeming SNAP benefits The process of redeeming SNAP benefits for food items presents several frictions which may amplify recipients' feelings of stigma. SNAP benefits are typically redeemed in-person at an authorized food retailer's store and benefits can be used to purchase only eligible food items. To redeem their benefits, each SNAP household is issued a state-specific Electronic Benefits Transfer (EBT) card, which often looks and acts like a debit card. Any balance exceeding the benefits available on the EBT card or items not eligible for SNAP must be paid for using another form of payment. Some individuals report that transactions using an EBT card take longer than transactions with a typical debit or credit card, rendering their SNAP status visible to other shoppers (Heath, Holcomb

and Pukelis, 2022).

Two policy changes have likely lessened potentially stigmatizing shopping experiences for SNAP recipients: the switch from paper food stamps to the use of EBT cards, which was adopted by different states between 1993 and 2003[4], and the ability to make purchases online using SNAP at select retailers' websites, which began in 2019 (Pukelis, 2023).

3 Survey Design

We conduct our survey on a nationally representative sample of 1,245 U.S. adults. Our sample includes current participants (13 percent), past participants (22 percent), and those who have never participated (64 percent), providing a comprehensive view of beliefs and attitudes about the program from a diverse set of respondents. Our survey measures knowledge of and opinions about SNAP, with a particular emphasis on attitudes toward one's own (potentially hypothetical) participation. We also include an experimental component to test whether presenting information or vignettes about SNAP participation could lower stigma and increase prospective take-up as measured by completing an online eligibility screener.

3.1 Preliminary Qualitative Interviews

Before we designed the survey, we conducted semi-structured interviews with SNAP recipients and social workers to learn about participants' experiences of stigma and to generate compelling messaging interventions. We recruited interviewees from an organization that provides wrap-around support services for formerly incarcerated individuals. We interviewed four current or former SNAP recipients and six staff members who connect participants with employment opportunities and social services, including SNAP. Both sets of interviewees included men and women.

Common themes emerged from these interviews that informed our hypotheses, survey questions, and interventions.[5] First, participants emphasized the importance of working to provide for themselves and a sense of pride that might create reluctance to receive benefits. Second, both participants and social workers reported that using SNAP benefits to help provide for children was generally viewed as a legitimate reason to enroll. Third, the interviews highlighted participants' concern about social judgments from peers, family members, and community members if they found out about their SNAP receipt. Finally, SNAP participants indicated an aversion to using benefits if they felt they were taking them away from

[4]The USDA's SNAP Policy Database provides adoption dates.

[5]These themes are echoed in other qualitative and survey work released around the time we completed our interviews (Carper, 2022; Amaral and Gonzales, 2022; Avila et al., 2021).

others who needed them more.

Program staff reported using messaging that they found anecdotally successful in encouraging individuals to overcome these barriers to SNAP participation. They emphasized value of additional, non-food benefits from some states' SNAP Employment and Training programs, including money for transportation and clothes for job interviews. More generally, staff reported that explaining how using SNAP benefits for food frees up money for shelter and job seeking costs was compelling to potential recipients. This informed our interventions, described in more detail below.

3.2 Sample and Data Collection

We ran our survey in two waves: Wave 1 took place from September 18-20, 2023, and Wave 2 took place from January 18-19, 2024. Our initial recruitment sample consists of a nationally-represented sample of 1,707 respondents from Prolific, an online survey platform. The sample was chosen to be representative on gender, age, and race. The survey was administered through Qualtrics. It was designed to take 10-15 minutes, and respondents were compensated $2.20, or the equivalent of roughly $12 per hour, plus potential bonus payments on incentivized questions. More details on participant recruitment are included in Appendix C. We pre-registered our survey experiment with the American Economic Association's registry for randomized control trials (Heath, Holcomb and Pukelis, 2024).

Table 1 shows sample characteristics of the full U.S. population, our full survey sample, and our final analysis sample after pre-registered data quality restrictions that we describe in Appendix C. Our survey sample is representative on age, gender, and race, which were the characteristics targeted for sampling. However, as is typical in online surveys (Stantcheva, 2022), our sample is more educated, more likely to identify as Democratic, and less likely to be Hispanic than the full U.S. population. Importantly for our purposes, the sample closely matches the population SNAP participation rate, despite this not being a sampling target. This increases our confidence in our elicitation of SNAP participation, described in more detail below.

3.3 Survey Structure

The survey begins with questions on state of residence, household size, and SNAP participation status; we collect these first as the responses informed downstream question wordings and stratification for the experimental portion. We then ask respondents a set of questions regarding their general preferences for redistribution and beliefs about the SNAP program and recipient population. In the final portion of the descriptive questions, we ask respondents

about the perceived visibility and judgement of SNAP receipt.

In the experimental portion of the survey, we randomized respondents into a control group or one of three interventions: one information treatment and two vignettes. We then measured stigma across three dimensions—self stigma, social stigma, and stigmatization towards others—and interest in SNAP enrollment as measured by the completion of an online eligibility screener. Finally, we collected additional demographics and open-ended reactions to the survey.

Figure 1 shows a flow-chart of the general survey design. In the following sub-sections, we describe the survey elements that we designed to answer our research questions.

3.4 Measuring Stigma

We define stigma as the negative beliefs and attitudes that individuals hold when they consider their own and others' participation in SNAP. We use three indices to capture three dimensions of stigma: self stigma, social stigma, and stigmatizing beliefs. We also capture the extent to which individuals expect to be observed and judged in different social settings, and we capture second-order beliefs about stigmatizing attitudes.

Stigma Indices We capture the three dimensions of stigma using sets of questions that we aggregate into three indices. These questions are listed in Appendix Table A.2. Several of the questions draw on language used in Lasky-Fink and Linos (2023); we also add questions based on our qualitative work. We also capture "overall stigma" with an index that aggregates the questions in the self and social dimensions.

For self stigma and social stigma, we ask respondents to rate their agreement with a series of statements on a 5-point Likert-style scale from Strongly Disagree to Strongly Agree. To generate the self stigma index, we use three statements about internal feelings of shame and inferiority. For example: "If I applied for SNAP, I would think less of myself." To generate the social stigma index, we use an additional three questions ask about anticipated judgment from others. For example: "If someone found out I applied for SNAP, they would think I lack work ethic."

To measure stigmatizing beliefs, we ask individuals five questions that assess their feelings towards SNAP participants. Instead of asking respondents to respond on a Likert scale, we ask them to assess how many SNAP participants out of every 100 they would feel negatively towards. For example, we ask "Out of 100 individuals receiving SNAP, how many would you judge negatively if you noticed them using SNAP in the grocery store?" This allows respondents to express more nuanced views about who is deserving of benefits. These stigma

measures capture the portion of SNAP recipients towards whom individuals hold stigmatizing beliefs.

We aggregate the questions associated with each stigma dimension into an index using the method described in Kling, Liebman and Katz (2007). We calculate the mean and standard deviation of answers in the control population and use this to standardize responses to each question for all individuals. Then, we take the average of these standardized responses across sets of questions to obtain the final score for each index.

Second-order beliefs To assess the accuracy of respondents' perceptions of stigma in the broader population, we also collect second-order beliefs of stigmatization. We ask respondents to estimate the average of all survey responses to two stigmatization questions to which they had previously provided a response: (1) the number of people they would judge at a grocery store and (2) the number of people who are less motivated to work. Both these second-order questions were incentivized with bonus payments, which we describe below.

Observability and judgement We ask respondents to assess the degree to which their SNAP participation is visible to six groups, and the extent to which members of the six groups judge them negatively due to their SNAP participation. The six groups are grocery store cashiers, other grocery store shoppers, SNAP office workers, employers, family and friends outside one's household, and other community members. These are elicited on 5-point Likert-style scales. For non-participants, we ask them to imagine themselves in the place of someone receiving SNAP. For former participants, we ask them to think about when they were participating.

Beliefs about SNAP recipients and program design Stigma might be driven by beliefs about who participates in the program or program design. First, individuals might over- or under-estimate the prevalence of SNAP receipt or the frequency of working while receiving SNAP. We ask respondents to estimate these quantities; these factual questions are incentivized.

Second, based on our qualitative interviews and other survey work, the belief that one's own SNAP receipt might crowd out others' is a commonly reported concern regarding accessing benefits. In fact, SNAP is an entitlement program and funding is guaranteed to cover benefits for all eligible applicants. To assess the role of this misperception, we ask respondents whether they think SNAP benefits are rationed. To avoid priming and acquiescence bias effects, we randomize the wording of the questions to vary whether the correct answer is true or false. These factual questions are incentivized, and we ask respondents their degree

of confidence in their answer.

To assess general preferences for redistribution that might influence stigmatization of benefits receipt, we modify a General Social Survey (GSS) question about preferred spending levels on programs helping the poor. Further, given the prevalence of racialized beliefs about benefits recipients (Alesina, Ferroni and Stantcheva, 2021; Gilens, 2009), we also ask about preferences for redistribution for Black people. In the second wave, as an outcome after the interventions, we add a question that asks generally about support for government spending on SNAP. This question is modeled after similar questions in the GSS.

3.5 SNAP Participation and Interest in SNAP

In order to measure the association between stigma and prior take-up, and to assess the impact of our interventions on prospective take-up, we measure participation in SNAP and interest in SNAP enrollment. We also measure other factors that may be drivers of SNAP participation.

Eliciting SNAP participation We ask respondents to report whether they are currently participating in SNAP, have participated in the past, or have never participated. Participation in benefits programs is often under-reported in surveys, which may be due to stigma (Meyer, Mok and Sullivan, 2009; Meyer, Mittag and Goerge, 2022; Celhay, Meyer and Mittag, 2022). To more accurately elicit SNAP participation, we use state-specific program names (e.g. CalFresh in California) and photos of state-specific EBT cards; we present the EBT card images in Appendix Figure A.2. These strategies appear to have effectively addressed under-reporting concerns: the rates of reported SNAP participation in our sample match those in the true population.

Interest in SNAP enrollment To measure interest in enrolling in SNAP, we partnered with the non-profit mRelief, which operates in all 50 states, to provide a link to an online SNAP eligibility screener. The eligibility screener asks basic questions about household demographics, and assesses eligibility based on categorical eligibility and gross income from the last month. Following the eligibility screener, respondents can click on a link to start an application, either on the non-profit's website, where they can access a streamlined version of the application and then submit it to the state, or on their state's website directly.

We measure whether a respondent clicks the link, which we interpret as a proxy for interest in enrolling in SNAP. For individuals in each of the experimental groups, we are able to observe how many started the eligibility screener, completed it, and went on to start an online SNAP application on their platform, if it was available. We frame the link to survey

respondents as providing them with the information as a courtesy. We tell respondents that their information will not be linked to their individual survey responses to reduce potential concerns about privacy or data security.

Other determinants of take-up In order to assess the role of information and perceived transactions costs, we ask respondents a series of questions designed to capture other costs and benefits of SNAP enrollment. We ask their perceived probability their household qualifies for SNAP benefits, from 0 to 100 percent; the maximum benefit amount they think a household of their size would receive; and their perceived difficulty of applying for SNAP on a scale from 1-10. The maximum benefit amount question has a factual answer and is incentivized.

3.6 Experimental Interventions

Experimental design Respondents are blocked into three groups: current SNAP Participants, former SNAP Participants, and never-participants. They are then randomly allocated to one of four groups: Information, Work Vignette, Kids Vignette, and Control. In the "Information" treatment, we tell respondents that one's SNAP receipt is independent of others' decision to participate. In the two vignette treatments, we provide a statement from a hypothetical SNAP recipient describing how they use their benefits. The control group saw no additional substantive content, but a short sentence about continuing the survey. We summarize the interventions here, and full intervention texts are shown in Appendix C.

- **Information**: This intervention informs respondents that their participation decision is independent of the availability of benefits to others. This intends to mitigate concerns about taking benefits from those who are more needy, which was the most common reported hesitation to enroll in a recent survey (Avila et al., 2021) and was also reported our interviews.

- **Work vignette**: This intervention employs narratives repurposing SNAP as tool to help find work and build self-sufficiency.

- **Kids vignette**: This intervention employs narratives repurposing SNAP as a tool to help provide for dependent children and build their self-sufficiency.

