



# REPORT

FINAL REPORT

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## **Needs of and Service Use Among Participants in the Older Americans Act Title III-C Nutrition Services Program**

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October 5, 2018

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**Submitted to:**

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Contract Number: HHSP2332015000351/HHSP23337001T

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## EXECUTIVE SUMMARY

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Each year, hundreds of millions of meals are provided to older adults in America as part of the Title III-C Nutrition Services Program (NSP). Authorized under the Older Americans Act (OAA), the NSP promotes access to nutritious meals, facilitates social contact, and helps older adults maintain their independence in their homes and communities. Participants who are able to attend congregate meal sites typically receive lunch on one or more weekdays and, at some sites, also receive breakfast, dinner, or weekend meals. Congregate meal sites offer opportunities for participants to socialize with peers and receive other services such as nutrition education, screening, and counseling. These services help older adults identify their general and specific needs related to maintaining their health and managing nutrition-related diseases such as heart disease, hypertension, and diabetes.

Participants who are homebound receive nutritious home-delivered meals, typically five days per week. Like congregate meal settings, home-delivered meals offer an opportunity for socializing. Home-delivered meal volunteers might be older adults as well and, in addition to delivering meals, might offer an opening for face-to-face contact or conversation. This allows volunteers to relay important information about participants' well-being and needs to service providers. Homebound participants also receive nutrition education, screening, and counseling as well as non-nutrition services. In this way, the NSP provides homebound participants with a primary access point for many home- and community-based services to help meet their health and nutrition needs.

As part of its responsibility to administer the NSP, the Administration on Aging (AoA) within the Administration for Community Living (ACL) of the U.S. Department of Health and Human Services (DHHS) periodically evaluates its efficiency and effectiveness. In the most recent evaluation from 2015 to 2017, AoA contracted with Mathematica Policy Research to collect information from two main sources: (1) state and local agencies that oversee the program and provide program services, and (2) a national sample of program participants and nonparticipants. The goal of the evaluation was to examine program administration, service delivery, and cost, and to measure the effect of program participation on older adults' food security, socialization, diet quality, and longer-term health outcomes. The findings showed that meal provision has experienced a robust expansion over the past 20 years, with more agencies providing home-delivered meals and more agencies providing congregate meals that offer breakfast, dinner, or weekend meals, in addition to weekday lunches (Mabli et al. 2015). NSP participants generally had more favorable outcomes than nonparticipants, as indicated by lower rates of food insecurity, greater satisfaction with socialization opportunities, and improved diet quality (Mabli et al. 2017). For several outcomes including food security, improvements associated with participating in the program were larger for participants with less income than for those with more income.

Although the NSP serves a critical need among its participants, many older adults continue to face financial hardships and food access limitations. Among congregate meal and home-delivered meal participants, 15 to 25 percent reported that they experience challenges making ends meet, and 4 to 9 percent reported having to make difficult choices of how to spend scarce household resources, such as whether to buy food or pay for rent, utility bills, or needed medications (Mabli et al. 2017). Although the majority of participants were food secure, 16

percent of congregate meal participants and 23 percent of home-delivered meal participants had experienced food access limitations during the past month due to lack of money or other resources—they were food insecure. For participants in the lowest income quartile (approximately below the federal poverty level), these percentages were dramatically higher at 32 and 35 percent, respectively.

The evaluation described the level of need among all program participants, but little is known about whether specific groups of participants disproportionately experience these challenges. Learning more about the characteristics and circumstances of these participants can allow AoA and state and local agencies to identify whether there are types of participants the program could target to provide services that help mitigate these challenges. Thus, an objective of this report is to examine how participants' level of need varies by participant characteristics.

The evaluation also found that participants' frequency of program use differed—43 percent of congregate meal participants typically received five or more congregate meals per week and 57 percent received up to four meals per week (Mabli et al. 2017). For home-delivered meal participants, these percentages were 71 and 29, respectively. There was also variation in whether congregate meal participants attended multiple congregate meal sites in a given week. Learning more about the characteristics and circumstances of participants who receive meals more often, who use multiple program sites, and who change their use of the program over the course of a year can allow AoA and state and local agencies to identify whether there are specific groups of participants who underuse the program and whom the program could target to increase use. Thus, a second report objective is to assess patterns of participation in the core program services of receiving congregate and home-delivered meals.

Finally, the evaluation revealed that the ways in which participants met their needs related to food and nutrition, health, and personal care differed. Participants reported having access to a wide array of services provided through the NSP, as well as other services available in the community, yet little is known about the extent to which they use these services. Assessing how participants use other food and non-food assistance programs outside of the NSP and use non-meal services offered through the NSP can help AoA and state and local agencies understand more thoroughly how participants meet their basic needs and even identify to whom to target outreach and referrals to these programs and services. Thus, a third report objective is to assess participation in the Supplemental Nutrition Assistance Program (SNAP) and receipt of emergency food, as well as participation in the Low Income Home Energy Assistance Program (LIHEAP). This objective also entails assessing participation in services at the meal site, at home, or in the community such as nutrition counseling, case management services, transportation services, and personal care services.

The report draws on information obtained from comprehensive surveys of congregate and home-delivered meal participants in 2015–2016 and 2016–2017. The surveys were administered to random samples of congregate and home-delivered meal participants, based on probability samples of local NSP agencies that were surveyed as part of an earlier process study conducted for AoA (Mabli et al. 2015). Descriptive, tabular analysis was used to characterize NSP participants' needs, frequency of program use, and participation in other programs and use of services.



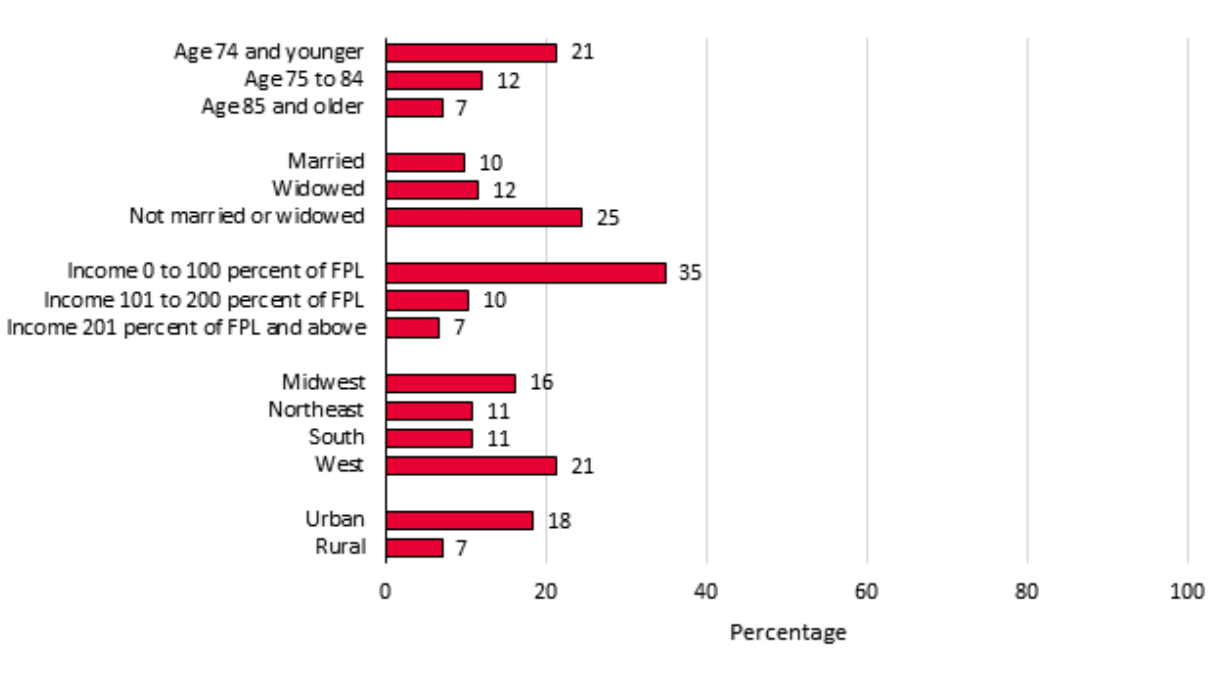
The following are key findings from this study.

### A. NSP participants' needs and trade-offs in making ends meet

The NSP has been shown to have beneficial effects on food security, socialization, and diet quality (Mabli et al. 2017), but a nontrivial percentage of participants continue to experience challenges making ends meet and face food hardships due to insufficient income. This study examined three measures of need: whether participants experienced challenges making ends meet, faced trade-offs between purchasing food and meeting other basic needs, and experienced food insecurity.

**Challenges making ends meet.** About 15 percent of congregate meal participants and 23 percent of home-delivered meal participants reported that they experience challenges making ends meet. Younger congregate and home-delivered meal participants were about three times more likely than older participants to have experienced challenges (Figures ES.1 and ES.2). Income was also an important factor; congregate meal participants who were poor, defined as having income below 100 percent of the DHHS federal poverty guidelines, were five times more likely to face hardships than those with income above 200 percent of poverty (35 versus 7 percent); home-delivered meal participants who were poor were nearly three times more likely to face hardships than higher-income participants (33 versus 12 percent). Hardships were also more common for participants living in urban areas, participants who were not married, and, for congregate meal participants, those living in the West relative to those living in the Northeast (21 versus 11 percent).

**Figure ES.1. Percentage of congregate meal participants reporting challenges making ends meet, by participant characteristics**

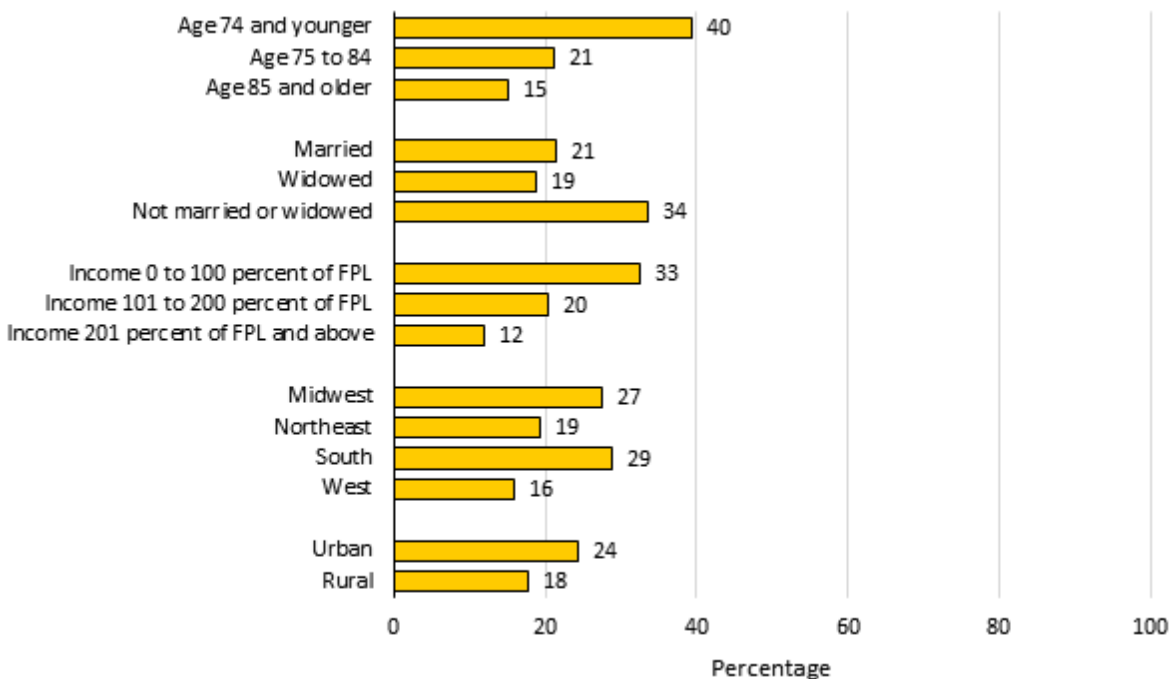


Source: AoA NSP outcomes survey, 2015-2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants.

FPL = federal poverty level

**Figure ES.2. Percentage of home-delivered meal participants reporting challenges making ends meet, by participant characteristics**



Source: AoA NSP outcomes survey, 2015-2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants.  
FPL = federal poverty level

**Food hardships and trade-offs.** Some participants faced trade-offs in purchasing food each month. For congregate meal participants, the most common was choosing between buying food and buying medications (7 percent). A similar percentage of congregate meal participants (7 percent) made trade-offs between buying food and paying utility bills, and a smaller percentage made trade-offs between buying food and paying rent (4 percent). Although these percentages are fairly small among the full population of congregate meal participants, the percentage of participants who made trade-offs between purchasing food and other basic needs was much higher for specific groups of people. For example, 10 percent of congregate meal participants age 74 and younger and 18 percent of congregate meal participants with income below 100 percent of poverty made trade-offs between buying food and paying utility bills. Individual trade-offs were more common among Hispanic participants (15 to 16 percent) than among non-Hispanic black or white participants (0 to 7 percent) and among those living in the West relative to those living in the Northeast (11 versus 5 percent).

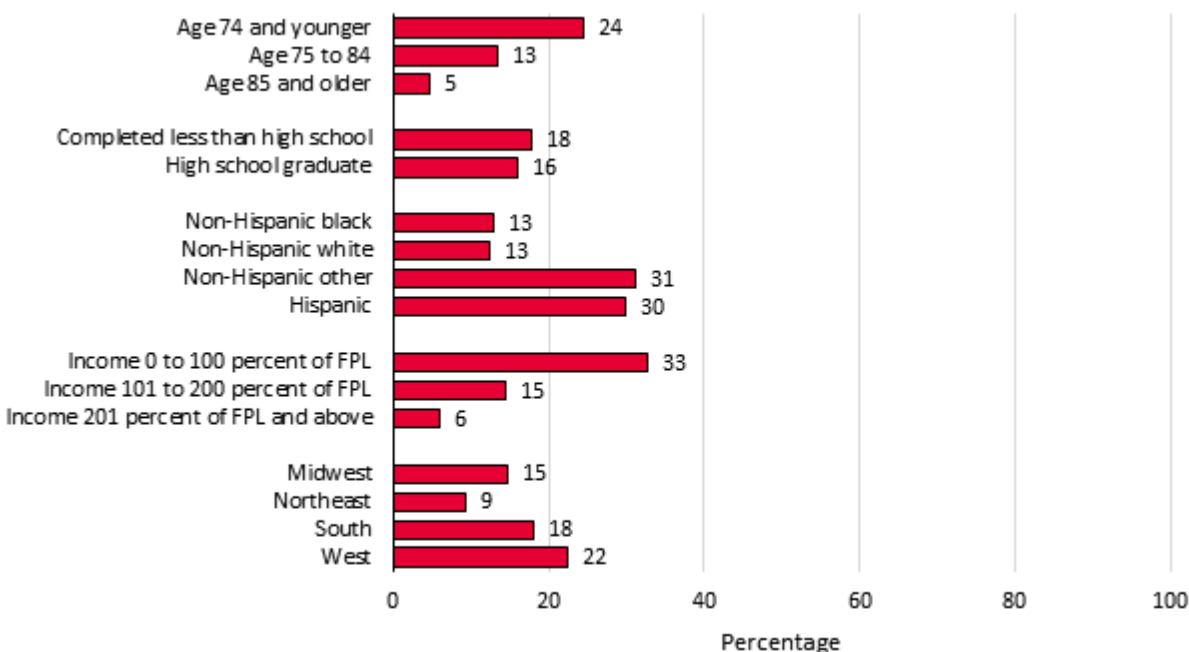
Home-delivered meal participants also made trade-offs between purchasing food and meeting other basic needs. The most common was choosing between buying food and paying utility bills (9 percent), with smaller percentages of participants making trade-offs between buying food and buying medications (4 percent) and between buying food and paying rent (5 percent). As was the case for congregate meal participants, the prevalence of making trade-offs among home-delivered meal participants was highest for participants age 74 and younger. Participants who were divorced, separated, or never married were also more likely to face these

trade-offs than those who were married or living with a partner. The difference by income for home-delivered meal participants was much smaller than it was for congregate meal participants.

**Food insecurity.** Food security is having access at all times to enough food for an active, healthy life for all household members. Although the majority of NSP participants were food secure, 16 percent of congregate meal participants and 23 percent of home-delivered meal participants had experienced food access limitations during the past 30 days due to lack of money or other resources—they were food insecure.

Many of the types of participants who were more likely to face financial hardships and face trade-offs in purchasing food were also more likely to be food insecure (Figure ES.3). For example, the percentages of congregate and home-delivered meal participants who were food insecure were lower for older participants. For both congregate and home-delivered meal participants, those age 74 and younger experienced the highest rates of food insecurity (24 percent for congregate and 44 percent for home-delivered meal participants), and those age 85 and older experienced the lowest rates (5 and 16 percent, respectively). The rate was nearly six times higher for congregate meal participants with incomes below 100 percent of poverty than for those with income equal to at least 201 percent of poverty (33 versus 6 percent), and was three to four times higher for home-delivered meal participants with less income than for those with more income (38 versus 11 percent).

**Figure ES.3. Percentage of congregate meal participants who experienced food insecurity, by participant characteristics**

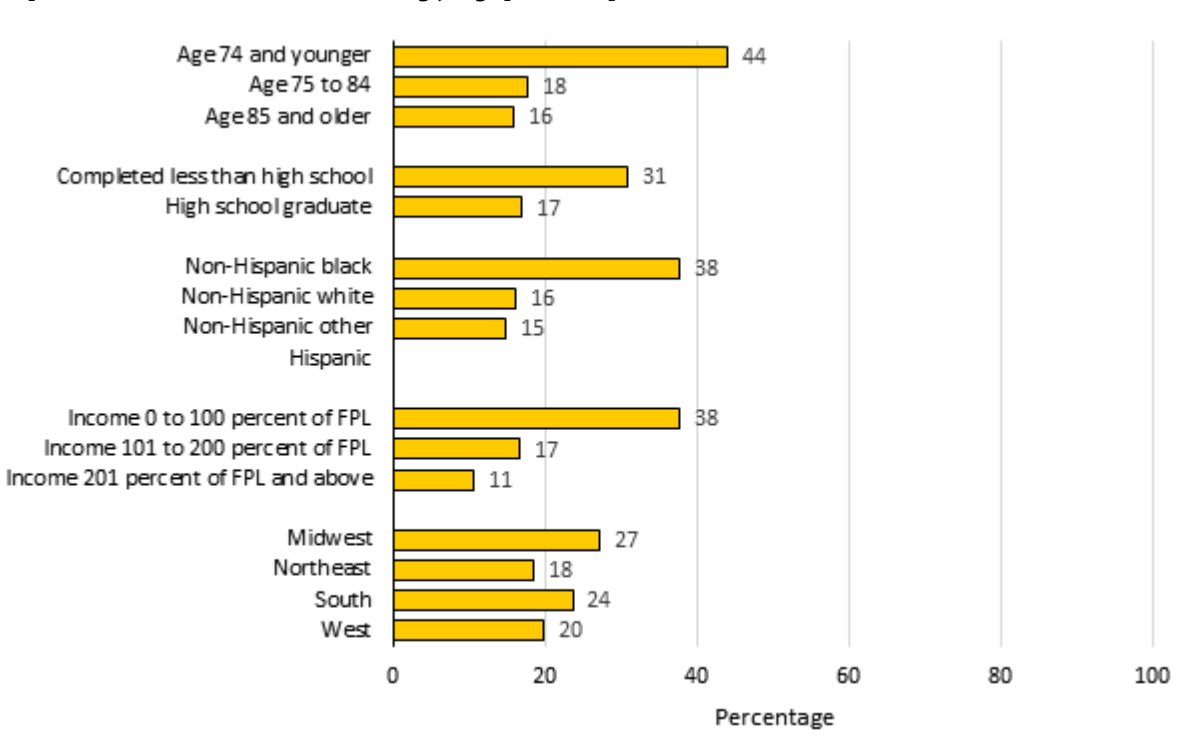


Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants.  
FPL = federal poverty level

Food insecurity was nearly twice as high for home-delivered meal participants who had not finished high school than for those who had (31 versus 17 percent) (Figure ES.4); there was only a small difference for congregate meal participants. The prevalence of food insecurity differed by race and ethnicity as well. Among congregate meal participants, the rate was more than twice as large for Hispanic participants than for non-Hispanic black or white participants (30 versus 13 percent). Among home-delivered meal participants, non-Hispanic black participants were more than twice as likely as non-Hispanic participants of other races to be food insecure (38 versus 15 to 16 percent). There were geographic differences in food insecurity rates as well. Similar to the prevalence of experiencing challenges in making ends meet and facing trade-offs in purchasing food, rates of food insecurity were more than twice as large for congregate meal participants living in the West than for those living in the Northeast (22 versus 9 percent).

**Figure ES.4. Percentage of home-delivered meal participants who experienced food insecurity, by participant characteristics**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants.  
FPL = federal poverty level

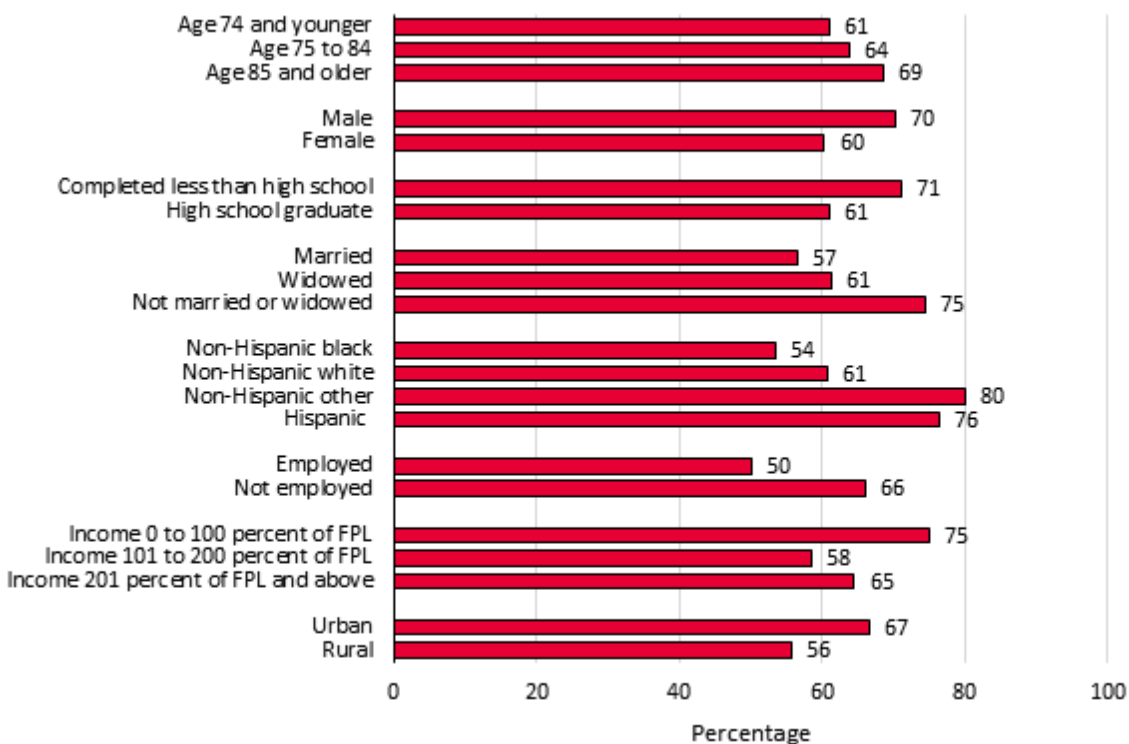
**Summary.** Considering all three measures of need and hardships together, many common factors were associated with having a higher level of need and a greater likelihood of experiencing hardships. Participants who were younger (age 74 and younger) and had less income (those with income below 100 percent of poverty) reported the highest level of need and were most likely to face hardships. Other common factors were not being married, living in an urban area, and, for two of the three measures, being Hispanic. Finally, there were regional differences in the prevalence of need and hardships, with participants living in the West reporting greater challenges and food hardships than those living in the Northeast.

## B. Patterns of participation in the NSP

NSP participants received meals frequently. For congregate meal participants, 43 percent received five or more meals per week and 64 percent received four or more meals per week. Most participants (79 percent) attended a single site for meals, whereas 12 percent attended two meal sites. Similarly, 71 percent of home-delivered meal participants received five or more meals per week and 76 percent received four or more meals per week. Nearly all home-delivered meal participants (97 percent) received meals from a single site.

**Frequency of NSP use per week.** The frequency with which congregate meal participants used the program differed by age, gender, marital status, and race and ethnicity (Figure ES.5). The percentage of congregate meal participants who received four or more meals per week increased with age. Sixty-nine percent of participants age 85 and older ate at a meal site at least four days per week compared with 61 percent of participants age 74 and younger. Male participants participated more frequently than female participants (70 versus 60 percent) as did participants who were divorced, separated, or never married compared with those who were married or living with their partner (75 versus 57 percent). Just over three-quarters (76 percent) of Hispanic participants ate at the meal site at least four times per week, compared with 54 percent for non-Hispanic black participants and 61 percent for non-Hispanic white participants.