- **Control**: The control group sees no additional information.

3.6.1 Demographics and SNAP eligibility

Demographic questions In the very beginning of the survey, we elicit household size and state of residence. These demographics informed downstream questions: household size was used as an input to the question about maximum benefit amounts, and state of residence informed the wording of the SNAP participation question. In wave 1, we ask a series of final demographic questions including age, race, gender, political affiliation, ZIP code, education, work status, and income. Given the possibility of priming effects, particularly for the self-reported political affiliation, in wave 2 we randomize whether these questions appear at the very beginning or very end of the survey. No priming effects are detected from this test.

Measuring eligibility In practice, full SNAP eligibility is determined by three tests: gross-income, net-income, and assets. In order to reduce the complexity and length of the survey, we only measure gross-income eligibility using reported income and household size. Thus, we use the term "eligibility" for simplicity to mean gross-income eligibility throughout our analysis.

3.7 Potential Concerns

Surveys generally, and online surveys in particular, are subject to concerns about response quality. Respondents might use bots to take surveys or rush through them to maximize earnings per minute, resulting in low-quality responses. Further, respondents may engage in "satisficing," giving haphazard answers to reduce cognitive burden (Krosnick, 1991). Finally, respondents may misreport their true beliefs or preferences due to social desirability bias, the desire to be viewed favorably by others or to align responses with an altruistic self-image (Stantcheva, 2022).

Response quality To improve the quality of survey responses we implement a number of pre-registered data restrictions, such as removing bots and those who fail an attention check. These data restrictions are outlined in Appendix C. We also make efforts to reduce the cognitive burden of our survey by minimizing complex language and providing visual aids where possible. Further, we occasionally remind respondents that their true and thoughtful responses are key to our data collection. We use a pseudo-attention check that asks respondents to report whether their answers were high-quality and whether we should include them in our study. This also serves as a priming device and is placed immediately before the interventions to ensure respondents are paying closer attention throughout the rest of the survey (Stantcheva, 2022).

Incentivized questions For six questions that have factual answers, we incentivize respondents to accurately estimate their answers by awarding $5 bonus payments to the two respondents whose answers are closest to the correct answer for each question.[6] Though the expected value of the incentive is low, the size of the award is more than twice the survey payment, and therefore likely to be salient to participants. We prominently mark bonus payment questions and explain to respondents that the incentive structure encourages them to report their true beliefs.

Social desirability bias Social desirability bias (SDB) is a concern for sensitive survey questions in which respondents perceive a "socially desirable" answer. Of all the questions in the survey, the stigmatization questions likely have the highest potential for SDB since they are asking individuals to admit to judging others. We think SDB is somewhat minimized relative to other survey collection methods because our survey is conducted online and respondents are anonymous. Furthermore, previous studies that directly examine how social desirability and stigma may affect survey responses find limited evidence of mis-measurement (Bursztyn and Yang, 2022; Bursztyn et al., 2023). If present, however, we expect SDB to result in underestimation of the true level of stigmatization. Therefore, at worst, one can view the level of stigmatizing beliefs we find in our survey as a lower bound.

To measure one form of SDB, we ask respondents a series of agree/disagree statements adapted from the Marlowe-Crown social desirability scale from social psychology (Crowne and Marlowe, 1960; Reynolds, 1982). The statements present extremely altruistic traits, and the extent to which participants give socially desirable answers may indicate a tendency to give more agreeable answers instead of their true views. We limit to five questions from the scale that are most similar in domain to our measures of stigma.

To further test for SDB, we randomize "face saving" language in the question prompts that asks individuals how much they judge others (Stantcheva, 2022). Face saving language gives respondents an "out" to admitting to a socially sensitive belief or behavior. In our survey, we randomize language in the question prompt that (1) encourages respondents to provide their opinion, (2) reminds respondents of the confidentiality of their responses, (3) both, or (4) neither. If the level of responses are different across these four groups, this suggests the presence of SDB and gives an estimate of its magnitude.

Across the full control sample, neither the confidentiality nor the opinion language has a significant effect on levels of stigmatization. The opinion prompt increases reported levels of stigmatization for Republicans and Independents, but has no detectable effects for

[6] If more than two respondents were closest, we randomized the payment. We also randomized the payment for correct answers to the true/false question about SNAP rationing.

Democrats. These results suggest that, if anything, levels of stigmatization among Republicans and Independents may be higher than what we find here. Given the importance of these prompts for determining levels of stigmatization, we control for them in analyses where stigmatization is the outcome.

4 Descriptive Findings

Responses to our survey provide evidence that (1) stigma exists in the context of SNAP and grocery stores are settings with high potential for stigma; (2) levels of stigma are heterogeneous, with especially large variation by SNAP participation status, political affiliation, education, and the number of close friends and family who use SNAP; and (3) on average, individuals overestimate the extent to which other individuals hold stigmatizing beliefs about SNAP participants.

4.1 Grocery Stores are Settings with High Potential for Stigma

We find that grocery stores are a setting where individuals anticipate experiencing stigma associated with SNAP participation. Most current SNAP participants expect their SNAP use to be observed by grocery store cashiers and judged negatively by other store shoppers.

Figure 2 (a) shows current and past SNAP recipients' assessments of the likelihood that their SNAP participation status will be observable in six different social settings.[7] Figure 2(b) shows the same respondents' assessments of the likelihood that people in those settings who observe their SNAP participation will judge them negatively. 90 percent of current and past SNAP participants believe that SNAP office workers and grocery store cashiers probably or definitely know their SNAP status. Few respondents believe that SNAP office workers would judge them negatively, but over one third of current and former participants believe that a grocery store cashier would view them very or somewhat negatively. Almost 40 percent of current and past participants believe that other grocery store shoppers probably or definitely know their SNAP status; more than 50 percent believe that other grocery store shoppers would judge them negatively if they observed them using SNAP.

These survey findings provide evidence that the grocery store is a setting in which individuals may face stigma costs related to real or perceived negative social image. Qualitative responses to our survey and interviews add color to these findings: in Appendix B we tran-

[7] We report perceptions of visibility for current and past participants because these individuals–who have experience with SNAP–likely have a more realistic and accurate perception. However, Figure A.3 shows that, on average, perceptions of visibility do not differ meaningfully across individuals with differing levels of experience with SNAP.

scribe quotes in which SNAP participants reported going to great lengths to hide their SNAP status at the grocery store, including covering up their EBT card in the checkout line, using the self checkout when available, and avoiding stores where participants have had negative experiences with cashiers.

Other social settings appear less important for stigma concerns. An important potential setting is the SNAP benefits office. All SNAP applicants are required to participate in an interview with a caseworker in-person or over the phone.[8] There is a robust qualitative literature documenting negative interactions with case workers and hypothesizing that case worker interactions may play an important role in individuals' decisions to participate in programs like SNAP (Schram et al., 2009; Watkins-Hayes, 2009; Masters, Lindhorst and Meyers, 2014). Negative interactions with a case worker in one period may have lasting effects on trust and engagement in the future. Some individuals in our survey provided written comments that described negative experiences with caseworkers (see Appendix B). However, in our survey, current and past SNAP participants believe that SNAP office workers are less likely to judge them negatively than all other social groups, including their family and friends. Most current and past SNAP participants believe that SNAP office workers will judge them neutrally. Appendix Table A.3 shows that this is true for both White and non-White survey respondents, although non-White current participants are around 4 percentage points (47 percent) more likely to expect negative judgement from caseworkers.

Participants vary in how visible they think their SNAP status is to other social groups. Over 40 percent of respondents believe that both employers and other community members would judge them negatively if they knew their SNAP status, but most participants think that they are able to conceal their SNAP status from these individuals. Very few survey respondents who have experience participating in SNAP believe that their family and friends would view them positively if they knew they were receiving SNAP, but most believe their family and friends would be neutral about their participation.

4.2 Stigma is Heterogeneous and Lower Among SNAP Participants

Levels of stigma vary significantly across demographic groups. Table 2 shows that SNAP participation status, political affiliation, income, gender, race, education, and the portion of close friends and family who participate in SNAP are all correlated with the levels of overall stigma that individuals report.

The relationship between stigma and SNAP participation status is important to under-

[8]This requirement was paused in some states during the COVID-19 pandemic.

stand because stigma may prevent participation in SNAP. Figure 3(a) shows how our five stigma indices vary across four groups of respondents in the control group: current SNAP participants, past participants, non-participants who are likely eligible for SNAP, and non-participants who are likely ineligible for SNAP. Across all indices, current participants report the least stigma, and likely ineligible non-participants report the highest levels of stigma. Individuals who are likely eligible but have never participated and past participants report levels of stigma that fall between these two groups. Figure 3(b) plots means of the same indices with controls for income. The estimates become more noisy and the magnitudes attenuate towards zero, but stigma remains lower for participants than for non-participants. Therefore, even conditional on income, stigma is associated with take-up status.

The relationship between stigma and participation status is strongest for the social stigma index: after controlling for demographic characteristics, current participants report levels of social stigma over half a standard deviation below the population mean. The relationship between participation status and our other measures of stigma—self stigma and stigmatizing attitudes—are weaker. This provides suggestive evidence that social stigma—how individuals expect others to judge them if they were to participate in SNAP—may be particularly important to the take-up decision.

This correlational relationship between stigma and participation status could be driven by several factors. One possibility is selection: if stigma varies across individuals but is fixed over time, individuals who are least affected by stigma may have the lowest costs associated with participation in SNAP for other reasons, and so be the most likely to participate. Another possibility is that participating in SNAP could cause perceived stigma to fall. For example, if individuals overestimate the stigma associated with participation, they may update downwards after they participate and learn the level of stigma they actually face. If this were true, perceptions about stigma costs could create a barrier to participation. Motivated reasoning could also cause individuals who choose to participate in SNAP to reduce their self stigma and stigmatizing beliefs if they do not want to think poorly of themselves.

A third possibility is a causal relationship in the opposite direction: high stigma may impede take-up, and reducing stigma may increase the likelihood that an individual chooses to participate in SNAP. If this were true and individuals' beliefs about stigma are malleable, interventions that reduce stigma may lead them to choose to participate in SNAP.[9]

Personal networks also appear to be strongly related to the amount of SNAP-related

[9]These arguments assume that SNAP participation is reported accurately. Another possibility is that the correlation arises due to stigma-induced under-reporting. If people who stigmatize program receipt more are less likely to self report their own participation, then we may also see these results.

stigma individuals perceive and report. Individuals who report that a larger share of their 10 closest friends and family members have used SNAP also report lower levels of stigma. Figure 4 illustrates the relationship between the number of close friends and family who use SNAP and the level of stigma reported. Table 2 shows that this relationship is strongest for our measures of self stigma: having more close family or friends appears to be associated with weaker feelings of internal shame or inferiority. The negative relationship between personal networks and stigma is stronger for individuals with no history of SNAP participation.

Table 3 examines the relationship between stigma and the share of a respondent's personal and local network that uses SNAP. The personal network share appears to be a more important predictor of stigma; this is true regardless of SNAP participation status.

Several factors could explain the relationship between social networks and stigma. First, individuals who are in social networks where high levels of stigma exist may not know that they have friends and family who participate in SNAP because stigma prevents their friends from sharing their participation status. This could result in upward bias of our results due to reporting error in the number of close friends on SNAP. Second, individuals who have family or friends on SNAP may have lower baseline stigma, perhaps because underlying attitudes or material circumstances drive both stigma-related beliefs and participation in SNAP. This is somewhat accounted for with observable demographic and county controls, but any unobservable differences cannot be accounted for. Finally, there could be a causal relationship: having close friends or family who use SNAP may generate feelings of empathy and reduce fear of being judged negatively, both of which may decrease self and social stigma associated with SNAP participation.[10]

We also find a strong relationship between reported levels of stigma and political affiliation, which remains after controlling for income. Republicans hold higher levels of stigma across all dimensions of stigma except social stigma; Democrats hold lower levels of stigma. Table 2 shows that even after controlling for demographic characteristics, Republicans report levels of self stigma that are 0.3 standard deviations larger than those reported by Democrats, and levels of stigmatizing beliefs that are 0.49 standard deviations larger. Independents' stigma levels lie approximately midway between the levels of Democrats and Republicans. There are large differences in self stigma and stigmatizing beliefs by party affiliation, but no significant differences in social stigma: individuals of all parties expect the

[10]There may also be a relationship between social networks and take-up for a reason unrelated to stigma: if knowing more people who participate in SNAP increases your own perceived likelihood of qualifying. Table A.4 shows evidence consistent with this mechanism: those who reported more close friends and family participating in SNAP also reported a higher perceived likelihood of being eligible for SNAP themselves. Individuals reporting larger SNAP networks were also more likely to click on the eligibility screener link, suggesting variation in the reported eligibility probability may capture real differences in perceptions that influence behavior.

same levels of stigma from other individuals.