**Figure ES.5. Percentage of congregate meal participants who ate at a meal site four or more days per week, by participant characteristics**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants.  
FPL = federal poverty level

Frequency of use also differed by education, income, and employment status. The percentage of participants who ate at meal sites at least four days per week was higher among the following participants: those who had not completed high school relative to those who had completed high school (71 versus 61 percent); those with incomes below 100 percent of poverty relative to those with higher income (75 versus 58–65 percent); and among those who were not employed relative to those who were employed (66 versus 50 percent). Participants living in urban areas used the program more frequently than those in rural areas (67 versus 56 percent).

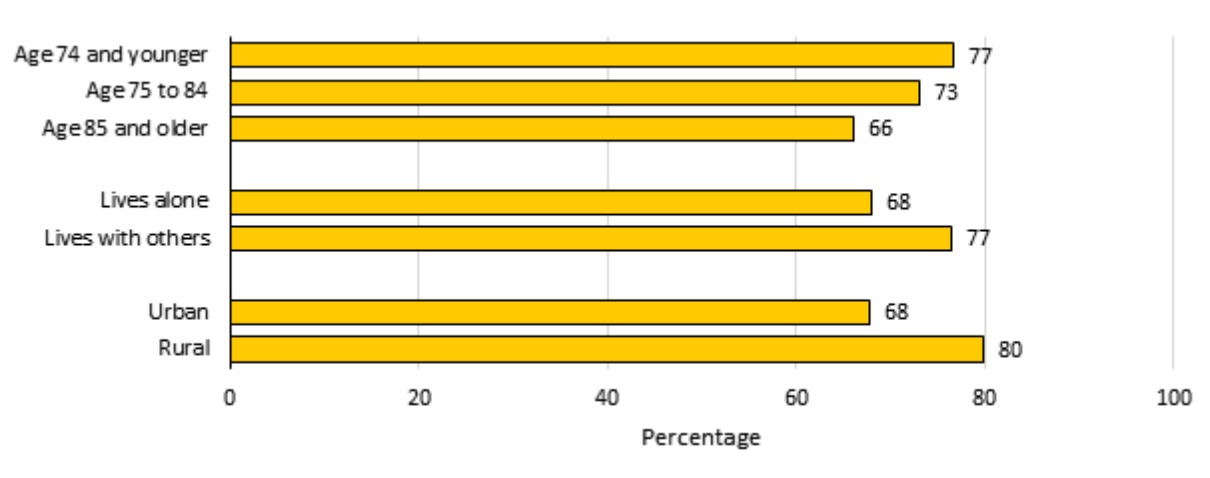
Although younger congregate meal participants were less likely than older participants to eat at a meal site at least four times per week, they were more likely to visit multiple meal sites. About 25 percent of participants age 74 and younger used more than one meal site, compared with 17 to 18 percent of older participants. Participants who used multiple meal sites were also more likely to be male than female (29 versus 17 percent), to live alone rather than with others (23 versus 17 percent), and to be Hispanic rather than non-Hispanic black or white (29 versus 17 and 19 percent, respectively).

Participants with less income were not only more likely than participants with higher income to visit meal sites at least four times per week, they were also more likely to visit multiple meal sites. About 31 percent of participants with household incomes below 100 percent of poverty ate at multiple meal sites compared with 17 percent of those with higher incomes. Visiting multiple sites was also related to geography. Participants who lived in the West were nearly twice as likely to visit multiple sites relative to participants living in other regions (32 percent versus 11–17 percent), as were those living in urban areas relative to those in rural areas (23 versus 14 percent).

Unlike congregate meal participants, whose likelihood of eating program meals more often increased with age, home-delivered meal participants were less likely to receive program meals five or more days per week the older they were (Figure ES.6). About 77 percent of participants age 74 and younger received a meal at least five days per week compared with 66 percent of participants age 85 and older. Also unlike congregate meal participants, home-delivered meal participants who lived with others received meals more frequently than those who lived alone (77 versus 68 percent), as did those who lived in rural areas relative to urban areas (80 versus 68 percent).

Similar to congregate meal participants, home-delivered meal participants who had not completed high school were more likely than those who had completed it to receive meals at least five days per week (77 versus 67 percent). Participants in the South and West were also more likely to do so, compared with participants in other geographic regions (83–85 versus 54–63 percent).

**Figure ES.6. Percentage of home-delivered meal participants who received program meals five or more days per week, by participant characteristics**

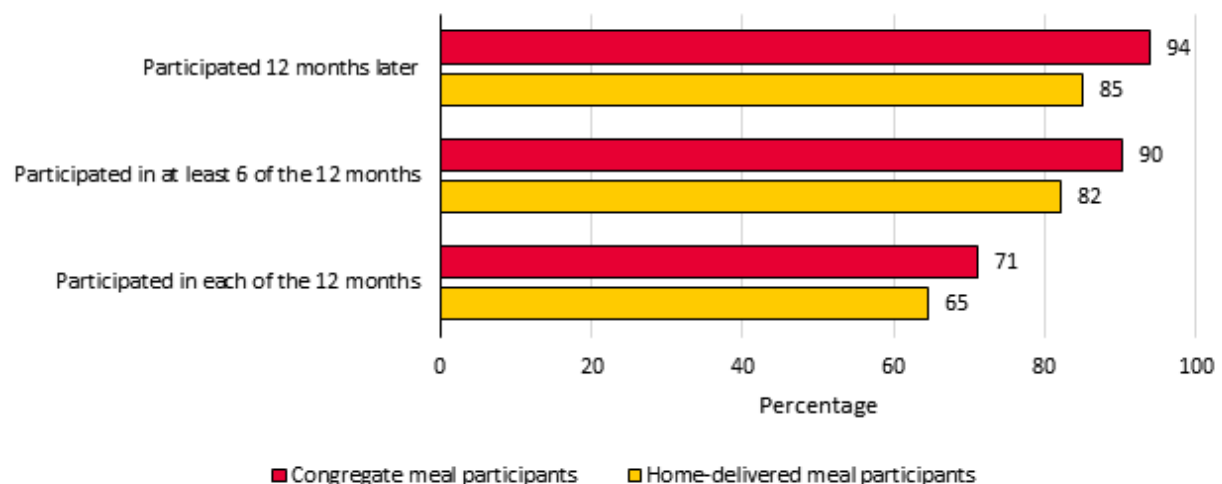


Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants.

**Patterns of participation over a year.** The rate of continued participation in the NSP among congregate meal participants was high over the course of a year, with 94 percent of older adults receiving congregate meals still participating about 12 months later (Figure ES.7). Smaller, yet still sizable, percentages of older adults participated in at least 6 of the next 12 months (90 percent) and even in each of the next 12 months (71 percent). Thus, the rate of retention in the NSP among congregate meal participants was high in terms of their continued participation and the number of months in which they participated.

**Figure ES.7. Percentages of participants who continued to participate in the NSP over the course of a year**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants.

Little variation existed in the types of congregate meal participants who continued to participate in the NSP about 12 months later, with slightly greater variation in the percentage of participants who continued to receive congregate meals for at least 6 months of the next year. Participants were more likely to participate in at least 6 months if they were age 84 and younger, relative to older participants (90–93 percent versus 84 percent); if they had completed less than high school, relative to those who completed high school (94 versus 89 percent), and if they had less income (94 percent for those with income below 100 percent of poverty versus 88 percent for those with income at or above 201 percent of poverty).

As was true for congregate meal participants, the rate of continued participation in the NSP for home-delivered meal participants was high, with 85 percent of older adults receiving home-delivered meals still participating about 12 months later (Figure ES.7). Eighty-two percent of older adults participated in at least 6 months of the year and 65 percent participated in every month. Although the rate of retention in the NSP among home-delivered meal participants was high, this rate was lower than that for congregate meal participants. Similar to trends among congregate meal participants, few characteristics among home-delivered meal participants were associated with continued participation about 12 months later. However, unlike the continuation rates for congregate meal participants, the percentages of home-delivered meal participants who participated in at least 6 months of the year and in every month of the year also varied little by participant characteristics.

**Summary.** Considering both the frequency of use in a given week and continued participation over the following year, many factors were associated with greater use of the NSP. For congregate meals, participants who were Hispanic, poor, lived in urban areas, or lived in the West were more likely both to receive meals more often and to visit multiple meal sites. Younger participants ate at meal sites less often than older participants, but were more likely than older participants to visit multiple sites. Other factors associated with frequency of use included male gender, not being married, living alone, completing less than high school, and being unemployed. Many of these characteristics were also associated with having a higher level of need in terms of facing challenges making ends meet, trade-offs purchasing food and other basic needs, and experiencing food insecurity (in particular, being Hispanic, poor, and living in the West).

Fewer connections existed between need, hardships, and frequency of use for home-delivered meal participants, however. Younger participants received home-delivered meals more frequently than older participants and faced greater challenges and food hardships. However, home-delivered meal participants who lived in the West used the program most frequently relative to participants in other regions, but had the lowest food insecurity rates.

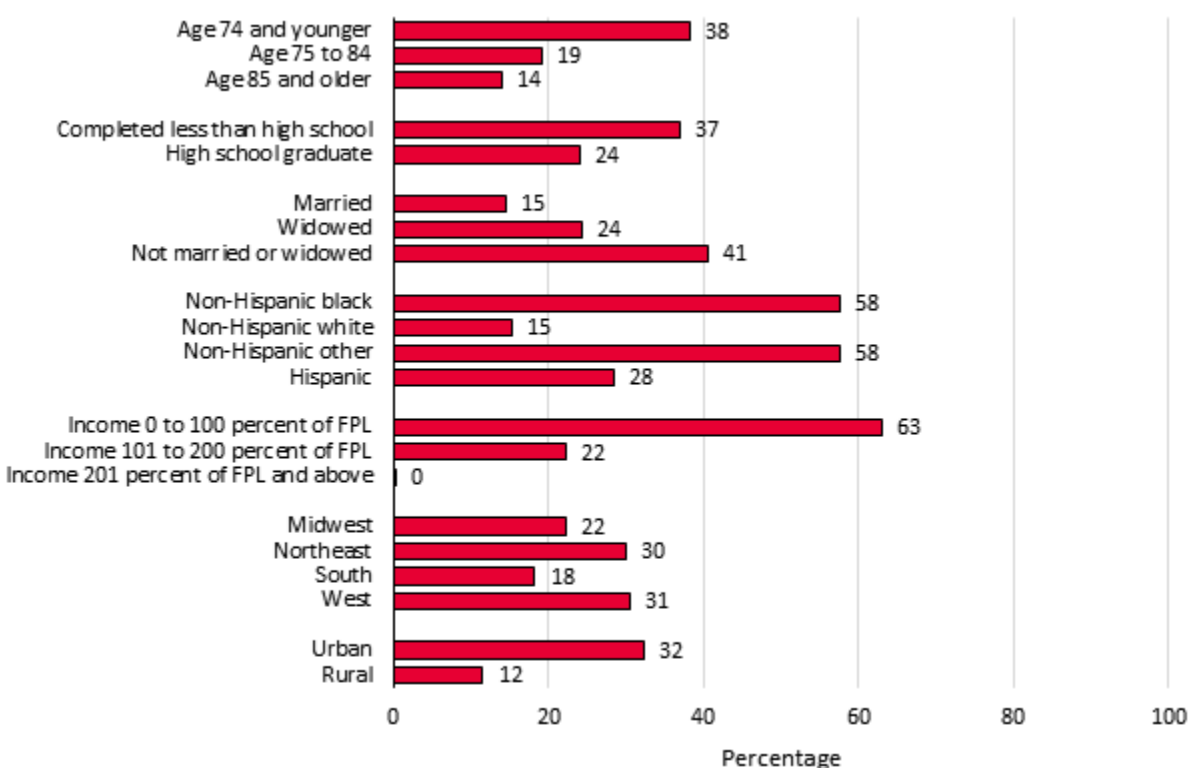
### **C. Participation in other programs and use of NSP services**

Differences existed in how participants attempted to meet their needs related to food and nutrition, health, and personal care. Some participated in the Supplemental Nutrition Assistance Program (SNAP), received food from emergency food pantries and through soup kitchens and shelters, and received heating and cooling assistance through LIHEAP. Some also used non-meal services at the meal site, at home, or in the community such as nutrition counseling, case management services, transportation services, and personal care services.



**SNAP participation.** More than one-quarter of congregate and home-delivered meal participants received assistance to purchase food through SNAP (27 and 30 percent, respectively). Congregate meal participants were more likely to participate in SNAP if they were younger (Figure ES.8); 38 percent of individuals age 74 and younger participated, compared with 19 percent of those age 75 to 84 and 14 percent of those age 85 and older. SNAP participation also was associated with completing less high school relative to being a high school graduate (37 versus 24 percent); not being married relative to being married or living with a partner (24–41 percent versus 15 percent); and being Hispanic, non-Hispanic black, or non-Hispanic other relative to being non-Hispanic white (28–58 percent versus 15 percent). The largest differences were across income groups: 63 percent of older adults with household income less than or equal to 100 percent of poverty participated in SNAP compared with 22 percent of those with income between 101 and 200 percent and less than 1 percent of those with income at or above 201 percent of poverty. SNAP participation was highest in the West and Northeast (31 and 30 percent) and lowest in the South (18 percent). It was also higher among congregate meal participants in urban areas than in rural areas (32 versus 12 percent).

**Figure ES.8. Percentage of congregate meal participants who received SNAP benefits, by participant characteristics**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

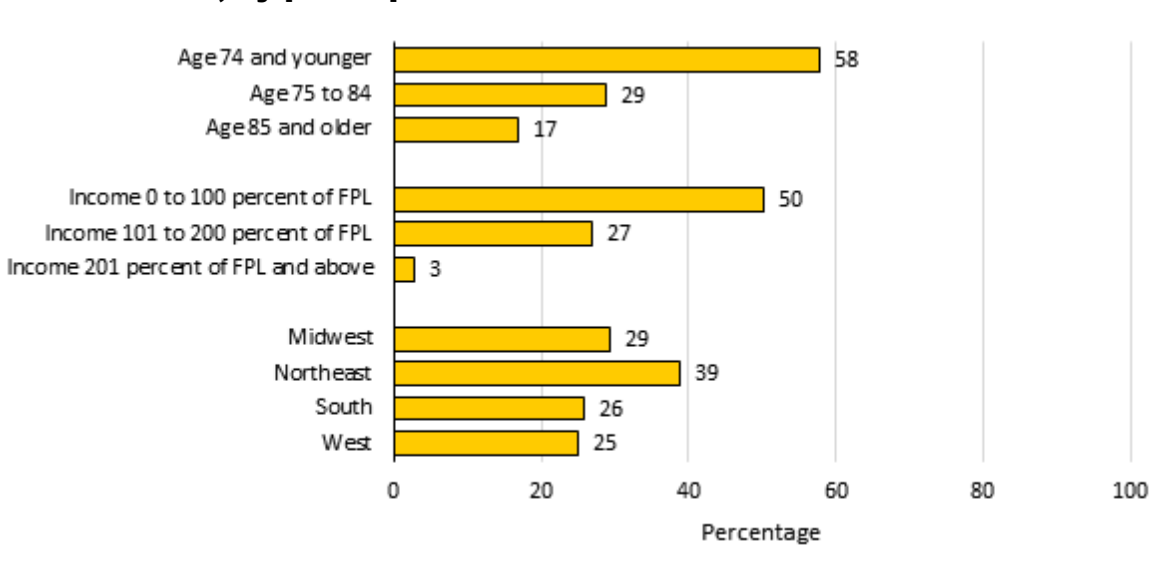
Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants.

FPL = federal poverty level

Many of the same factors were associated with SNAP participation among home-delivered meal participants (Figure ES.9). The largest differences were across age groups and income groups. About 58 percent of individuals age 74 and younger participated, compared with 29

percent of those age 75 to 84 and 17 percent of those age 85 and older. About 50 percent of older adults with household income less than or equal to 100 percent of poverty participated in SNAP compared with 27 percent of those with income between 101 and 200 percent and 3 percent of those with income at or above 201 percent of poverty. Participation was highest in the Northeast relative to the other regions (39 versus 25–29 percent).

**Figure ES.9. Percentage of home-delivered meal participants who received SNAP benefits, by participant characteristics**



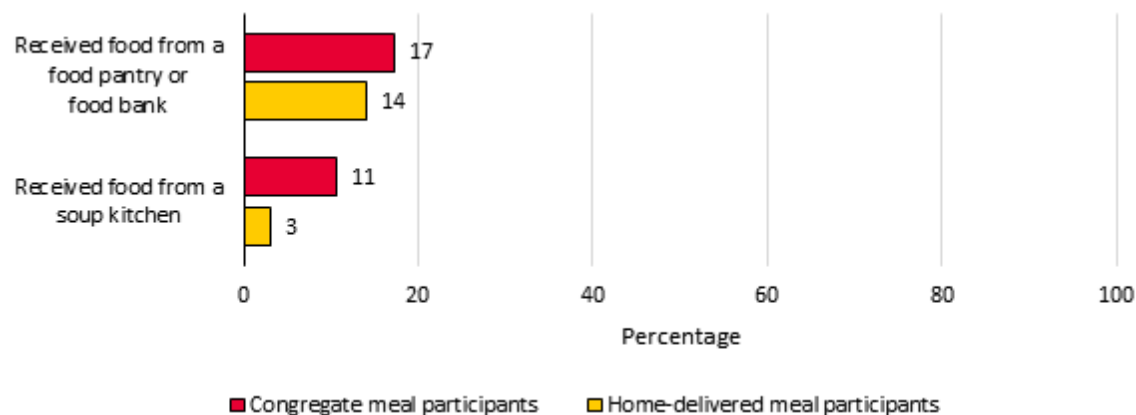
Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants.  
FPL = federal poverty level

**Emergency food pantries.** Receiving food from emergency food pantries was about half as likely as participating in SNAP. About 17 percent of congregate meal participants and 14 percent of home-delivered meal participants received food from food pantries in the past 30 days (Figure ES.10). Many of the factors associated with participating in SNAP were associated with pantry use for congregate meal participants, including being younger; being female; completing less than high school; being divorced, separated, or never married; being Hispanic or non-Hispanic black (relative to non-Hispanic white); having less income; and living in an urban area. Pantry use was nearly three times as likely for participants age 74 and younger than for those ages 75 to 84 (29 versus 9 percent) and was over twice as likely among poor participants than for those who were near-poor (40 versus 14 percent). For home-delivered meal participants, the factors associated with SNAP participation generally were associated with receiving emergency food. Exceptions included higher rates of receiving emergency food in rural areas than in urban areas (23 versus 11 percent) and among married participants than non-married participants (24 versus 8–12 percent).

**Food assistance from soup kitchens.** Receiving food from soup kitchens in the past 30 days was less common than participating in SNAP or receiving food from emergency pantries, particularly for home-delivered meal participants. About 11 percent of congregate meal participants and 3 percent of home-delivered meal participants received food from soup kitchens in the past month.

**Figure ES.10. Percentage of congregate and home-delivered meal participants who received emergency food**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

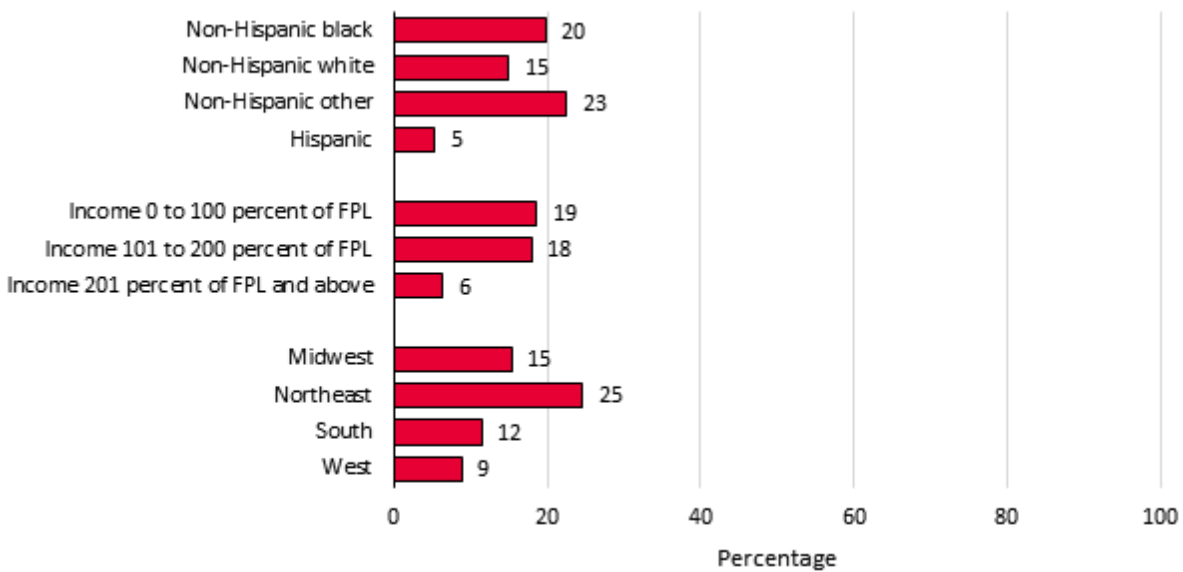
Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants.

**Emergency assistance from LIHEAP.** LIHEAP offers financial assistance to low-income families, targeting older adults and other vulnerable populations, to help pay home heating and cooling bills. Ten percent of congregate meal participants and 13 percent of home-delivered meal participants received energy assistance such as LIHEAP.

**Non-meal NSP services.** Participants also used non-meal services at the meal site, at home, or in the community. About 15 percent of congregate meal participants and 19 percent of home-delivered meal participants used these types of nutrition and supportive services. Home-delivered meal participants used personal care services or home visits for physical, occupational, or speech therapy (11 percent); case management services (10 percent); and light housekeeping services or chore services (11 percent). With few exceptions, congregate meal participants were less likely than home-delivered meal participants to receive these services.

Using nutrition and supportive services was more likely among congregate meal participants who were female, non-Hispanic black, not employed, had less income, and lived in the Northeast. The largest differences were for participants who lived in the Northeast than those who lived in the West (25 versus 9 percent), those who had income below 100 percent of poverty versus participants who had income at least 201 percent of poverty (19 versus 6 percent), and non-Hispanic black and non-Hispanic other participants versus Hispanic participants (20–23 percent versus 5 percent) (Figure ES.11). Among home-delivered meal participants, receiving nutrition and supportive services was more likely among participants who had completed high school than those who had not (25 versus 11 percent), those living alone than those living with others (22 versus 15 percent), and those living in the Northeast than those living the West (25 versus 15 percent) (Figure ES.12).

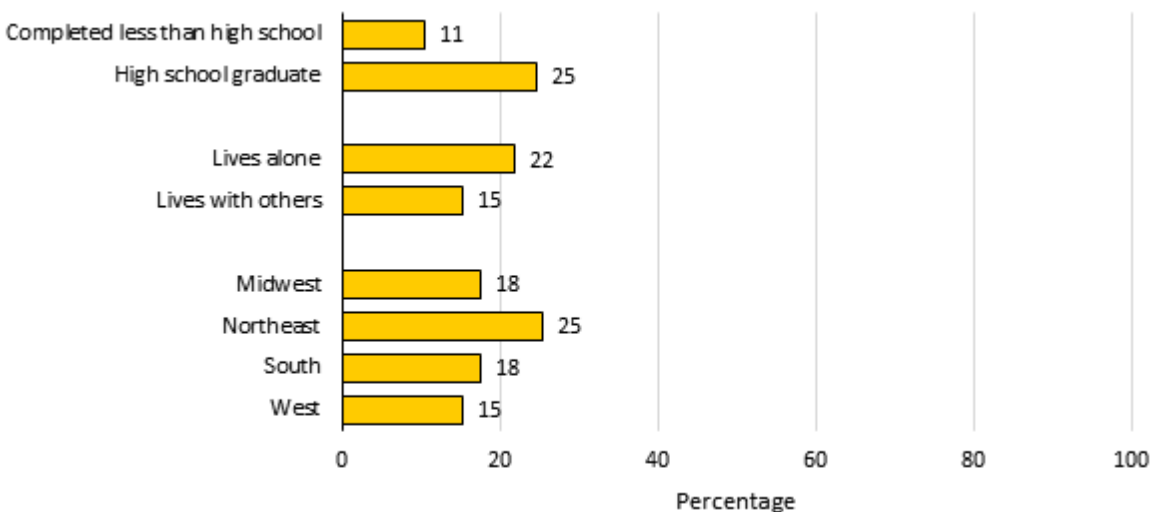
**Figure ES.11. Percentage of congregate meal participants who used any nutrition or supportive services in the past six months, by participant characteristics**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants.  
FPL = federal poverty level

**Figure ES.12. Percentage of home-delivered meal participants who used any nutrition or supportive services in the past six months, by participant characteristics**



Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants.

**Summary.** Considering the full set of food assistance, energy assistance, and other nutrition and supportive services together, participants were more likely to participate in these programs and receive these services if they were younger; had completed less than high school; were divorced, separated, or never married; and were poor. In most cases, the largest differences in program participation and service use were by age and income. Although there were several exceptions, for most programs and services, participation was associated with living in an urban area and being female. For SNAP and emergency pantry participation—the two programs with the highest participation rates—participation was greater among Hispanic participants than non-Hispanic participants.

Many of these factors were the same as those associated with higher levels of need. In particular, participants who were younger, had less income, were not married, and lived in an urban area were more likely (1) to experience food hardships and challenges making ends meet and (2) to participate in SNAP, receive emergency food or energy assistance, or use other nutrition and supportive services. Thus, participants with the greatest need were the most likely to participate in food assistance programs and receive non-meal services.