Finally, we find relationships between stigma and gender, race, income, and education. Women have lower stigmatizing beliefs towards others' participation, but there are no gender differences in self or social stigma. Black and White individuals report similar levels of stigma, and individuals who are neither Black nor White—in our survey 62 percent of these individuals are Asian—report higher stigma. Income is positively associated with all three dimensions of stigma. Education appears to follow an inverted U-shaped pattern: individuals with a high school education or lower report the lowest levels of overall stigma, but individuals with graduate school education also report lower stigma than those with some college or a bachelors degree.

4.3 Individuals Overestimate Stigma Associated with SNAP

Our survey shows that individuals who have used SNAP expect to be observed and judged negatively at the grocery store. But if individuals overestimate the extent to which others hold stigmatizing attitudes about SNAP participants, they may overestimate stigma costs associated with participation and choose not to participate. To assess whether individuals accurately assess stigmatizing attitudes in society, we elicit second-order beliefs in the survey.

Figure 5 shows the distribution of first- and second-order beliefs across the whole sample for the question about judgement at the grocery store. Individuals substantially overestimate the average level of stigma in society. On average, individuals said that they would judge 16 people out of 100 negatively in response to the first-order question. The average response to the second-order elicitation was 38.6. The corresponding first- and second-order median responses were 2 and 35. These results suggest that individuals believe the average level of stigmatization in society is equivalent to that held by the individual at the 82nd percentile of the first-order distribution.

We find similar patterns when we elicit individuals' first- and second-order responses to questions about SNAP participants' motivation to work. When we asked individuals how many people on SNAP they believed were less motivated to work due to their SNAP participation, the average first-order response was 25.6; the average second-order estimate was 46.2. As with the grocery store question, this second-order estimate corresponded to the 82nd percentile of first-order responses.

Table 4 shows that current and past SNAP participants overestimate others' stigma more than never-participants. For example, current participants believe the average survey respondent would report judging 41.4 out of 100 individuals that they notice using SNAP in the grocery store negatively; in reality, only 16 percent of survey respondents gave an answer

that was larger than this. The findings for the work motivation question are similar. This finding is especially striking given that current and past SNAP participants report lower levels of first-order stigma.

5 Experimental Findings

5.1 Null Effects Mask Variation by Political Affiliation and SNAP Participation

Our three primary interventions do not cause changes in our pre-specified stigma indices that are detectable at the 5 percent significance level; Table 5 shows null effects for each treatment across all pre-specified stigma indices. These null effects suggest that the treatments we tested are not powerful enough to shift stigma at the population level. However, the point estimates on the overall, self, and social stigma indices are all negative. The consistency of the negative signs across the interventions and indices suggests that a stronger intervention may be able to cause a statistically detectable change in stigma-related beliefs.

These null effects mask significant heterogeneity in the responses. First, our interventions move the reported stigma of Republicans and Democrats in different directions. Figure 6 shows that both the "Information" and "Work" interventions significantly reduce overall stigma for Democrats, whereas there is positive but insignificant increase among Independents and Republicans. Table 6 shows that these same general patterns hold across the self and social stigma indices, although the "Information" intervention significantly increases self stigma for Republicans and Independents.

Our interventions also move the reported stigma of current SNAP participants and respondents who are not currently participating in SNAP in different directions. Table 7 shows that the "Information" intervention significantly decreases overall stigma among individuals who are not currently participating in SNAP, whereas it increases overall stigma - though not significantly - among current participants. Similarly, the "Work" intervention significantly increases overall stigma for current participants, and has a negative but non-significant decrease for non-participants. Both these effects are driven primarily by the effect on social stigma: for example, the "Work" intervention increases social stigma index by almost half a standard deviation among current participants, and decreases social stigma by a tenth of a standard deviation among former and past participants. Self stigma and stigmatizing beliefs also increase for current participants and decrease for former and non-participants, but these effects vary in their degree of statistical significance. Stigma also moves in the opposite directions for current and non-SNAP participants following the "Kids" treatment,

though with smaller magnitudes.

The increase in stigma for SNAP participants may reflect the fact that the vignettes describe individuals who state they hope not to use SNAP in the future. Current SNAP participants may find this narrative dis-empowering or it may create cognitive dissonance. The "Information" treatment discusses individuals who are more needy than themselves; again this narrative may make current participants feel needy themselves, thereby increasing reported stigma.

Our findings suggest that the effect of interventions designed to move stigma may be contingent on the characteristics of the individual who experiences the intervention. Stigma appears to move in opposite directions for individuals with different party affiliations and SNAP participation statuses. If this is true across many interventions designed to move stigma—not just those we tested here—then outreach campaigns with uniform messaging may differ in effectiveness across social groups. Null effects on average may result from moving different populations in different directions. This may provide an explanation for null or negative effects of stigma interventions in prior studies (Finkelstein and Notowidigdo, 2019; Bhargava and Manoli, 2015). Targeting different messaging to different populations may be a more promising route for moving stigma and increasing take up of the social safety net.

5.2 The "Information" Intervention Increased Interest in SNAP but Decreased Support for SNAP Spending

We also tested the effect of our interventions on outcomes related to take-up: we first gave participants the opportunity to click on a link to a SNAP eligibility screener and then measured respondents' completion of the screener. We looked at this outcome only for former or non-participants, for whom completing the screener could result in new participation in SNAP. We did not find any effect of our intervention on click-through rates, but Figure 7 shows that individuals who received the "Information" treatment were 4.5 percentage points (66 percent) more likely to complete the screener. Importantly, Appendix Figure A.4 shows that the additional respondents who completed the screener were also found to be likely eligible for SNAP. This result provides evidence that the "Information" intervention—which also significantly decreased the portion of individuals who stated they would be concerned that they would take the place of someone else if they were to take-up SNAP (see Appendix Figure A.5)— may have increased eligible respondents' motivation to participate in SNAP.

In wave two of our experiment, we examined the impact of our interventions on support for additional government spending on SNAP. Table 8 shows that all interventions had a negative

effect on support for government spending. For the "Kids" and "Work" interventions these effects were small and not statistically significant, but the "Information" treatment had a large and statistically significant effect. This negative effect was almost entirely driven by Republicans, for whom all the interventions significantly decreased support for SNAP spending.

Taken together, these findings suggests that the "Information" treatment may increase eligible non-participants' willingness to participate in SNAP by alleviating concerns about taking the place of others who are more needy or deserving. But this is offset by a decrease in political support for SNAP spending that is largely driven by Republicans and Independents. These two findings may explain why advocates do not use similar messages for public-facing campaigns to increase uptake in SNAP: the political cost may be too large. Nonetheless, alleviating this concern may be an effective persuasion strategy at the individual level.

6 Conclusion

Our survey yields several insights that can inform future efforts to design and test interventions to reduce stigma in the context of SNAP. The descriptive findings point to promising areas for future testing. Our finding that grocery stores are sites where current participants experience stigma suggests that efforts to the reduce the visibility of EBT cards and simplify grocery transactions may reduce stigma. Policy changes like online shopping and increasing self-checkout lanes are already being considered in efforts to modernize and make WIC participation more user-friendly.[11] Moreover, emphasizing the option to shop online may be effective in reducing stigma concerns at the point of application. We also find that individuals who have never participated in SNAP and those who have few close friends or family who use SNAP have higher levels of stigma. This suggests organizations could consider utilizing existing social networks to encourage participation and reduce stigma. Among non-enrolled eligible individuals, learning that others participate may encourage participation. For current enrollees, exposure to other SNAP participants may reduce stigma. Finally, we find that on average, individuals overestimate levels of stigma that exist in the population. Correcting these beliefs could therefore reduce stigma and increase take-up. These findings are correlational; testing hypotheses causally is an important avenue for future work.

Our experimental results also provide evidence that strategies to reduce stigma may require nuanced design that accounts for heterogeneous effects. Across all three of the interventions we test, null average effects mask significant heterogeneity—including opposite-signed responses—by SNAP participation status and political affiliation. Outreach mes-

[11] https://www.fns.usda.gov/wic/modernization/improving-shopping-experience

saging that is tailored to individuals' political affiliation may therefore be an effective way to reduce stigma and increase take-up. Our interventions are effective in reducing stigma for Democrats; finding messaging that is effective at reducing stigma for Republicans is an important next task.

Finally, we find that our "Information" treatment, which informed participants that there was no federal cap on SNAP spending, reduced individuals' belief that they would take benefits away from others and increased respondents' completion of a third-party SNAP screener. While this is promising as a potential intervention to increase take-up, the intervention also decreased support for SNAP spending, a result driven by Republicans. This suggests the intervention may be better suited to one-on-one outreach, rather than a broader public campaign.

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7 Figures

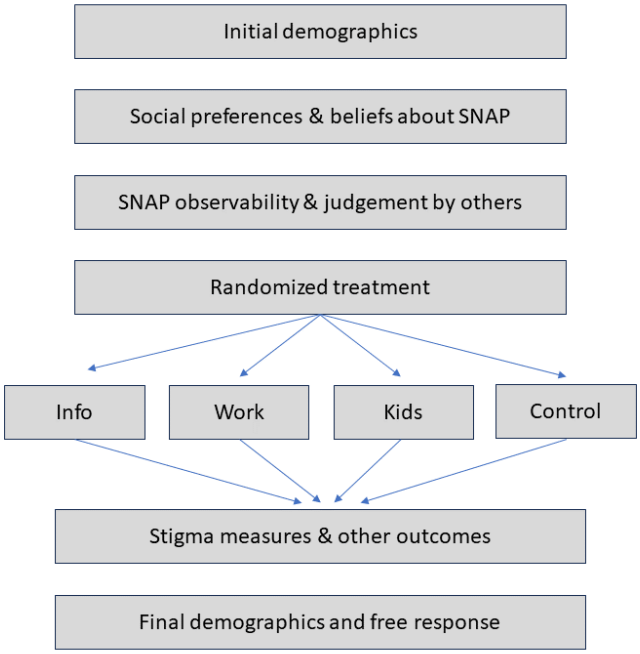
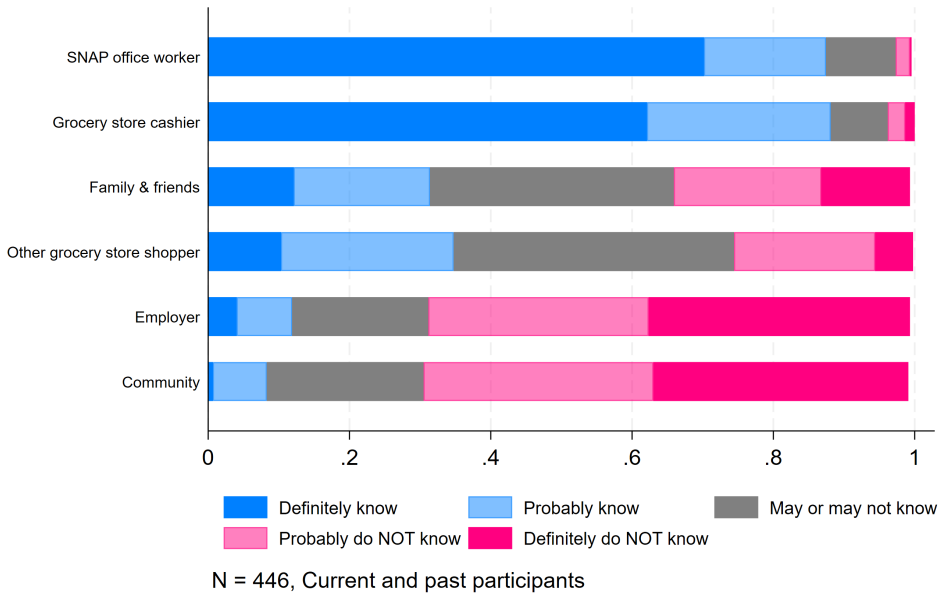
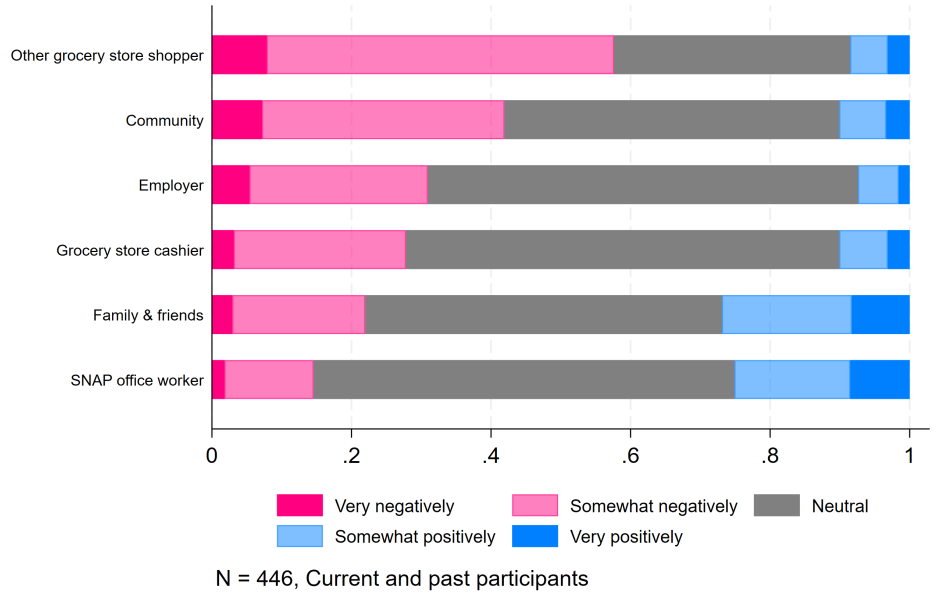