#### **D. Implications for policy and future research**

Less than one-quarter of participants reported experiencing challenges making ends meet, faced food hardships, or were food insecure; however, specific groups of participants disproportionately experienced these challenges and were unable to fully meet their food needs. By characterizing these types of participants, AoA and state and local agencies can identify the types of participants the program could target to provide additional or more intensive services that help mitigate these challenges. In particular, based on the findings in this report, agencies can target additional program services to participants who are younger, have less income, are not married, and live in an urban area. AoA can take a number of steps to learn more about how to meet participants' needs. Below, we have separated these into steps related to learning more about program participation patterns and use of community programs and non-meal NSP services.

**Program participation patterns.** AoA can assess the number of meals that congregate and home-delivered meal participants with these characteristics are receiving. Congregate meal participants often decide how many times per week to visit and eat at the meal site, but many sites have a set number of days in which they operate. Thus, for congregate meal participants, understanding the factors that determine an agency's number of operating days can help identify ways of increasing availability of meals to participants who need them. For sites that already offer meals many days per week, understanding why participants who face food hardships do not participate more days per week can help identify ways of increasing participation further.

The findings from the second objective of this report can help AoA understand participation patterns and, specifically, whether participants with the greatest need are participating often and intensively enough. Congregate meal participants who were Hispanic, were poor, were not married, completed less than high school, were not employed, lived in urban areas, and lived in the West were more likely to receive meals more often and to visit multiple sites. AoA could learn more about the groups that participated relatively less or did not visit multiple meal sites (such as participants with more income and those who have completed high school) to learn whether lower levels of participation reflect lower levels of need or reflect barriers to

participation. For example, participants who had less income, were not married, and lived in urban areas reported experiencing greater challenges, food hardships, and food security, and were also more likely to participate frequently and visit multiple sites. However, although younger participants reported experiencing more challenges and food hardships, they participated less often than older participants, which might reflect a barrier to participation. Similarly, for home-delivered meal participants, fewer connections existed between need, hardships, and frequency of use.

For these reasons, AoA could obtain more information from participants about whether they would like to participate more but cannot due to limited availability of meals or program services. For congregate meal participants, understanding reasons for visiting multiple meal sites is also important. Participants may visit multiple sites because their main meal site operates only a few days each week or because the agencies that provide the other services they obtain in the community are co-located with other meal sites.

This report examined for the first time the rates of continued participation in the NSP over the course of a year. The rate of continued participation in the NSP over a 12-month period was high (94 percent of congregate meal participants), but the rate of participation in every month of the following year was lower (71 percent). For home-delivered meal participants, these percentages were 85 and 65 percent, respectively. AoA could assess whether participants who want to continue receiving program meals can do so or whether participants face barriers to continued participation. For example, among the 29 percent of congregate meal participants who did not participate each month in the next year, what percentage continued to experience challenges meeting their food needs but could not participate because of transportation barriers getting to the meal site? What percentage chose not to go out in inclement weather due to fear of falling? What percentage could not participate because the meal site was not operational for part of the year or because of changes in volume or wait list policies? Knowing more about why participants change their frequency and intensity of participation over the course of the year can provide AoA with additional information about how participants use the program to help meet their needs.

**Use of community programs and non-meal NSP services.** Helping participants overcome challenges making ends meet and fulfilling their food needs is also possible by increasing access to existing food assistance programs at the national level such as SNAP or at the local level such as those programs providing emergency food. It is also possible by increasing access to non-meal nutrition and supportive services at NSP meal sites.

Participation in SNAP is generally low, particularly given the high level of need among many of the NSP participants. Among congregate meal participants, the SNAP participation rate was 27 percent among all participants and 63 percent among those who were poor. (The analogous percentages for home-delivered meal participants were 30 and 50 percent, respectively.) Thus, even among participants who were poor and who were likely income-eligible for SNAP, 27 to 50 percent of older adults were not participating in SNAP. AoA could learn more about whether this reflects older adults' lack of knowledge about the program or their potential eligibility, a sense of social stigma, an inability to cook meals at home, or a perceived inconvenience from participating in the program (for example, that receiving program benefits do not outweigh requirements associated with participating in the program in terms of

recertifications and reporting changes in one's circumstances). The same line of inquiry is appropriate when asking participants about receiving food from emergency pantries, kitchens, or shelters.

The geographic differences in participation in LIHEAP were sizable. However, even in the Northeast, only 25 percent of participants received heating and cooling services through the program. Even among the program's target population of low-income people, the participation rate was only 19 percent (for participants in all regions of the country). Thus, as for SNAP and other food assistance programs, AoA could learn more about whether lower take-up rates reflect a lack of awareness about the program or its requirements. Learning how meal sites promote access to the program during warm and cold seasons would also be useful.

Finally, low percentages of participants reported receiving non-meal services at the meal site, at home, or in the community, such as home visits for physical, occupational, or speech therapy; case management services; and light housekeeping services or chore services (15 percent for congregate meal participants and 19 percent for home-delivered meal participants). Learning more about the variation in receiving these services can help AoA understand whether participants who need the services are adequately receiving them. In particular, AoA could assess whether the large geographic difference in receiving services between the Northeast and other regions reflects differences in agencies' provision of services or in participants' use of services.

**Implications for future research.** The findings of this descriptive study suggest several substantive research directions, which include the following:

1. Examine the reasons why home-delivered meal participants in rural areas were much more likely than those in urban areas to face trade-offs between purchasing food and meeting other basic needs, whereas congregate meal participants experienced more trade-offs in urban areas.
2. Assess the determinants of geographic differences in challenges, food hardships, and food insecurity between participants living in the West and the Northeast. Do these differences reflect geographic variation in the cost of providing a program meal or the prices that participants pay for food where they live?
3. Examine why NSP participants who were older were less likely to be food insecure than those who were younger. Does this reflect differences in education, living arrangements (living alone versus with others), ability to cook meals at home, or income?
4. Examine differences in food insecurity among older adults by ethnicity. Why did Hispanic participants have such different food insecurity rates from those who are non-Hispanic?
5. Identify why some congregate meal participants visit multiple meal sites, especially among high-need participants.
6. Describe the characteristics of participants with greater needs who participated less frequently than those with lower levels of needs.
7. Assess whether the rate of retention in the NSP among home-delivered meal participants was lower than the rate among congregate meal participants due to having poorer health.

8. Identify the factors associated with SNAP participation among those who were income-eligible.
9. Examine the association between SNAP and food security. In particular, were NSP participants who did not receive SNAP benefits more likely to be food secure after accounting for income?
10. Identify the reasons why some NSP participants participate less often, or not at all, approximately one year later.
11. Examine the reasons behind large geographic differences in nutrition and supportive services at NSP meal sites.

Answering these questions will enable AoA and state and local agencies to target more precisely the populations the NSP serves, identify groups of people who require more intensive services that help mitigate food hardships and other challenges, and increase retention in the program among older adults who are in greatest need of assistance.



## I. INTRODUCTION

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Each year, hundreds of millions of meals are provided to older adults in America as part of the Title III-C Nutrition Services Program (NSP). Authorized under the Older Americans Act (OAA), the NSP promotes access to nutritious meals, facilitates social contact, and helps older adults maintain their independence in their homes and communities. Participants who are able to attend congregate meal sites typically receive lunch on one or more weekdays and, at some sites, also receive breakfast, dinner, or weekend meals. Congregate meal sites offer opportunities for participants to socialize with peers and receive other services such as nutrition education, screening, and counseling. These services help older adults identify their general and specific needs related to maintaining their health and managing individual nutrition-related diseases such as heart disease, hypertension, and diabetes.

Participants who are homebound receive nutritious home-delivered meals, typically five days per week. Like congregate meal settings, home-delivered meals offer an opportunity for socializing. Home-delivered meal volunteers might be older adults as well and, in addition to delivering meals, might offer an opening for face-to-face contact or conversation. This allows volunteers to relay important information about participants' well-being and needs to service providers. Homebound participants also receive nutrition education, screening, and counseling as well as non-nutrition services. In this way, the NSP provides homebound participants with a primary access point for many home- and community-based services to help meet their health and nutrition needs.

As part of its responsibility to administer the NSP, the Administration on Aging (AoA) within the Administration for Community Living (ACL) of the U.S. Department of Health and Human Services (DHHS) periodically evaluates its efficiency and effectiveness. In the most recent evaluation from 2015 to 2017 AoA contracted with Mathematica Policy Research to collect information from two main sources: (1) state and local agencies that oversee the program and provide program services, and (2) a national sample of program participants and nonparticipants. The goal of the evaluation was to examine program administration, service delivery, and cost, and to measure the effect of program participation on older adults' food security, socialization, diet quality, and longer-term health outcomes. The findings showed that meal provision has experienced a robust expansion during the past 20 years, with more agencies providing home-delivered meals and more agencies providing congregate meals that offer breakfast, dinner, or weekend meals, in addition to weekday lunches (Mabli et al. 2015). NSP participants generally had more favorable outcomes than nonparticipants, as indicated by lower rates of food insecurity, greater satisfaction with socialization opportunities, and improved diet quality (Mabli et al. 2017). For several outcomes including food security, improvements associated with participating in the program were larger for participants with less income than for those with more income.

Although the NSP serves a critical need among its participants, many older adults continue to face financial hardships and food access limitations. About 15 to 25 percent of participants reported that they experience challenges making ends meet, and 4 to 9 percent reported having to make difficult choices of how to spend scarce household resources, such as whether to buy food or pay for rent, utility bills, or needed medications (Mabli et al. 2017). Although the majority of participants were food secure, 16 percent of congregate meal participants and 23 percent of

home-delivered meal participants had experienced food access limitations during the past month due to lack of money or other resources—they were food insecure. For participants in the lowest income quartile (approximately below the federal poverty level), these percentages were dramatically higher at 32 and 35 percent, respectively.

The evaluation described the level of need among all program participants, but little is known about whether specific groups of participants disproportionately experience these challenges. Learning more about the characteristics and circumstances of these participants can allow AoA and state and local agencies to identify whether there are types of participants the program could target to provide services that help mitigate these challenges. Thus, an objective of this report is to examine how participants' level of need varies by participant characteristics.

The evaluation also found that participants' frequency of program use differed—43 percent of congregate meal participants typically received five or more congregate meals per week and 57 percent received up to four meals per week (Mabli et al. 2017). For home-delivered meal participants, these percentages were 71 and 29, respectively. There was also variation in whether congregate meal participants attended multiple congregate meal sites in a given week and in participants' continued use of the program over the course of a year. Learning more about the characteristics and circumstances of participants who receive meals more often, who use multiple program sites, and who change their use of the program over the course of a year can allow AoA and state and local agencies to identify whether there are specific groups of participants who underuse the program and whom the program could target to increase use. Thus, a second report objective is to assess patterns of participation in the core program services of receiving congregate and home-delivered meals by characteristics and circumstances of participants.

Finally, the evaluation revealed that the ways in which participants met their needs related to food and nutrition, health, and personal care differed. Participants reported having access to a wide array of services provided through the NSP, as well as other services available in the community, yet little is known about the extent to which they use these services. Assessing how participants use other food and non-food assistance programs outside of the NSP and use non-meal services offered through the NSP can help AoA and state and local agencies understand more thoroughly how participants meet their basic needs and even identify to whom to target outreach and referrals to these programs and services. Thus, a third report objective is to assess participation in the Supplemental Nutrition Assistance Program (SNAP) and receipt of emergency food, as well as participation in the Low Income Home Energy Assistance Program (LIHEAP). This objective also entails assessing participation in services at the meal site, at home, or in the community such as nutrition counseling, case management services, transportation services, and personal care services.

### **Organization of the report**

The remaining chapters of this report discuss the methodology used in the analysis and present findings. Chapter II provides an overview of the NSP, the evaluation and its study design, and the data and methodology used in the analysis. Chapter III describes NSP participants' needs and food insecurity, Chapter IV describes patterns of participation in the program, and Chapter V presents use of other programs and NSP services. Chapter VI summarizes findings to inform policy and discusses implications for future research.

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## II. BACKGROUND ON NSP EVALUATION AND OVERVIEW OF DATA AND METHODOLOGY

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This chapter provides an overview of the NSP, summarizes the research objectives of the evaluation, and describes data and methodology used in the analyses presented in this report.

### A. Overview of the Title III-C Nutrition Services Program

The NSP is authorized under Title III of the OAA. Through Title III, State Units on Aging (SUAs) implement a system of coordinated, community-based services targeted to older adults. Title III authorized the provision of nutrition and supportive services, such as meals, nutrition education, transportation, personal and homemaker services, and information and referrals. Under one part of the legislation—Title III-C of the OAA—AoA provides grants to SUAs to support the provision of daily meals and related nutrition services in either group (congregate) or home settings to adults age 60 and older. In fiscal year (FY) 2016, the most recent year in which counts of meals and individuals served are available, 79 million meals were served to 1.6 million people at congregate sites and 145 million home-delivered meals were provided to 868,000 homebound older adults (ACL 2018). OAA Title III-C funding was \$448 million for congregate nutrition services and \$226 million for home-delivered nutrition services in FY 2016 (ACL 2017).

Organizations in the National Aging Network, one of the nation’s largest provider networks of home- and community-based care for older adults and their caregivers, administer the NSP. AoA’s central and regional offices provide overall federal coordination; however, the SUAs and the Area Agencies on Aging (AAAs) both support key aspects of program operations. In turn, local service providers (LSPs) typically provide the direct nutrition services. Congregate meals and supportive services are provided at LSPs’ meal sites (such as senior centers, religious facilities, and public or low-income housing facilities). Home-delivered meals are provided to homebound individuals through the congregate meal sites, affiliated central kitchens, or nonaffiliated food service organizations.

Adults age 60 and older, and their spouses of any age, may participate in the NSP’s congregate meal program.<sup>1</sup> For home-delivered meals, people who are homebound because of disability, illness, or isolation and are age 60 and older are eligible, as are their spouses of any age. Disabled people younger than age 60 living with older adults are also eligible.

The NSP is not an entitlement program. It also does not have a financial means test, but the program specifically targets older adults with the greatest economic or social need, with special attention given to low-income older adults, minorities, those living in rural areas, those with limited English proficiency, and those at risk of institutional care. Payment for meals is not mandatory, but participants are encouraged to make a voluntary contribution toward the total

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<sup>1</sup> The members of the following groups are also eligible to receive congregate meals: disabled people younger than age 60 who reside in housing facilities occupied primarily by older adults where congregate meals are served; disabled people who reside at home with, and accompany, people age 60 and older to meal sites; and nutrition service volunteers. The evaluation did not collect information from members of these groups.

cost of the meal. However, within site capacity, participants' inability or unwillingness to contribute does not deny them meals or other services.

LSPs must provide congregate and home-delivered meals that comply with the most recent *Dietary Guidelines for Americans* (“*Dietary Guidelines*”; DHHS and U.S. Department of Agriculture 2015) and provide a minimum of one-third of the Dietary Reference Intakes (DRIs) established by the Food and Nutrition Board of the Institute of Medicine of the National Academy of Sciences (Institute of Medicine 2006). In addition to providing meals, LSPs also offer nutrition education, nutrition screening and assessment, and nutrition counseling if appropriate.<sup>2</sup>

## **B. Nutrition Services Program evaluation objectives**

The objectives of the Title III-C NSP evaluation included the following:

- Provide information to support program planning, including an analysis of program processes (referred to as the *process study*)
- Develop information about program efficiency and cost issues (referred to as the *cost study*)
- Assess program effectiveness, as measured by the program's effects on a variety of important participant outcomes, including diet quality, socialization opportunities, health outcomes, and—ultimately—helping older adults avoid institutionalization (referred to as the *outcomes evaluation*)

Separate reports present findings from the process study (Mabli et al. 2015), the cost study (Ziegler et al. 2015), and the outcomes evaluation (Mabli et al. 2017; Mabli et al. 2018). The process study report used data collected from SUAs, AAAs, and LSPs to assess the ways in which the program operates to serve older adults. The process study analyzed NSP structure, administration, staffing, coordination, processes, and service delivery. It also described the nutrition and supportive services that agencies offer; differences in participant access to services, prioritization of services, and the use of waiting lists; and program resources.

The cost study report (Ziegler et al. 2015) estimated the average costs of a congregate and a home-delivered meal provided under the NSP and assessed whether these average costs vary by meal preparation method or by other program characteristics. The cost study report also examined program efficiency by generating unit cost estimates for individual LSPs and examining cost variation within the program by cost component, meal preparation method, program size, and other program characteristics.

The first outcomes evaluation report (Mabli et al. 2017) described NSP participants' characteristics, health status, mobility, eating behaviors, diet quality, and other characteristics; described their experiences with and impressions of the NSP and their valuation of meals and supportive services received through the program; and estimated the impact of NSP meals and related services on participants' nutrition, food security, and diet quality. The second outcomes evaluation report (Mabli et al. 2018) described participants' health and health care utilization and

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<sup>2</sup> Additional LSP requirements are available in Section 339 of the OAA.

examined overall wellness measures using longer-term outcomes related to health and avoidance of institutionalization based on Medicare claims data.

### **C. Evaluation sampling design and data collection**

The evaluation used a multistage clustered sample design. The stages of sampling included the following:

1. AAAs
2. LSPs within AAAs
3. Congregate meal sites and home-delivered meal distribution locations within LSPs
4. Home-delivered meal routes within home-delivered meal distribution locations
5. Congregate meal participants within each congregate meal site and home-delivered meal participants within each home-delivered meal route<sup>3</sup>

The research team conducted two surveys—one from October 2015 to April 2016 and another from November 2016 to March 2017. Data collection for the 2015–2016 survey spanned one week for each randomly selected congregate meal site and home-delivered meal route. In congregate meals sites, field staff attended the main congregate meal (usually lunch) on the first day meals were provided during the week. They randomly sampled and interviewed congregate meal participants. Similarly, on the first day of meal provision for each home-delivered meal distribution location, program staff provided a list of all home-delivered meal participants for the sampled route, participants were randomly sampled, and field staff interviewed participants in homes or another convenient location. Approximately 12 months after the first survey, the research team conducted a second survey by phone of those congregate and home-delivered meal participants who had responded to the first survey.

The 2015–2016 outcomes survey collected information on a comprehensive set of topic areas including demographic characteristics, food security, health insurance coverage, health status and depression, and loneliness. In addition, the survey asked all respondents about their NSP participation history, and asked congregate and home-delivered meal participants about the types of services they received, their impressions of the program and services, and monetary contributions for program meals. The 2016–2017 outcomes survey assessed program participation patterns between the 2015–2016 and 2016–2017 interviews. It collected information on whether respondents who had received congregate or home-delivered meals at the time of the 2015–2016 survey were still receiving congregate or home-delivered meals about 12 months later. In addition, the survey asked all respondents how many months in the past year they had received meals and, for those who reported receiving meals more or less frequently than they had 12 months earlier, the reasons for the change. The response rates for congregate and home-delivered meal participants were 76.1 and 54.1 percent for the 2015–2016 survey and 73.3 and 70.1 percent for the 2016–2017 survey.

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<sup>3</sup> In addition, the research team obtained a matched sample of congregate and home-delivered meal nonparticipants. Data from nonparticipants are not used in this report, but details about nonparticipant data collection are available in Mabli et al. (2017).

#### **D. Analytic methods, weights, and item nonresponse**

This report presents findings from descriptive analyses of the NSP evaluation data. Tables describe NSP participants' needs, frequency of participation, and service provision, and present separate estimates for congregate meal participants and home-delivered meal participants. Tables present statistics based on the full samples of congregate and home-delivered meal participants and for subgroups defined by participant characteristics. Additionally, tables in Chapter V that describe program participation and service provision also contain estimates based on subgroups defined using LSP-level data on agency characteristics merged onto participant-level records. Chapters III, IV, and V focus on differences in estimates across participant characteristic subgroups of at least five percentage points in order to limit the discussion to more meaningful differences.

Analysis weights allow one to compute unbiased estimates based on sample survey responses from the study population. Weights take into account both the probability of selection into the sample and the differential response patterns that may exist in the respondent sample. Weights for the 2015–2016 and 2016–2017 surveys were constructed separately for congregate and home-delivered meal participants. Based on weighted data, the findings for congregate and home-delivered meal participants in this report are nationally representative of the population of congregate and home-delivered meal participants at the time of the 2015–2016 interviews. Details of the weight construction process are available in Appendix A of Mabli et al. (2017) for the 2015–2016 weights and in Appendix A of Mabli et al. (2018) for the 2016–2017 weights.

Although interviewers administered the participant surveys, respondents could respond “don’t know” or refuse to answer questions. The percentages and estimates presented in this report are based on responses that exclude both types of missing data. As a result, those estimates might be subject to item nonresponse bias. Item nonresponse bias occurs when individuals who respond to a question differ in meaningful ways from those who do not respond. However, this was not a serious problem for most questions in the 2015–2016 and 2016–2017 participant surveys, because all of the estimates presented in the tables either had no item nonresponse or had a particularly low percentage of item nonresponse, which was defined as at least an 80 percent response rate.

Some of the subgroups measuring agency characteristics defined using the LSP agency survey were based on variables that had higher item nonresponse, however. The LSP survey consisted of two parts: an LSP web survey and a separate editable PDF form that respondents completed and returned electronically. The web survey contained the majority of the questions, including those that a respondent could likely answer without referring to other data sources, such as organizational structure. The editable PDF (referred to as a “fax-back” form) included fewer items, which contained questions for which the respondent likely had to look up data from sources such as financial reports on program expenditures. After the research team merged the LSP information onto the participant-level data file, item nonresponse ranged from 1 to 16 percent for the LSP web survey variables and 22 to 37 percent for the fax-back form variables measuring the number of full-time equivalents and agency expenditures. Because excluding observations with missing data can lead to biased findings if the characteristics of LSPs with nonmissing information differ from those with missing information, the research team imputed missing values for these variables.

The research team used a tiered approach to impute variables with missing information, depending on the extent of missingness for each variable. For variables with relatively low missing rates (those with missing rates ranging from 0 to 1.5 percent), missing data were imputed using simple random imputations based on the empirical distributions of variables. Variables with relatively higher rates of nonresponse were imputed using more advanced imputation procedures—predictive mean matching for continuous variables and logistic regression imputation for binary variables. The research team used Stata’s multiple imputation package (`mi impute chained`) to jointly estimate the imputation model for these variables. This suite of statistical commands imputes missing values of multiple variables iteratively by using a sequence of imputation equations.

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### **III. NSP PARTICIPANTS' NEEDS AND TRADE-OFFS IN MAKING ENDS MEET**

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This chapter examines whether specific groups of congregate and home-delivered meal participants disproportionately experience challenges making ends meet. It presents information on the extent to which participants experienced hardships and the trade-offs participants made between purchasing food and other basic needs such as rent, utilities, and medications. It also describes how rates of food insecurity varied by participants' characteristics and circumstances.

#### **A. Characteristics of participants**

Congregate and home-delivered meal participants were similar in terms of gender, veteran status, and presence of others living in the household, but compared with congregate meal participants, home-delivered meal participants, on average, were older and had less education. Fifty-nine percent of congregate and 79 percent of home-delivered meal participants were age 75 and older (Table III.1). The percentage of participants who had not completed high school also differed (24 percent for congregate meal participants versus 40 percent for home-delivered meal participants). More than two-thirds of congregate and home-delivered meal participants were women. The percentage of participants who were married was similar across the two programs, although 52 percent of home-delivered meal participants were widowed compared with 47 percent of congregate meal participants. Many participants lived alone (60 percent of congregate meal participants and 59 percent of home-delivered meal participants). Twenty-eight percent of congregate meal participants and 25 percent of home-delivered meal participants resided in rural areas.

Participants in each program were largely non-Hispanic white individuals, but a sizable percentage of participants were members of racial and ethnic minority groups. Non-Hispanic blacks constituted approximately 13 percent of congregate meal participants and 17 percent of home-delivered meal participants (Table III.1). Hispanics accounted for another 14 percent and 9 percent, respectively, of participants in the two programs.

Although the OAA prohibits financial means tests for participation in the NSP, most participants were poor or near poor. Thirty percent of congregate meal participants and 36 percent of home-delivered meal participants had annual household incomes below 100 percent of the DHHS federal poverty guidelines (Table III.1). (For a one-person household, this corresponds to \$11,770 based on the 2015 poverty guidelines, which corresponds to the initial year in which the survey data were collected.) Most of the rest had annual household incomes between 100 and 200 percent of the poverty guidelines. Only about one-quarter of congregate and 18 percent of home-delivered meal participants had annual household incomes above 200 percent of the poverty guidelines.

Reflecting their younger age and better health, nearly 20 percent of congregate meal participants had income from employment (full- or part-time work) compared with just 5 percent of home-delivered meal participants.