Figure 1: Survey flow

Notes: Figure illustrates the order of survey segments for most respondents. In wave 2, some respondents were randomly selected to be asked demographic questions at the beginning rather than the end of the survey. The remaining respondents answered these questions at the end of the survey. See text for additional details.



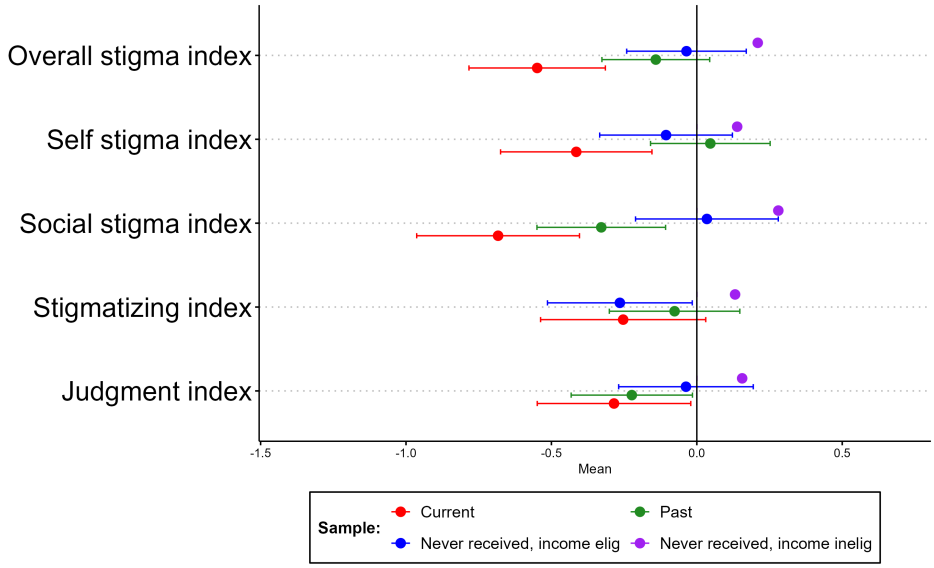
(a) Perceived knowledge



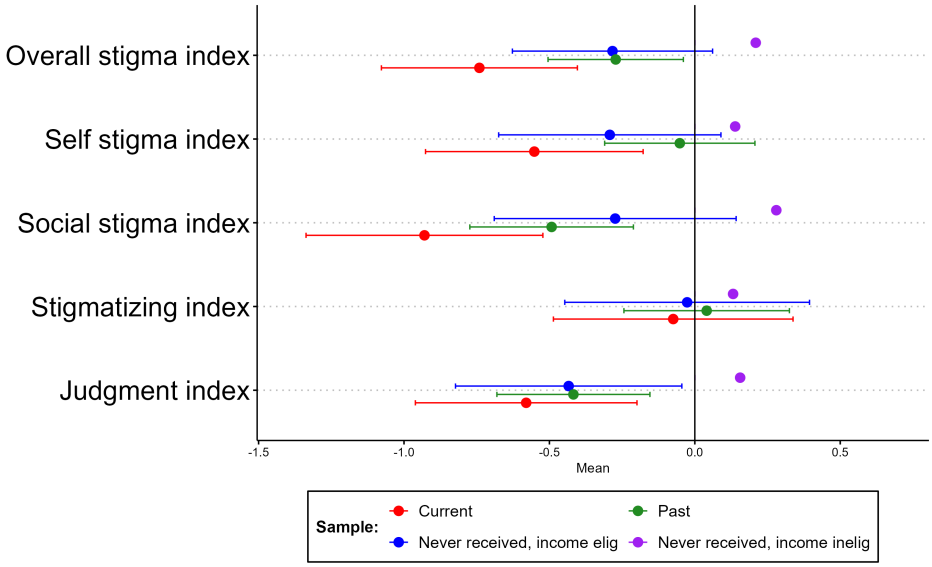
(b) Perceived judgment

Figure 2: Perceived visibility and judgment of SNAP status to six social groups

Notes: Graphs show the share of respondents answering in each of the indicated categories for each of the six social groups. The sample of respondents is limited to those who have participated in SNAP, either currently or in the past who pass the pre-registered inclusion criteria.



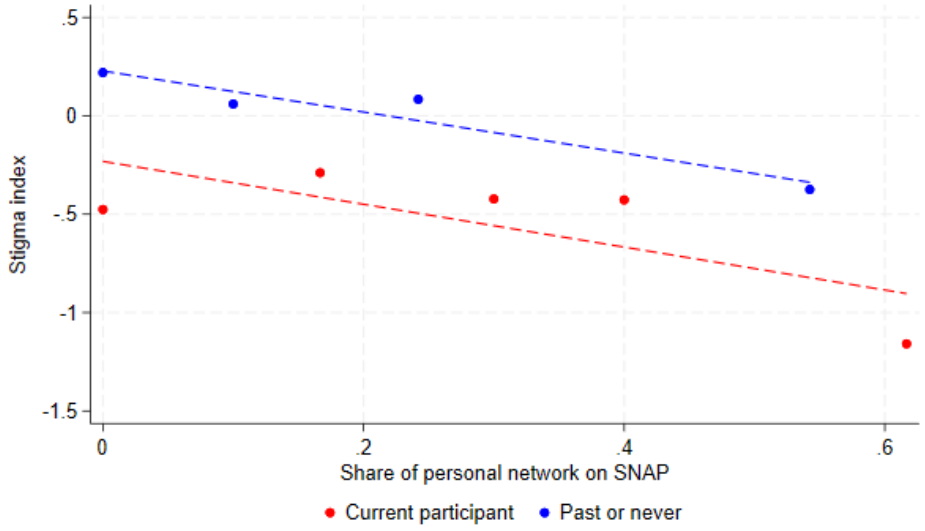
(a) No controls



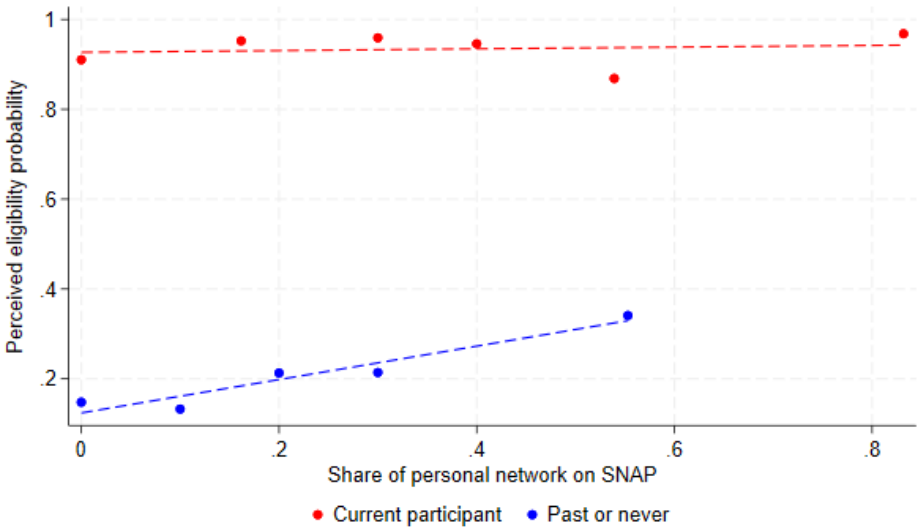
(b) Controlling for income ventiles

Figure 3: Association between SNAP status and stigma indices

Notes: Estimates are reported for the control group only and measured in standard deviation units relative to the mean for never received, income ineligible participants. The mean for the control group across all participation statuses is bench-marked at 0.



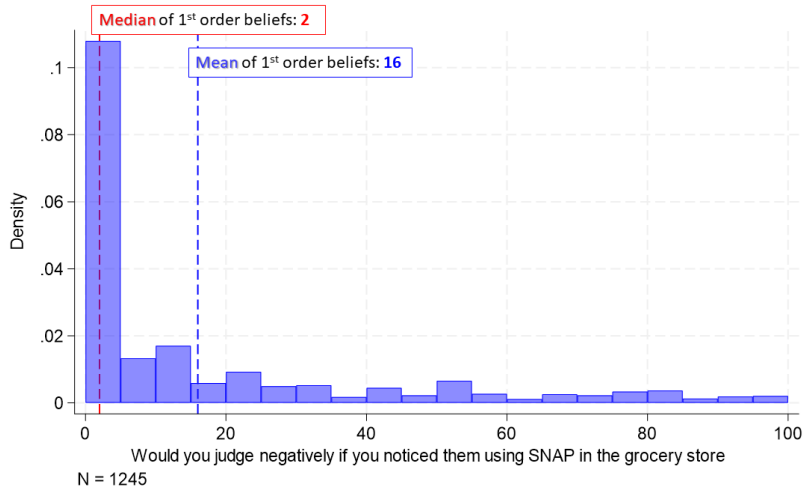
(a) Personal networks and stigma



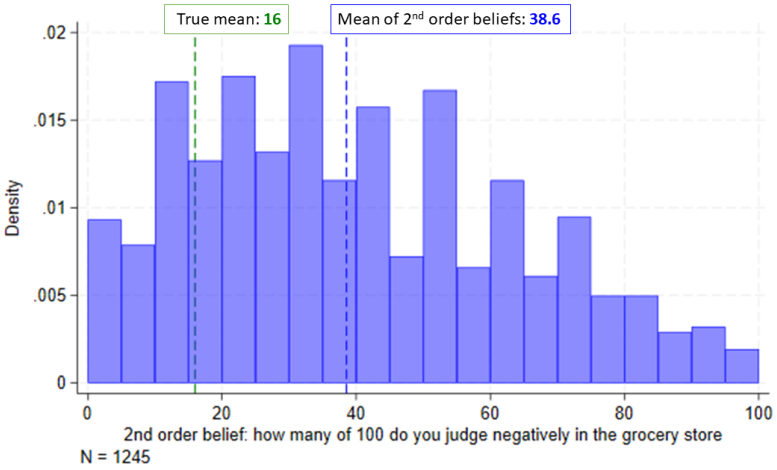
(b) Personal networks and perceived eligibility probability

Figure 4: Network effects

Notes: Graphs show binned means of the outcome by the respondent's reported share of close family and friends who have ever participated in SNAP. In Panel A, the outcome is the overall stigma index and the sample is the control group only. In Panel B, the outcome is the respondent's perceived likelihood of being eligible for SNAP. The sample includes respondents who pass the pre-registered inclusion criteria.