**Table III.1. Characteristics of participants**

Characteristic	Congregate meal participants (percentage)	Home-delivered meal participants (percentage)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>
Age		
74 and younger	41.2	20.9
75 to 84	41.2	36.0
85 and older	17.6	43.1
Gender		
Male	33.1	31.5
Female	66.9	68.5
Highest grade level completed		
Completed less than high school	24.3	40.4
High school graduate, GED, or equivalent	75.7	59.6
Marital status		
Married or living with partner	24.9	24.0
Widowed	46.5	52.0
Divorced, separated, or never married	28.6	24.0
Presence of other people living in household		
Lives alone	60.2	59.1
Lives with others	39.8	40.9
Race/ethnicity		
Non-Hispanic black	13.1	16.9
Non-Hispanic white	64.7	68.7
Non-Hispanic other	8.3	5.2
Hispanic	13.9	9.0
Employment status		
Employed	16.9	5.0
Not employed	83.1	95.0
Monthly income-to-poverty ratio		
0 to 100	30.3	36.1
101 to 200	46.6	46.2
201 and above	23.1	17.7
Census region		
Midwest	22.4	28.7
Northeast	26.4	22.0
South	17.7	22.4
West	33.5	26.9
Urbanicity		
Urban	72.3	74.9
Rural	27.7	25.1

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

## B. Experiencing challenges trying to make ends meet

Although many participants reported that their income is sufficient to take care of their needs, a nontrivial percentage reported facing financial hardships. About 15 percent of congregate meal participants and 23 percent of home-delivered meal participants reported that they experience challenges making ends meet (Table III.2). The percentage who reported their incomes do not cover their needs was lower for older participants and for participants with higher incomes. About 21 percent of congregate meal participants age 74 and younger experienced challenges, compared with 12 percent of participants ages 75 to 84 and 7 percent of

participants age 85 and older. The differences by age were similar for home-delivered meal participants, with relatively younger participants almost three times as likely to experience challenges relative to older participants (40 versus 15 percent). Similarly, the percentage was larger for those in poorer households. Almost 35 percent of congregate meal participants with household incomes below 100 percent of the DHHS federal poverty guidelines faced hardships, compared with 7 percent for those with incomes above 200 percent of poverty (Table III.2); for home-delivered meal participants, these percentages were 33 and 12 percent, respectively.

**Table III.2. Percentage of participants reporting challenges making ends meet, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>15.3</b>	<b>22.6</b>
Age		
74 and younger	21.2	39.5
75 to 84	12.1	21.2
85 and older	7.0	15.2
Gender		
Male	13.1	19.6
Female	16.4	24.1
Highest grade level completed		
Completed less than high school	14.3	24.6
High school graduate, GED, or equivalent	15.6	21.1
Marital status		
Married or living with partner	9.9	21.3
Widowed	11.6	18.7
Divorced, separated, or never married	24.5	33.6
Presence of other people living in household		
Lives alone	17.1	20.8
Lives with others	12.8	25.2
Race/ethnicity		
Non-Hispanic black	12.2	44.8
Non-Hispanic white	10.9	16.5
Non-Hispanic other	45.7	NA
Hispanic	21.0	NA
Employment status		
Employed	5.4	NA
Not employed	17.3	20.8
Monthly income-to-poverty ratio		
0 to 100	34.8	32.6
101 to 200	10.4	20.4
201 and above	6.7	11.9
Census region		
Midwest	16.1	27.4
Northeast	10.7	19.4
South	10.7	28.8
West	21.2	15.9
Urbanicity		
Urban	18.4	24.3
Rural	7.0	17.7

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

The percentage of participants who experienced challenges making ends meet was larger for those living in urban areas, relative to rural areas, and those who were divorced, separated, or never married, relative to participants who were married or were living with their partner. About 18 percent of congregate meal participants living in an urban area faced hardships, compared with 7 percent among those living in a rural area (Table III.2). The difference was smaller, yet still sizable, for home-delivered meal participants (24 versus 18 percent). Participants who were divorced, separated, or never married had the highest rates (25 percent among congregate meal participants) compared with married participants or those living with partners (10 percent).

The relationship between the prevalence of challenges making ends meet and participant characteristics differed for congregate and home-delivered meal participants for several characteristics. Challenges were most common in the West for congregate meal participants but were least common in the same region for home-delivered meal participants. Challenges also were much more common for non-Hispanic black participants than for non-Hispanic white participants receiving home-delivered meals (45 versus 17 percent), but were not appreciably different for the two groups among congregate meal participants (12 versus 11 percent).

### **C. Making trade-offs between purchasing food and other basic needs**

Some participants faced trade-offs in purchasing food each month. For congregate meal participants, the most common trade-off was having to choose between buying food and buying medications (7 percent) (Table III.3). A similar percentage of congregate meal participants made trade-offs between buying food and paying utility bills (7 percent), and a smaller percentage made trade-offs between buying food and paying rent (4 percent).

Similar to experiencing financial hardships more broadly, the percentage of congregate meal participants who made trade-offs between purchasing food and other basic needs was largest for participants age 74 and younger and lower for participants in the older age categories (Table III.3). In fact, few participants age 85 and older reported making these types of trade-offs. Choosing between buying food and other basic needs was much more common among congregate meal participants in poorer households than among those with greater income. About 13 to 18 percent of congregate meal participants with household incomes below 100 percent of the DHHS federal poverty guidelines made trade-offs, compared with 1 to 8 percent for those with higher incomes. Making these choices was also higher for Hispanics (15 to 16 percent) than for non-Hispanic whites and blacks (0 to 7 percent). Finally, like experiencing challenges making ends meet, the prevalence of trade-offs associated with buying food generally was much higher in the West than in the other regions.

Home-delivered meal participants also made trade-offs between purchasing food and other basic needs. The most common was choosing between buying food and paying utility bills (9 percent), with smaller percentages of participants making trade-offs between buying food and buying medications (4 percent) and between buying food and paying rent (5 percent) (Table III.4).

**Table III.3. Percentage of congregate meal participants reporting making trade-offs in purchasing food in the past month, by participant characteristics**

Characteristic	Buying food and buying medications	Buying food and paying utility bills	Buying food and paying rent
<b>Total</b>	<b>7.0</b>	<b>6.7</b>	<b>3.8</b>
Age			
74 and younger	10.0	10.1	6.5
75 to 84	6.4	4.9	2.1
85 and older	0.0	1.4	0.9
Gender			
Male	4.8	3.7	3.7
Female	8.0	8.1	3.9
Highest grade level completed			
Completed less than high school	6.3	7.9	3.6
High school graduate, GED, or equivalent	7.1	6.3	3.9
Marital status			
Married or living with partner	11.6	9.5	9.5
Widowed	3.7	2.3	1.1
Divorced, separated, or never married	7.0	10.8	3.1
Presence of other people living in household			
Lives alone	5.9	5.9	2.4
Lives with others	8.7	7.9	6.1
Race/ethnicity			
Non-Hispanic black	5.4	7.2	0.0
Non-Hispanic white	3.3	3.2	1.5
Non-Hispanic other	24.9	20.9	11.3
Hispanic	15.7	14.5	15.6
Employment status			
Employed	2.7	2.2	1.7
Not employed	7.8	7.5	4.3
Monthly income-to-poverty ratio			
0 to 100	12.8	18.4	12.7
101 to 200	4.7	1.3	0.9
201 and above	8.2	4.7	0.9
Census region			
Midwest	6.4	4.5	3.8
Northeast	4.7	8.2	0.9
South	4.2	5.4	2.3
West	10.6	7.2	7.2
Urbanicity			
Urban	7.9	7.7	4.8
Rural	4.3	3.7	1.2

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

**Table III.4. Percentage of home-delivered meal participants reporting making trade-offs in purchasing food in the past month**

Characteristic	Buying food and buying medications	Buying food and paying utility bills	Buying food and paying rent
<b>Total</b>	<b>3.9</b>	<b>8.8</b>	<b>4.9</b>
Age			
74 and younger	10.5	18.2	12.2
75 to 84	2.4	4.9	2.1
85 and older	1.9	7.1	3.6
Gender			
Male	3.6	7.5	2.6
Female	4.2	9.4	6.1
Highest grade level completed			
Completed less than high school	3.3	10.8	6.1
High school graduate, GED, or equivalent	4.4	7.2	4.1
Marital status			
Married or living with partner	1.9	5.7	2.5
Widowed	4.0	8.8	5.4
Divorced, separated, or never married	6.0	11.8	6.2
Presence of other people living in household			
Lives alone	4.4	8.2	5.3
Lives with others	3.3	9.5	4.5
Race/ethnicity			
Non-Hispanic black	2.3	22.6	10.2
Non-Hispanic white	4.7	6.6	3.8
Non-Hispanic other	NA	NA	NA
Hispanic	NA	NA	NA
Employment status			
Employed	NA	NA	NA
Not employed	4.2	8.3	5.3
Monthly income-to-poverty ratio			
0 to 100	5.2	8.5	4.7
101 to 200	3.7	8.4	4.0
201 and above	4.0	7.7	2.1
Census region			
Midwest	5.1	14.3	9.6
Northeast	2.2	4.7	2.7
South	5.5	5.5	2.0
West	3.2	9.4	4.5
Urbanicity			
Urban	2.8	7.7	4.6
Rural	7.2	11.7	5.9

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

As was the case for congregate meal participants, the prevalence of making trade-offs among home-delivered meal participants was highest for participants age 74 and younger than for older participants. For example, 18 percent of participants age 74 and younger chose between buying food and paying utility bills, compared with 7 percent of those age 85 and older (Table III.4). There was much less of a difference by income for home-delivered meal participants than for congregate meal participants.

#### **D. Experiencing food insecurity**

Food security is having access at all times to enough food for an active, healthy life for all household members (Coleman-Jensen et al. 2015). Although the majority of NSP participants were food secure, 16 percent of congregate meal participants and 23 percent of home-delivered meal participants had experienced food access limitations during the past 30 days due to lack of money or other resources—they were food insecure (Table III.5).<sup>4</sup>

The percentages of congregate and home-delivered meal participants who were food insecure were lower for older participants. For both groups, participants age 74 and younger experienced the highest rates of food insecurity (24 percent for congregate and 44 percent for home-delivered meal participants), and participants age 85 and older experienced the lowest rates (5 and 16 percent, respectively) (Table III.5).

Although the food insecurity rate was only slightly higher for congregate meal participants who had completed less than high school than it was for those who had completed high school, the rate was nearly twice as high for home-delivered meal participants who had not finished high school than it was for those who had (31 versus 17 percent) (Table III.5). The patterns of food insecurity by income as a percentage of poverty correspond with conventional wisdom. The rate was nearly six times higher for congregate meal participants with incomes below 100 percent of poverty than for those with income equal to at least 201 percent of poverty (33 versus 6 percent). This rate was three to four times higher for home-delivered meal participants with less income than for those with more income. Food insecurity was most common among congregate meal participants living in urban areas, relative to rural areas (20 versus 8 percent), with only a small difference for home-delivered meal participants (24 versus 20 percent). Similar to the prevalence of experiencing challenges in making ends meet, food insecurity rates were highest for congregate meal participants living in the West and lowest for home-delivered meal participants living in the Northeast and West.

The prevalence of food insecurity differed by race and ethnicity as well. Among congregate meal participants, the rate was more than twice as large for Hispanic participants than for non-Hispanic black or white participants (30 versus 13 percent). The rate was largest among non-Hispanic participants who were Asian, American Indian, or other races (listed as “non-Hispanic other” in the table) (31 percent). Among home-delivered meal participants, non-Hispanic black participants were more than twice as likely to be food insecure than were non-Hispanic participants of other races (38 versus 15–16 percent).

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<sup>4</sup> The research team used the six-item food security module (Bickel et al. 2000) to create a binary variable indicating whether an individual lived in a household that was food insecure in the past 30 days.

**Table III.5. Percentage of participants who experienced food insecurity, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>16.4</b>	<b>22.5</b>
Age		
74 and younger	24.4	44.1
75 to 84	13.4	17.7
85 and older	4.8	15.9
Gender		
Male	22.4	17.6
Female	13.5	24.7
Highest grade level completed		
Completed less than high school	17.8	30.8
High school graduate, GED, or equivalent	16.0	16.9
Marital status		
Married or living with partner	15.0	18.5
Widowed	9.7	24.8
Divorced, separated, or never married	28.2	21.9
Presence of other people living in household		
Lives alone	17.3	20.4
Lives with others	15.2	25.6
Race/ethnicity		
Non-Hispanic black	12.9	37.6
Non-Hispanic white	12.5	16.0
Non-Hispanic other	31.1	14.7
Hispanic	29.8	NA
Employment status		
Employed	12.3	NA
Not employed	17.2	22.7
Monthly income-to-poverty ratio		
0 to 100	32.6	37.8
101 to 200	14.5	16.7
201 and above	5.9	10.6
Census region		
Midwest	14.7	27.2
Northeast	9.4	18.4
South	18.0	23.6
West	22.3	19.8
Urbanicity		
Urban	19.8	23.5
Rural	7.6	19.5

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

Table III.6 examines whether participants experienced a particularly severe level of food insecurity, referred to as “very low food security.” The rate of very low food security was higher for home-delivered meal participants than for congregate meal participants (7 percent versus 4 percent). Like food insecurity, the percentages of congregate and home-delivered meal participants who experienced very low food security were lower for older participants. Participants age 74 and younger experienced the highest rates (8 percent for congregate and 15 percent for home-delivered meal participants), and participants age 85 and older experienced the



lowest rates (slightly greater than zero and 6 percent, respectively) (Table III.6). Like food insecurity, the rate of very low food security was higher for congregate meal participants with incomes below 100 percent of poverty than for those with income equal to at least 201 percent of poverty (9 versus 3 percent). The same was true for home-delivered meal participants (7 versus 2 percent).