(a) Distribution of first order beliefs



(b) Distribution of second order beliefs

Figure 5: Most individuals overestimate judgment by others at the grocery store

Notes: Figures show the distribution of respondent's first and second order beliefs with respect to the question: "Out of 100 individuals receiving SNAP, how many would you judge negatively if you noticed them using SNAP in the grocery store?" First order attitudes are respondents' direct response to this question. Second order beliefs are respondent's incentivized guess of the average response in the survey. The sample includes respondents who pass the pre-registered inclusion criteria.

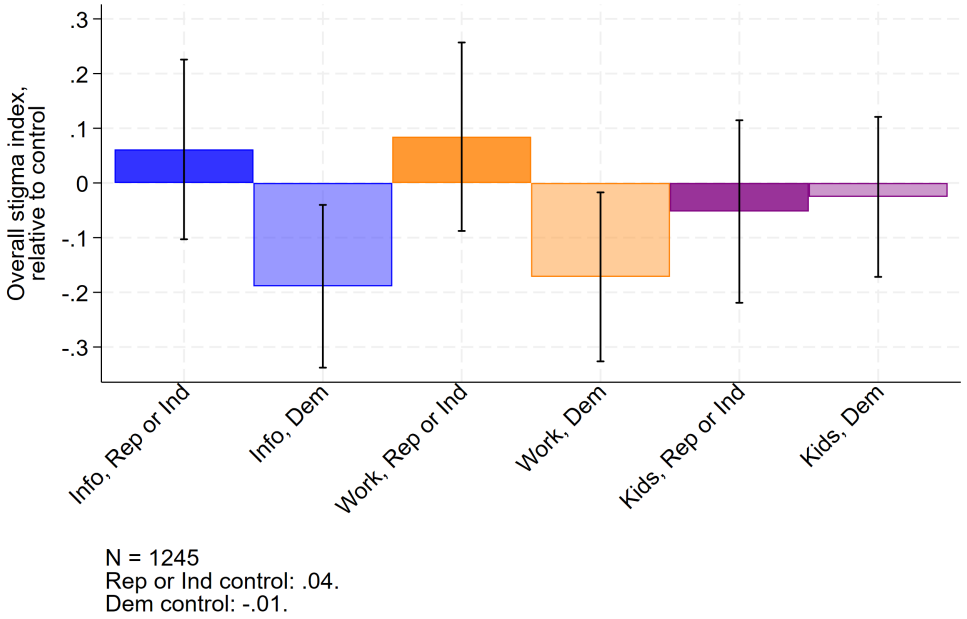


Figure 6: Effects of interventions on stigma by political affiliation

Notes: Estimates of treatment effects on stigma measures by party affiliation. The sample includes respondents who pass the pre-registered inclusion criteria. Regressions include no additional controls.

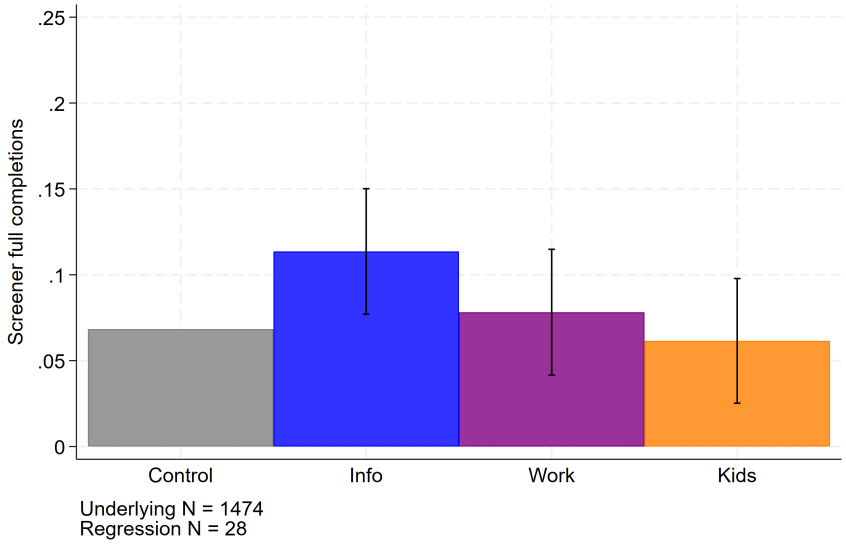


Figure 7: Effect of interventions on eligibility screener completions

Notes: Estimates of interventions on completion of third-party eligility screener. Sample includes only individuals not currently participating in SNAP. The underlying data are counts at the level we can track eligibility screener completions, which is roughly at the (1) wave by (2) treatment group by (3) participation status level (e.g. wave 1 never participants shown the kids female intervention). There are 28 of these "cells". The total number of respondents underlying these counts is 1,474, which includes all respondents in the past and never SNAP groups without sample restrictions. The outcome, defined at the cell level, is the count of respondents who complete the eligibility screener divided by the count of all respondents in the cell. The regression is weighted by the cell size.

8 Tables

Variable	U.S.	Full	Pre-analysis
Household size	2.32	2.7	2.5
Age	38.9*	46.1	46.0
Female	0.50	0.50	0.51
SNAP participation			
Current	0.12	0.14	0.13
Past	–	0.23	0.22
Never	–	0.63	0.64
Income			
Income (midpoint)	69,021*	68,417	66,329
% Federal Poverty Level (FPL)	292.22	301.14	296.30
Below 130% FPL	–	0.22	0.22
Below 200% FPL	–	0.39	0.39
Race/ethnicity			
White, Non-Hispanic	0.59	0.74	0.77
Black, Non-Hispanic	0.14	0.13	0.11
Other, Non-Hispanic	0.08	0.07	0.07
Hispanic, any race	0.19	0.06	0.05
Political affiliation			
Democrat	0.42	0.54	0.55
Independent	0.25	0.24	0.24
Republican	0.33	0.22	0.21
Education			
No High School Diploma	0.09	0.01	0.01
High School Diploma or GED	0.28	0.13	0.14
Some College, No Degree	0.15	0.22	0.22
Associate's Degree	0.10	0.09	0.09
Bachelor's Degree	0.23	0.39	0.40
Graduate or professional degree	0.14	0.15	0.15
Work status			
Not working - disabled	0.09	0.06	0.06
Not working - looking for work	0.02	0.09	0.09
Not working - other	–	0.07	0.08
Not working - retired	0.18	0.21	0.21
Working full-time	0.50	0.43	0.41
Working part-time	0.10	0.12	0.13
N	–	1,708	1,245

Table 1: Summary statistics

Notes: Survey data includes both waves. "Full" sample is the full set of survey respondents. "Pre-analysis" is the remaining sample after exclusions, specified in the pre-analysis plan. Data used to calculate U.S. population level statistics include: U.S. Census, Bureau of Labor Statistics, U.S. Social Security Administration, and the General Social Survey. See Appendix **??** for U.S. data source details. * indicates median.

	Overall	Self	Social	Stigmatizing	Overall	Self	Social	Stigmatizing
Never SNAP or Unknown	0.409***	0.370***	0.908***	0.281*	0.198+	0.222*	0.768***	0.009
	(0.101)	(0.083)	(0.159)	(0.133)	(0.111)	(0.091)	(0.171)	(0.143)
Previous SNAP	0.278*	0.293**	0.418*	0.225	0.186+	0.256**	0.358+	0.067
	(0.109)	(0.089)	(0.186)	(0.149)	(0.110)	(0.089)	(0.186)	(0.143)
Independent					0.142+	0.079	-0.093	0.333**
					(0.075)	(0.061)	(0.104)	(0.114)
Republican					0.298***	0.283***	0.015	0.490***
					(0.078)	(0.070)	(0.130)	(0.106)
Income					0.003*	0.003*	0.003	0.004+
					(0.001)	(0.001)	(0.002)	(0.002)
Woman					-0.110+	-0.037	0.033	-0.243**
					(0.059)	(0.049)	(0.092)	(0.086)
Age					0.002	0.005**	0.001	0.001
					(0.002)	(0.002)	(0.003)	(0.003)
Graduate School					-0.079	-0.151*	0.095	-0.070
					(0.106)	(0.074)	(0.159)	(0.168)
High School or Less					-0.244**	-0.044	-0.386*	-0.323**
					(0.093)	(0.086)	(0.167)	(0.114)
Some College					-0.053	0.045	-0.059	-0.150
					(0.072)	(0.059)	(0.104)	(0.108)
Black					-0.012	-0.010	-0.200	0.103
					(0.085)	(0.080)	(0.140)	(0.115)
Other Non-White					0.220+	0.120	0.143	0.391*
					(0.117)	(0.082)	(0.169)	(0.198)
Hispanic					-0.155	-0.007	-0.124	-0.339
					(0.162)	(0.089)	(0.230)	(0.322)
Num. Close Acq. on SNAP					-0.051**	-0.057***	-0.020	-0.048*
					(0.018)	(0.016)	(0.028)	(0.024)
Num.Obs.	298	298	298	298	295	295	295	295
Controls	N	N	N	N	Y	Y	Y	Y

Table 2: Heterogeneity in Stigma Levels: Regression of Stigma Indices on Demographic Characteristics

Notes: See text for definition of indices. The sample includes respondents who pass the pre-registered inclusion criteria and are assigned to the control group. Regression also includes controls for survey wave.

	Overall stigma index		Social stigma index		Self stigma index	
	(1)	(2)	(3)	(4)	(5)	(6)
Personal network share	-0.522*	-0.869*	-0.236	-0.737	-0.809***	-1.000**
	(0.274)	(0.462)	(0.311)	(0.570)	(0.299)	(0.471)
Personal network share X Past SNAP		0.708		0.936		0.480
		(0.601)		(0.735)		(0.626)
Personal network share X Current SNAP		0.048		0.404		-0.309
		(0.772)		(0.978)		(0.770)
Local network share	0.184	-0.703	-1.607	-2.238	1.975	0.831
	(2.663)	(2.904)	(3.080)	(3.415)	(2.733)	(3.065)
Local network share X Past SNAP		-0.745		-0.866		-0.623
		(2.184)		(2.708)		(2.180)
Local network share X Current SNAP		2.212		0.844		3.580
		(2.916)		(3.316)		(3.077)
Past SNAP	-0.048	-0.088	-0.300*	-0.373	0.204	0.197
	(0.140)	(0.332)	(0.171)	(0.410)	(0.144)	(0.343)
Current SNAP	-0.546***	-0.790*	-0.660***	-0.799	-0.432**	-0.781*
	(0.190)	(0.427)	(0.233)	(0.497)	(0.194)	(0.421)
R-squared	0.494	0.502	0.505	0.511	0.492	0.500
N	275	275	275	275	275	275
Experimental controls	N	N	N	N	N	N

Table 3: Mechanisms of network effects: stigma reduction

Notes: See text for definition of indices. Regressions of stigma on personal and local network shares. Personal network is the share of the respondents' 10 closest family or friends who use SNAP; this ranges from 0 to 1 with a mean of 0.17. Local network is the fraction of individuals in a county who are enrolled in SNAP; this ranges from 0 to 0.35, with a mean of 0.13. The sample includes respondents who pass the pre-registered inclusion criteria and are assigned to the control group. All regressions include demographic controls, county-level controls, and state fixed effects.

Grocery store			
	2nd - 1st order	**2nd order**	**1st order**
Current SNAP	11.5***	3.7*	-7.8***
	(2.4)	(2.1)	(1.8)
Past SNAP	5.4***	1.2	-4.1**
	(1.9)	(1.7)	(1.6)
Control mean: Never SNAP	19.9	37.8	17.9
R-squared	0.024	0.004	0.015
N	1245	1245	1245

Work			
	2nd - 1st order	**2nd order**	**1st order**
Current SNAP	9.2***	3.9**	-5.4***
	(2.1)	(1.8)	(2.0)
Past SNAP	7.5***	3.3**	-4.2***
	(1.6)	(1.5)	(1.6)
Control mean: Never SNAP	18.1	44.9	26.8
R-squared	0.031	0.009	0.014
N	1245	1245	1245

Table 4: First and second order beliefs

Notes: Regression of first- and second-order beliefs on SNAP participation status. The "Grocery Store" panel reports first- and second-order responses to the question "Out of 100 individuals receiving SNAP, how many would you judge negatively if you noticed them using SNAP in the grocery store?". The "Work" panel reports first- and second-order responses to the question "Out of 100 individuals receiving SNAP, how many do you think are less motivated to work because they receive SNAP?". In both cases the second-order response is participants' estimates of the average response across all respondents in the survey. The sample includes respondents who pass the pre-registered inclusion criteria.

	Overall	Self	Social	Stigmatizing	Overall	Self	Social	Stigmatizing
Kids	−0.023	−0.069	−0.014	0.011	−0.012	−0.044	−0.002	0.264
	(0.053)	(0.058)	(0.102)	(0.067)	(0.051)	(0.066)	(0.084)	(1.570)
Work	−0.027	−0.041	−0.111	−0.004	0.000	−0.014	−0.011	0.272
	(0.056)	(0.061)	(0.107)	(0.070)	(0.052)	(0.068)	(0.087)	(1.621)
Info	−0.045	−0.013	−0.170+	−0.052	−0.036	−0.003	−0.094	−0.944
	(0.053)	(0.058)	(0.102)	(0.067)	(0.050)	(0.065)	(0.084)	(1.556)
Num.Obs.	1267	1267	1267	1267	1267	1267	1267	1267
Controls	N	N	N	N	Y	Y	Y	Y

Table 5: Experimental Results - Primary Interventions

Notes: Estimates of treatment effects on stigma measures. All regressions include the strata: survey wave and SNAP participation status. Additional controls are gender, age, race, ethnicity, political affiliation, education, and household income. The sample includes respondents who pass the pre-registered inclusion criteria.

	Overall	Self	Social	Stigmatizing	Overall	Self	Social	Stigmatizing
Democrats								
Kids	-0.025	-0.064	0.013	0.031	-0.010	-0.050	0.030	0.030
	(0.071)	(0.078)	(0.086)	(0.075)	(0.073)	(0.079)	(0.088)	(0.073)
Work	-0.172**	-0.216**	-0.127	-0.029	-0.160**	-0.213**	-0.106	-0.014
	(0.080)	(0.086)	(0.093)	(0.079)	(0.080)	(0.088)	(0.094)	(0.076)
Info	-0.189***	-0.217***	-0.161*	-0.056	-0.186**	-0.200**	-0.172**	-0.092
	(0.070)	(0.080)	(0.082)	(0.078)	(0.072)	(0.082)	(0.085)	(0.077)
Control mean	-0.009	-0.032	0.014	-0.196	-0.010	-0.036	0.017	-0.193
Num.Obs.	687	687	687	687	681	681	681	681
Controls	N	N	N	N	Y	Y	Y	Y
Republicans & Independents								
Kids	-0.052	-0.065	-0.040	0.019	-0.064	-0.074	-0.054	-0.012
	(0.085)	(0.093)	(0.098)	(0.107)	(0.084)	(0.090)	(0.100)	(0.101)
Work	0.085	0.130	0.039	0.047	0.079	0.122	0.037	0.060
	(0.084)	(0.096)	(0.095)	(0.104)	(0.085)	(0.094)	(0.097)	(0.101)
Info	0.061	0.179**	-0.056	-0.056	0.062	0.179**	-0.056	-0.022
	(0.082)	(0.090)	(0.095)	(0.099)	(0.083)	(0.088)	(0.097)	(0.095)
Control mean	0.037	0.081	-0.008	0.191	0.032	0.075	-0.011	0.187
Num.Obs.	558	558	558	558	556	556	556	556
Controls	N	N	N	N	Y	Y	Y	Y

Table 6: Experimental Results - by Political Affiliation

Notes: Estimates of treatment effects on stigma measures by political affiliation. All regressions include the strata: survey wave and SNAP participation status. Additional controls are gender, age, race, ethnicity, political affiliation, education, and household income. The sample includes respondents who pass the pre-registered inclusion criteria. "Democrats" are those who select "Strong Democrat", "Moderate Democrat", or "Lean Democrat". "Republicans and Independents" are those who select "Strong Republican", "Moderate Republican", "Lean Republican", or "Independent".

	Overall	Self	Social	Stigmatizing	Overall	Self	Social	Stigmatizing
Current Participant								
Kids	0.016	-0.091	0.124	0.102	0.109	0.003	0.215	0.124
	(0.170)	(0.174)	(0.213)	(0.169)	(0.186)	(0.194)	(0.224)	(0.154)
Work	0.238	0.129	0.346	0.076	0.315*	0.175	0.454**	0.125
	(0.169)	(0.188)	(0.210)	(0.171)	(0.170)	(0.193)	(0.196)	(0.134)
Info	0.126	0.081	0.171	-0.041	0.234	0.151	0.317	0.065
	(0.182)	(0.193)	(0.219)	(0.158)	(0.188)	(0.204)	(0.219)	(0.148)
Control mean	-0.549	-0.415	-0.683	-0.253	-0.549	-0.415	-0.683	-0.253
Num.Obs.	167	167	167	167	166	166	166	166
Controls	N	N	N	N	Y	Y	Y	Y
Past or Never Participated								
Kids	-0.045	-0.068	-0.023	-0.016	-0.032	-0.047	-0.017	0.002
	(0.057)	(0.064)	(0.067)	(0.070)	(0.058)	(0.064)	(0.069)	(0.067)
Work	-0.108*	-0.102	-0.114	-0.020	-0.099	-0.090	-0.109	0.018
	(0.062)	(0.070)	(0.071)	(0.073)	(0.062)	(0.068)	(0.071)	(0.068)
Info	-0.101*	-0.053	-0.148**	-0.058	-0.104*	-0.049	-0.159**	-0.057
	(0.056)	(0.065)	(0.064)	(0.069)	(0.056)	(0.062)	(0.066)	(0.066)
Control mean	0.084	0.076	0.092	0.013	0.082	0.071	0.093	0.013
Num.Obs.	1078	1078	1078	1078	1071	1071	1071	1071
Controls	N	N	N	N	Y	Y	Y	Y

Table 7: Experimental Results - by SNAP Participation Status

Notes: Estimates of treatment effects on stigma measures by SNAP participation status. All regressions include the strata: survey wave and SNAP participation status. Additional controls are gender, age, race, ethnicity, political affiliation, education, and household income. The sample includes respondents who pass the pre-registered inclusion criteria.

	Full sample		Democrats		Non-Democrats	
Any intervention	-0.125		0.083		-0.336***	
	(0.088)		(0.132)		(0.120)	
Kids		-0.095		0.076		-0.301**
		(0.098)		(0.143)		(0.136)
Work		-0.061		0.164		-0.300**
		(0.094)		(0.137)		(0.127)
Info		-0.254***		-0.043		-0.412***
		(0.098)		(0.149)		(0.128)
Control mean	0.583	0.583	0.563	0.563	0.600	0.600
N	368	368	195	195	173	173

Table 8: Effect of interventions on support for additional SNAP spending

Notes: Estimates of intervention effects on support for SNAP spending. Dependent variable = 1 if respondent answers "too little" to the question "*Do you think the government is spending too much money on SNAP, too little, or about the right amount?*" This question was only asked in Wave 2. The sample includes respondents who pass the pre-registered inclusion criteria from Wave 2 only. No additional controls.

A Appendix Figures and Tables

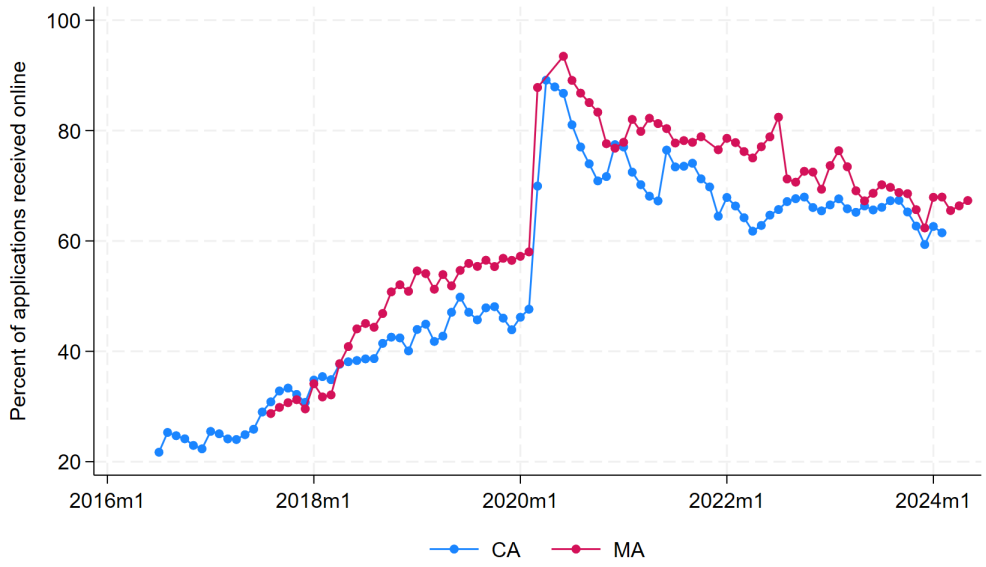


Figure A.1: Online Applications in Massachusetts and California Over Time

Notes: Data from Massachusetts and California publicly-available reporting. The steep increase in early 2020 coincides with the start of the COVID-19 pandemic. Massachusetts publishes data in a "Monthly Performance Scorecard", and California provides data in the "CalFresh Data Dashboard".

Figure A.2: EBT Card Images

Notes: Each survey respondent was shown the image of their state's EBT card and told the state-specific name of the SNAP program when asked if they currently or ever particapted in SNAP. The EBT card images come from USDA's webpage. Some states recently updated their EBT card images, so new images come from state websites.

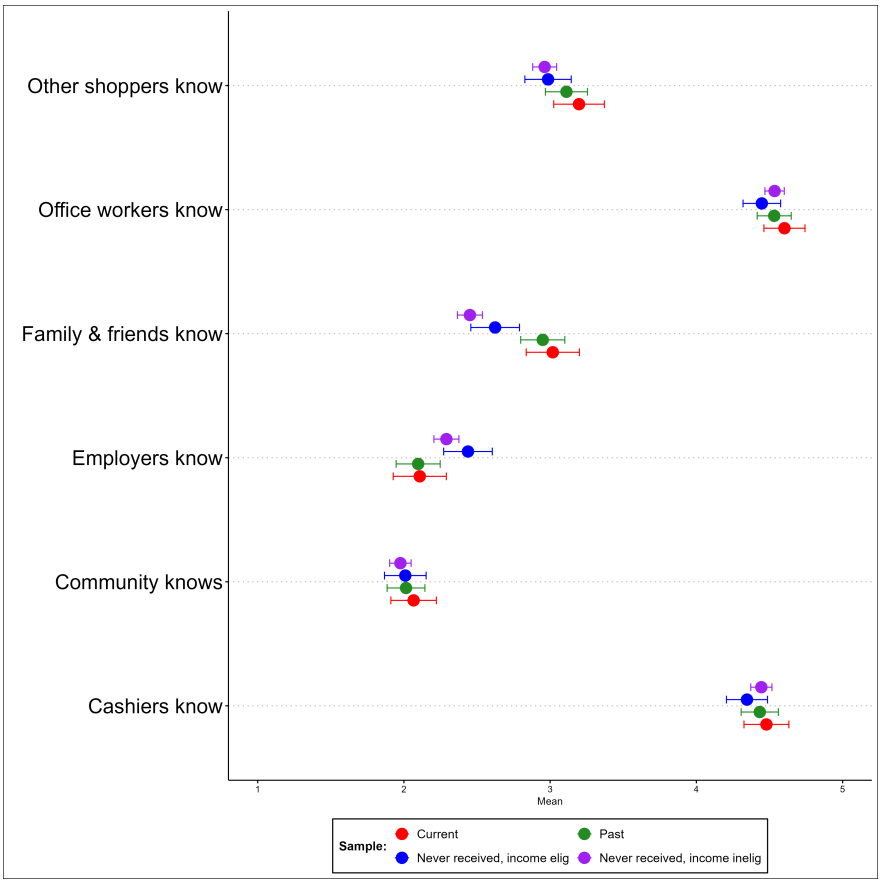


Figure A.3: Responses to Visibility Questions by SNAP Status

Notes: Responses on a Likert scale. 1 = Definitely Do Not Know,...,5 = Definitely Do Know.

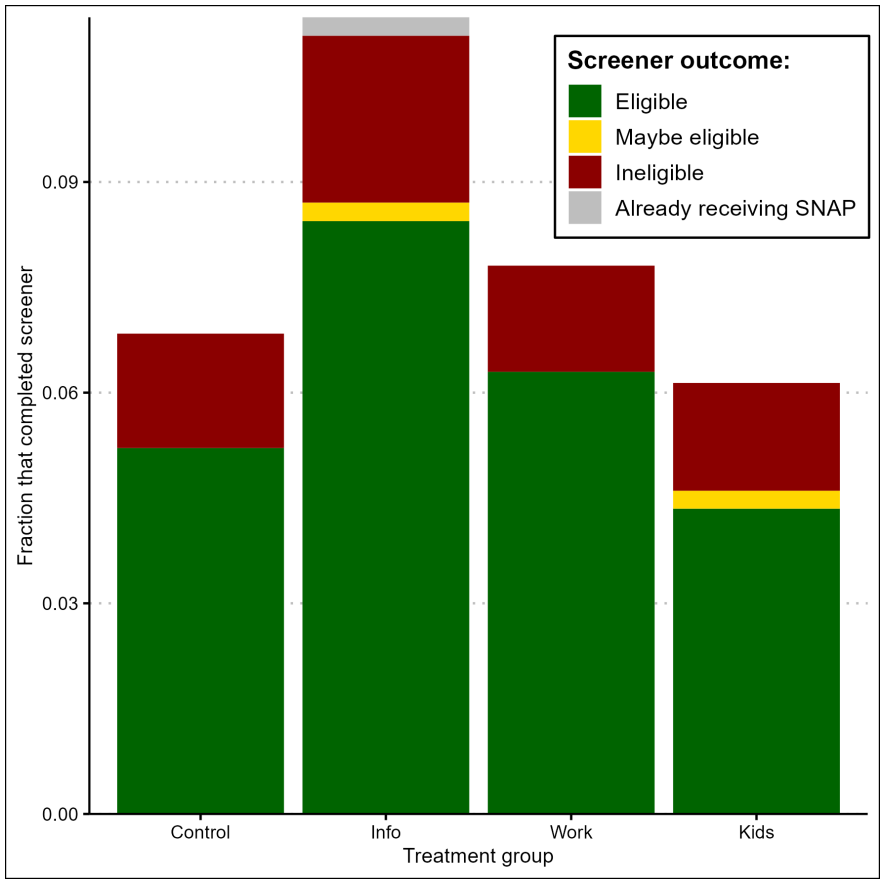
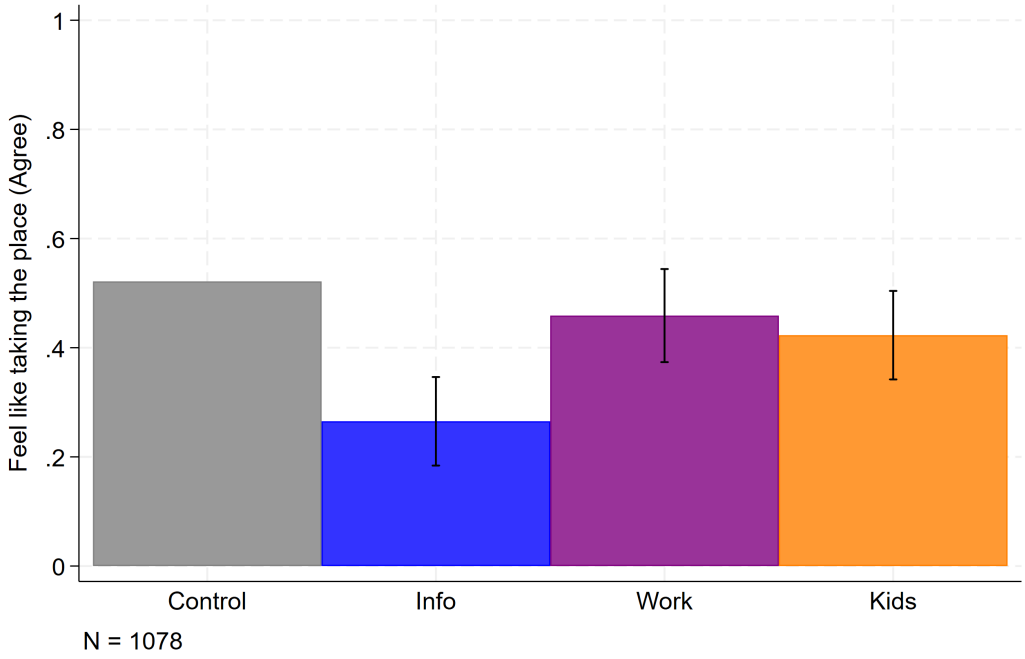
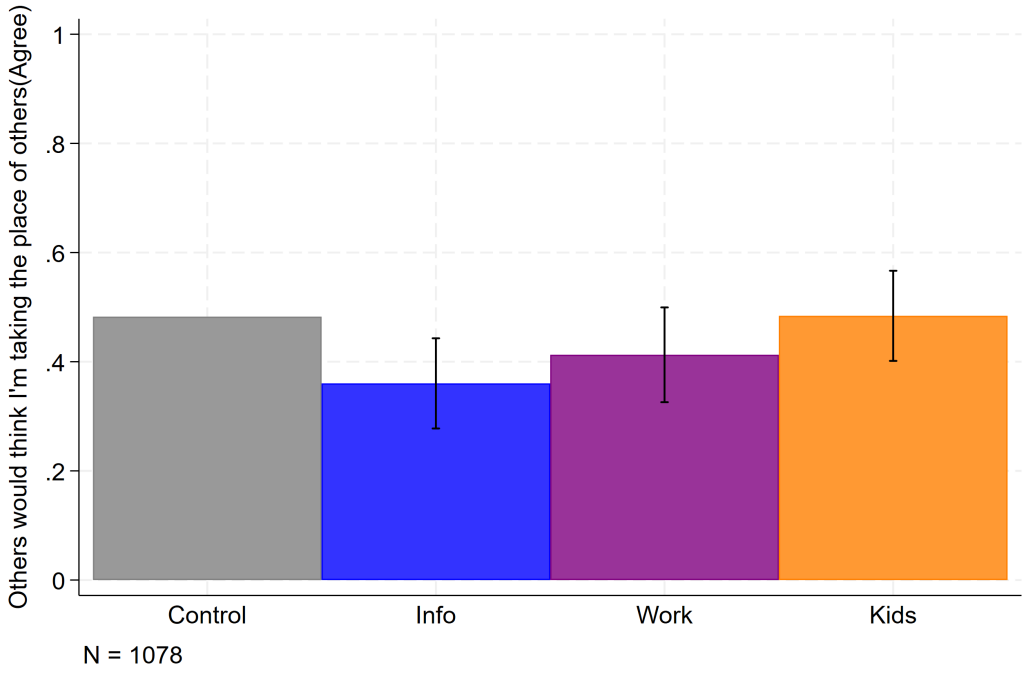


Figure A.4: Completion of the SNAP Screener by Treatment Group

Notes: Sample includes past and never participants only. The underlying data are counts at the level we can track eligibility screener completions, which is roughly at the (1) wave by (2) treatment group by (3) participation status level (e.g. wave 1 never participants shown the kids female intervention). There are 28 of these "cells". The total number of respondents underlying these counts is 1,474, which includes all respondents in the past and never SNAP groups without sample restrictions. The outcome, defined at the cell level, is the count of respondents who complete the eligibility screener and are found either (a) eligible, (b) ineligible, (c) maybe eligible, or (d) indicate they are already receiving SNAP, divided by the count of all respondents in the cell.



(a) Self Stigma Question



(b) Social Stigma Question

Figure A.5: First Stage Effects of "Information" Intervention

Notes: The sample includes respondents who pass the pre-registered inclusion criteria and report never participating in SNAP or participating in SNAP in the past but not currently. The reported outcome is whether the respondent agrees that participating in SNAP would make them feel like they are taking the place of others who need benefits more (Panel (a)) or make others think that they are taking the place of others who need benefits more (Panel (b)).

Household size	**Max benefit, FY 2023**	**Max benefit, FY 2024**
1	$281	$291
2	$516	$535
3	$740	$766
4	$939	$973
5	$1,116	$1,155
6	$1,339	$1,386
7	$1,480	$1,532
8	$1,691	$1,751
Each additional person	$211	$219

Table A.1: Maximum benefit amounts by household size

Notes: 48 states and DC. Fiscal Year 2023 is October 1, 2022 – September 30, 2023. Fiscal Year 2024 is October 1, 2023 – September 30, 2024. The maximum benefit amounts are adjusted for inflation annually in October, so FY 2023 and FY 2024 levels correspond to the benefit levels for Wave 1 and Wave 2, respectively. Data from USDA Webpage.

No.	Question text	Overall	Social	Self	Stigmatizing	2nd order
(1)	"Most people would look down upon me if I applied for SNAP."	x	x			
(2)	"If someone found out I applied for SNAP, they would think I lack work ethic."	x	x			
(3)	"If I enrolled in SNAP, other people would think I was taking the place of someone who needs SNAP benefits more than I do."	x	x			
(4)	"If I enrolled in SNAP, I would feel like I was taking the place of someone who needs SNAP benefits more than I do."	x		x		
(5)	"If I applied for SNAP, I would think less of myself."	x		x		
(6)	"I would rather support myself than use SNAP."	x		x		
(7)	"If I participated in SNAP, I would avoid telling other people about it."	x				
	Out of 100 individuals receiving SNAP, how many ...					
(8)	do you think should avoid telling other people that they receive SNAP?				x	
(9)	would you judge negatively if you noticed them using SNAP in the grocery store?				x	x
(10)	would you look down on because they receive SNAP?				x	
(11)	do you think are less motivated to work because they receive SNAP?				x	x
(12)	would be taking the place of someone who needs SNAP more than they do?				x	

Table A.2: Stigma questions

Notes: Survey respondents were given different prompts depending on their SNAP participation status. Individuals who had never participated in SNAP were asked to imagine they were eligible for SNAP before responding. Individuals who had participated in SNAP in the past were asked to think about how they felt when they were participating. Individuals who were currently participating were asked to give responses given their current participation.

	Judge negatively (very or somewhat)					
	Cashier	Shopper	Caseworker	Employer	Family/friends	Community
Full sample						
Current participant	-0.108***	-0.092**	-0.006	-0.214***	-0.243***	-0.217***
	(0.037)	(0.042)	(0.025)	(0.040)	(0.036)	(0.042)
Past participant	-0.037	-0.090***	0.074***	-0.227***	-0.227***	-0.207***
	(0.032)	(0.034)	(0.025)	(0.033)	(0.031)	(0.034)
Constant	0.342***	0.667***	0.102***	0.531***	0.452***	0.630***
	(0.017)	(0.017)	(0.011)	(0.018)	(0.018)	(0.017)
Num.Obs.	1245	1244	1244	1244	1244	1244
White, non-Hispanic						
Current participant	-0.131***	-0.069	-0.013	-0.183***	-0.240***	-0.194***
	(0.044)	(0.048)	(0.028)	(0.048)	(0.044)	(0.050)
Past participant	-0.043	-0.067*	0.090***	-0.224***	-0.218***	-0.185***
	(0.039)	(0.039)	(0.030)	(0.039)	(0.037)	(0.040)
Constant	0.368***	0.696***	0.098***	0.539***	0.477***	0.652***
	(0.019)	(0.018)	(0.012)	(0.020)	(0.020)	(0.019)
Num.Obs.	951	950	950	950	950	950
Non-White or Hispanic						
Current participant	-0.002	-0.112	0.013	-0.277***	-0.210***	-0.237***
	(0.070)	(0.082)	(0.054)	(0.073)	(0.064)	(0.078)
Past participant	0.028	-0.106	0.036	-0.235***	-0.220***	-0.241***
	(0.059)	(0.068)	(0.047)	(0.064)	(0.054)	(0.065)
Constant	0.231***	0.550***	0.112***	0.506***	0.356***	0.550***
	(0.034)	(0.040)	(0.025)	(0.040)	(0.038)	(0.040)
Num.Obs.	289	289	289	289	289	289

Table A.3: Perceived Judgment for SNAP Use by Six Social Groups

Notes: Table reports regressions of an indicator for whether the respondent expects members of each social group to judge them very or somewhat negatively on dummy variables indicating SNAP participation status.

	Perceived eligibility prob.		Expected benefits ($)		Clicked screener	
	(1)	(2)	(3)	(4)	(5)	(6)
Personal network share	0.133***	0.237***	48.9**	63.0**	0.069	0.170**
	(0.044)	(0.071)	(19.4)	(28.2)	(0.044)	(0.085)
Personal network share X Past SNAP		-0.086		-30.7		-0.130
		(0.103)	(0.0)	(35.7)		(0.119)
Personal network share X Current SNAP		-0.280***		-12.6		-0.201**
		(0.092)	(0.0)	(75.0)		(0.096)
Local network share	0.445	0.582	127.1	161.7	-0.772*	-0.653
	(0.369)	(0.379)	(146.7)	(152.7)	(0.427)	(0.485)
Local network share X Past SNAP		-0.266		-94.0		-0.103
		(0.347)	(0.0)	(135.6)		(0.323)
Local network share X Current SNAP		-0.056		54.2		-0.235
		(0.316)	(0.0)	(159.0)		(0.332)
Past SNAP	0.060***	0.100*	4.1	23.1	-0.031	0.000
	(0.022)	(0.052)	(8.0)	(18.0)	(0.023)	(0.051)
Current SNAP	0.586***	0.658***	122.5***	115.6***	-0.101***	-0.027
	(0.026)	(0.054)	(13.3)	(29.0)	(0.025)	(0.053)
R-squared	0.671	0.674	0.395	0.396	0.122	0.126
N	1159	1159	1159	1159	1159	1159
Experimental controls	N	N	N	N	Y	Y

Table A.4: Mechanisms of network effects: perceived eligibility

Notes: Perceived eligibility probability is the respondent's answer to the question of how likely they think they are eligible for SNAP. Expected benefit amount is the perceived eligibility probability times the respondent's perceived maximum SNAP benefit amount, divided by the respondent's household size. Clicked screener is a dummy for whether the respondent clicked the link for the eligibility screener. Regressions of these measures on personal and local network shares. Personal network is the share of the respondents' 10 closest family or friends who use SNAP. Local network is the fraction of individuals in a county who are enrolled in SNAP. The sample includes respondents who pass the pre-registered inclusion criteria across all experimental groups. All regressions include demographic controls, county-level controls, and state fixed effects.

B Qualitative Evidence About In-Store SNAP Purchases, Other Experiences of Stigma

Qualitative evidence from our interviews and open-text responses to our survey suggests stigma affects SNAP participants' shopping behavior when purchasing in-store.

Cashiers annoucing a customer's SNAP status; EBT card looks different; EBT payment takes longer:

"I don't particularly like [the EBT card] because it's different from a credit card, you have to use a different machine and the card...it just looks different. So when you're in the line and there's customers behind you and you're dealing with the cashier, you know, like everyone, the whole world's announced that, 'Hey, this guy's on benefits.' He has to use a whole 'nother machine to process his payments. I don't think that's necessary. I think there should be a way that you can process the funds off the same machine as the credit card machine. And then change the card to look like any other credit card, like don't, you know, put a person on front street and like just broadcast to the whole grocery store that I'm on benefits, cuz it's really no one else's business."

Former SNAP participant, Interview conducted for Heath, Holcomb and Pukelis (2022)

Cashier treats participant with less respect:

"I do notice that some cashiers or whatever will kind of treat you with a different set of respect. Like they'll treat you differently because they feel like, I guess, you're just a...person on the bottom. I don't like that. I have noticed that a couple times, like, you know, if I go in there and spend my credit card and it's black, you know, 'Hey Mr. Such-and-Such, good morning,' you know, everything is professional and up the standard, and how it should be, you go in there with your EBT card, but, 'Hey, you guys accept EBT or,' 'Oh, it's right there'. You know, now they think they can just talk to you crazy. You know, just handle you, the, the attitude that's portrayed to you is different than the attitude that's portrayed when you present a credit card, you know, I have noticed that, but it, it didn't bother me. It does bother me. It does because it's not right. But not to the point where I wouldn't use it because I'm not gonna let pride stand in the way of the greater goal...I noticed it 'cause I make purchases and if I use cash or credit card, the atmosphere is slightly different than when you go in there with the EBT card...the hospitality is not as warm, I guess. And not to say all the time or on a consistent basis, but I've seen it before."

Former SNAP participant, Interview conducted for Heath, Holcomb and Pukelis (2022)

Quotes from our survey respondents:

- *Hiding card*: "When I was on snap I often would not hold my card in any way where people could say [see] it"
- *Hiding card*: "I try to hide my card and some people get upset at what I buy [w]ith the snap benefits."
- *Judgement from cashiers and other shoppers*: "My experience pre-dated the change in terminology to 'SNAP'; it was Food Stamps, at the time. I believe the overt negativity that was very prevalent during that time has been reduced. The general public, including cashiers, appear to be either more accepting, or a least very much more quiet if they judge/disapprove. During my time, I actually had cashiers or a customer behind me in line, tell me I shouldn't be buying pork chops-I should be getting franks and beans, and they were harsh and nasty abou[t] it...just an example that happened many times...including telling me to 'get a job, you look like you can work' etc."

- *Self checkout*: "I am a longtime self-checkout user, but I have never had a negative experience with a cashier."
- *Online shopping*: "I'm not sure my experience with SNAP is typical of others, as I avoid grocery shopping in person and get everything I can online (at places that accept my SNAP card)... With this being the case, I haven't really experienced some of the disdain that I know a lot of SNAP users do. A family member who has also had to rely on SNAP benefits in the past told me that cashiers were routinely rude to her, and even other family members made disparaging comments about her receiving benefits."
- *Caseworker, negative*: "I can't convey to you how badly the woman at the food stamp office worked to make me and everyone else applying feel humiliated, and like we were trying to get away with something. I know this was part of the policy at the time under Reagan. It still revolts me so much I almost get sick thinking about it."
- *Caseworker, positive*: "Thankfully my experience has been mostly positive with applying and with the people who work at the SNAP offices."
- *Fear of judgment*: "My family previously declined SNAP benefits when my husband was out of work. This was 100% due to the thought of being judged."
- *Hassle*: "The whole process is embarrassing."
- *Guilt*: "I only had to receive benefits for a short time when I was pregnant and alone. This survey brought back some of the negative feelings I felt at that time which was over 40 years ago. I still feel guilty that I had to apply for help."
- *Switch from food stamps to SNAP*: "SNAP is much better than years ago when the food stamps that were actual paper coupons. That system was very embarrassing for those using them."

C Survey Details

C.1 Survey Recruitment

Respondents were invited by Prolific to participate in "A Study About Public Programs in the US." and saw the compensation and a brief study description. We concealed our identities and affiliations to avoid priming participants or inducing demand effects. Figure C.1 shows the screen participants saw before choosing to participate.

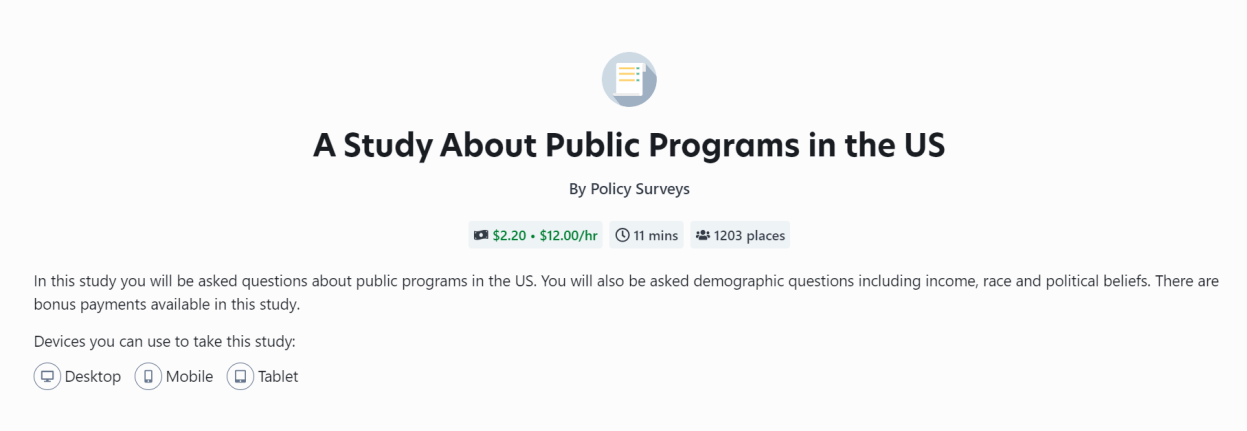


Figure C.1: Recruitment Screen Shown to Potential Survey Respondents

Notes: Potential survey respondents were shown this screen on the Prolific platform before deciding whether to click through to the survey. The first page of the survey was a consent form.

C.2 Sample Restrictions

We start with 1,708 respondents. We remove 63 potential bots with automated flags through Qualtrics (low reCAPTCHA score). Our largest sample restriction is removing 400 respondents (23% of the initial sample) who failed our attention check or self-reported low-quality responses. The final descriptive sample includes 1,245 respondents. For the experimental analysis, we remove another 185 treated respondents who spent less than 10 seconds on the intervention page: a benchmark we pre-specified.

C.3 Survey Questions

The texts of the vignette interventions are presented below. Curly brackets indicate the language was randomized. For the Work and Kids vignettes, we randomized the gender of the vignette's subject. Square brackets indicate the text shown was based on respondents' previous answers. For the Information vignette, language was based on respondents' initial belief about SNAP rationing and the randomized framing of the initial question they saw.

Control Now we're going to ask you a few more questions about SNAP.

Information Now we're going to ask you a few more questions about SNAP.

Earlier, you thought this statement was [TRUE; FALSE]:

["No matter how many people apply to SNAP, government money will not run out, and all people who apply and are eligible will receive benefits."; "If too many people apply to SNAP, government money will run out and some people who apply and are eligible will not receive benefits."]

[You were correct. The answer is; Actually, the answer is] [TRUE; FALSE].

No matter how many people apply to SNAP, government money will not run out, and all people who apply and are eligible will receive benefits.

This means that anyone who is eligible can receive benefits without taking them away from others who may need them more.

By US law: The government automatically sets aside "such funds as are necessary" for SNAP each year. SNAP benefits are an "obligation" of the U.S. government, which means the government needs to honor the redemption of all benefits it issues. *Food and Nutrition Act of 2008, Authorization for Appropriations Section 18 [7 U.S.C. 2027] (a)(1) and Section 15(d), citing 18 U.S. Code § 8.*

Work Now we're going to ask you a few more questions about SNAP.

Here's a statement from a {man; woman} explaining how {he; she} uses SNAP:

I'm eligible for SNAP and I enrolled. I see SNAP as a tool to help me look for a well-paying job. I use SNAP to buy groceries, and I'm using the money I save on groceries to buy professional clothes and transportation to get to job interviews. By using SNAP benefits now, I can invest in my career, and eventually I won't need SNAP any more.

Kids Now we're going to ask you a few more questions about SNAP.

Here's a statement from a {man; woman} explaining how {he; she} uses SNAP:

I'm eligible for SNAP and I enrolled. I see SNAP as a tool to help my kids. I use SNAP to buy groceries, and I'm using the money I save on groceries to buy my kids clothes, and for their school activities. By using SNAP benefits now, I can invest in my kids, and they won't need SNAP when they're grown up.