**Table III.6. Percentage of participants who experienced very low food security, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>4.3</b>	<b>6.7</b>
Age		
74 and younger	8.1	15.2
75 to 84	2.3	2.4
85 and older	0.1	6.2
Gender		
Male	2.8	5.8
Female	5.0	7.1
Highest grade level completed		
Completed less than high school	1.6	5.9
High school graduate, GED, or equivalent	5.2	7.2
Marital status		
Married or living with partner	5.3	4.6
Widowed	1.6	8.6
Divorced, separated, or never married	7.8	4.6
Presence of other people living in household		
Lives alone	4.9	7.7
Lives with others	3.4	5.5
Race/ethnicity		
Non-Hispanic black	3.2	19.1
Non-Hispanic white	3.2	4.5
Non-Hispanic other	18.3	4.5
Hispanic	2.2	NA
Employment status		
Employed	3.2	NA
Not employed	4.5	7.2
Monthly income-to-poverty ratio		
0 to 100	9.0	6.7
101 to 200	2.6	6.3
201 and above	3.4	1.6
Census region		
Midwest	5.2	15.0
Northeast	6.7	2.9
South	2.8	5.1
West	2.6	2.1
Urbanicity		
Urban	5.3	7.8
Rural	1.7	3.3

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

The prevalence of very low food security differed by race. Among congregate meal participants, the rate was largest among non-Hispanic participants who were Asian, American Indian, or other races (18 percent). Among home-delivered meal participants, the rate was largest among non-Hispanic black participants (19 percent). The rates of very low food security were generally similar across regions for congregate meal participants. For home-delivered meal participants, however, the Midwest had the highest rate of very low food security (15 percent), as it did for food insecurity.

## IV. PATTERNS OF PARTICIPATION IN THE NSP

This chapter examines how specific groups of congregate and home-delivered meal participants use the NSP. It presents information on how the frequency of program use and the use of multiple meal sites varied by participants' characteristics and circumstances. Additionally, it describes whether older adults who participated in the NSP in 2015–2016 continued to participate over the next year and, if so, whether the extent to which they used the program changed. It also describes how these patterns of participation differed by participants' characteristics and circumstances

### A. Frequency of NSP participation among congregate meal participants in 2015–2016

Congregate meal participants received meals frequently. Forty-three percent received five or more meals per week, 64 percent received four or more meals per week, and 82 percent received three or more meals per week (Table IV.1). Most congregate meal participants (79 percent) attended a single site for meals, while 12 percent attended two meal sites.

**Table IV.1. Frequency of participation in congregate meal program**

Participation frequency	Congregate meal participants (percentage)
Number of days in a typical week participant ate a meal at the congregate meal site	
1	6.4
2	12.0
3	18.1
4	20.4
5	42.1
6	0.0
7	1.0
Number of congregate sites the participant usually visits for meals	
1	79.4
2	11.8
3 or more	8.9

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

The percentage of congregate meal participants who received four or more meals per week was higher for older participants. Sixty-nine percent of participants age 85 and older ate at a meal site at least four days per week compared with 61 percent of participants age 74 and younger (Table IV.2). Male congregate meal participants were more likely to participate than female participants (70 versus 60 percent) as were participants who were divorced, separated, or never married compared with those who were married or living with their partner (75 versus 57 percent) and those who lived alone compared with participants who lived with others (66 versus 60 percent).

**Table IV.2. Percentage of congregate meal participants who ate at a meal site four or more days per week, by participant characteristics**

Characteristic	Congregate meal participants
<b>Total</b>	<b>63.5</b>
Age	
74 and younger	61.0
75 to 84	63.9
85 and older	68.6
Gender	
Male	70.2
Female	60.3
Highest grade level completed	
Completed less than high school	71.1
High school graduate, GED, or equivalent	61.1
Marital status	
Married or living with partner	56.6
Widowed	61.2
Divorced, separated, or never married	74.5
Presence of other people living in household	
Live alone	66.1
Lives with others	60.1
Race/ethnicity	
Non-Hispanic black	53.5
Non-Hispanic white	60.8
Non-Hispanic other	80.1
Hispanic	76.4
Employment status	
Employed	50.2
Not employed	66.1
Monthly income-to-poverty ratio	
0 to 100	74.9
101 to 200	58.4
201 and above	64.5
Census region	
Midwest	55.3
Northeast	65.0
South	67.4
West	65.9
Urbanicity	
Urban	66.5
Rural	55.7

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

The likelihood of receiving more meals per week differed by race and ethnicity as well. The percentages of participants who ate at the meal site at least four times per week were largest among non-Hispanic participants who were Asian, American Indian, or other races (listed as non-Hispanic other in the table) and Hispanic participants (80 and 76 percent, respectively), than for non-Hispanic black or white participants (54 and 61 percent, respectively).

Frequency of receipt of meals also differed by education, income, and employment status. Congregate meal participants who had not completed high school were more likely to participate at least four days per week than those who had completed high school (71 versus 61 percent). Poorer participants used the program more frequently: 75 percent of participants with household incomes below 100 percent of poverty had eaten at a meal site at least four times per week compared with 58 and 65 percent of those with income between 101 and 200 percent of poverty and those with income at least 201 percent of poverty, respectively. There were also sizable differences in use between participants who were not employed and those who were employed (66 versus 50 percent).

There were few differences by geographic region. Congregate meal participants living in the Northeast, South, and West had similar frequency of use, ranging from 65 to 67 percent; those living in the Midwest, however, had noticeably lower levels of use with 55 percent eating at meal sites at least four days per week (Table IV.2). Participants living in urban areas used the program more frequently than those in rural areas (67 versus 56 percent).

Relative to older participants, congregate meal participants age 74 and younger were less likely to eat at a meal site at least four times per week, although they were more likely to visit multiple meal sites. Twenty-five percent of participants age 74 and younger used more than one meal site, compared with 17 to 18 percent of older participants (Table IV.3). Male participants were more likely than female participants to use multiple meal sites (29 versus 17 percent); other characteristics associated with using multiple sites included living alone rather than with others (23 versus 17 percent) and being Hispanic rather than non-Hispanic black or white (29 versus 17 and 19 percent, respectively).

Not only were poorer participants more likely than participants with higher income to visit meal sites at least four times per week, they were more likely to visit multiple meal sites as well. About 31 percent of participants with household incomes below 100 percent of poverty ate at multiple meal sites compared with 17 percent of those with higher incomes (Table IV.3). Visiting multiple sites was also related to geography. Participants who lived in the West were nearly twice as likely as participants living in other regions to visit multiple sites (32 percent versus 11–17 percent), as were those living in urban areas, compared with those in rural areas (23 versus 14 percent).

**Table IV.3. Percentage of congregate meal participants who usually visit more than one congregate site for meals, by participant characteristics**

Characteristic	Congregate meal participants
<b>Total</b>	<b>20.6</b>
Age	
74 and younger	25.0
75 to 84	17.4
85 and older	17.8
Gender	
Male	28.7
Female	16.7
Highest grade level completed	
Completed less than high school	18.6
High school graduate, GED, or equivalent	21.3
Marital status	
Married or living with partner	21.7
Widowed	19.0
Divorced, separated, or never married	22.0
Presence of other people living in household	
Live alone	22.9
Lives with others	17.3
Race/ethnicity	
Non-Hispanic black	17.4
Non-Hispanic white	18.9
Non-Hispanic other	26.4
Hispanic	28.9
Employment status	
Employed	16.5
Not employed	21.6
Monthly income-to-poverty ratio	
0 to 100	31.4
101 to 200	16.6
201 and above	17.2
Census region	
Midwest	17.0
Northeast	16.5
South	10.7
West	31.5
Urbanicity	
Urban	23.1
Rural	14.0

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

## B. Frequency of NSP participation among home-delivered meal participants in 2015–2016

Like congregate meal participants, home-delivered meal participants also received meals frequently. Seventy-one percent received five or more meals per week, 76 percent received four or more meals per week, and 85 percent received three or more meals per week (Table IV.4).<sup>5</sup> Nearly all home-delivered meal participants (97 percent) received meals from a single site.

**Table IV.4. Frequency of participation in home-delivered meal program**

Participation frequency	Home-delivered meal participants (percentage)
Number of days in a typical week participant received a delivered meal from the nutrition program	
1	14.3
2	0.7
3	8.4
4	5.7
5	69.2
6	0.0
7	1.4
Number of home-delivered meal sites that deliver meals to the participant	
1	97.4
2	2.5
3 or more	0.1

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

Unlike congregate meal participants, whose likelihood of eating program meals more often was higher for older participants, home-delivered meal participants were less likely to receive program meals five or more days per week the older they were. Seventy-seven percent of participants age 74 and younger received a meal at least five days per week compared with 66 percent of participants age 85 and older (Table IV.5). Also unlike congregate meal participants, home-delivered meal participants who lived with others used the program more frequently than those who lived alone (77 versus 68 percent), as did those who lived in rural areas compared with those in urban areas (80 versus 68 percent).

Similar to congregate meal participants, home-delivered meal participants who had not completed high school were more likely to receive meals at least five days per week than those who had completed high school (77 versus 67 percent). Participants in the South and West were also more likely to do so, relative to participants in other geographic regions (83–85 versus 54–63 percent).

<sup>5</sup> The outcomes survey did not collect information on the number of meals provided in each delivery. Based on information collected in the process survey of local service providers, however, an overwhelming majority (80 percent) of agencies provide a single meal at each delivery (Mabli et al. 2015).

**Table IV.5. Percentage of home-delivered meal participants who received program meals five or more days per week, by participant characteristics**

Characteristic	Home-delivered meal participants
<b>Total</b>	<b>70.7</b>
Age	
74 and younger	76.6
75 to 84	73.0
85 and older	66.1
Gender	
Male	70.6
Female	70.8
Highest grade level completed	
Completed less than high school	76.9
High school graduate, GED, or equivalent	66.6
Marital status	
Married or living with partner	73.1
Widowed	65.2
Divorced, separated, or never married	80.1
Presence of other people living in household	
Lives alone	68.0
Lives with others	76.5
Race/ethnicity	
Non-Hispanic black	35.1
Non-Hispanic white	75.8
Non-Hispanic other	91.8
Hispanic	NA
Employment status	
Employed	NA
Not employed	71.3
Monthly income-to-poverty ratio	
0 to 100	75.7
101 to 200	69.2
201 and above	78.6
Census region	
Midwest	54.2
Northeast	63.0
South	85.4
West	82.6
Urbanicity	
Urban	67.7
Rural	79.8

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

### C. Patterns of congregate meal participation over the course of a year

Whereas the previous two sections described the frequency of participating in the NSP at the time of the 2015–2016 interview, this section assesses changes in participation over the following year. The rate of continued participation in the NSP among congregate meal participants was high (Table IV.6). Ninety-four percent of older adults receiving congregate meals at the time of the 2015–2016 interview participated about 12 months later at the time of



the 2016–2017 interview (Table IV.6). Smaller, yet still sizable, percentages of older adults participated in at least 6 of the next 12 months (90 percent) and even in each of the next 12 months (71 percent). Thus, the rate of retention in the NSP among congregate meal participants was high in terms of whether people continued to participate and the number of months in which they participated.

Very few characteristics were associated with receiving congregate meals 12 months after the 2015–2016 interview (Table IV.6). Participation was more likely among individuals who were married or living with their partner than among those who were divorced, separated, or never married (97 versus 92 percent) and if they lived in the Northeast rather than in the West (98 versus 90 percent). Overall, however, there was little variation in the characteristics of congregate meal participants who continued to participate in the NSP about 12 months after the initial interview.

There were greater differences in the percentage of participants who continued to receive congregate meals for at least six months of the next year. Participants were more likely to participate in at least six months if they were ages 84 and younger, relative to older participants, (90–93 percent versus 84 percent); if they had completed less than high school, relative to those who completed high school (94 versus 89 percent); and if they had less income (94 percent for those with income below 100 percent of poverty compared with 88 percent for those with income at or above 201 percent of poverty) (Table IV.6).

Although differences also existed in the percentage of participants who continued to receive congregate meals for each of the next 12 months, the characteristics associated with continuing to receive meals over the next year were different from those for participants who continued to receive meals in at least 6 months of the year. Men were more likely than women to participate in every month (76 versus 69 percent), as were those who lived alone rather than with others (74 versus 68 percent) and those who lived in a rural, rather than urban, area (77 versus 69 percent). Although having less income was associated with participating in at least 6 months of the year, having more income was associated with participating in every month: 76 percent for those with income at or above 201 percent of poverty participated in every month compared with around 70 percent with less income. Similar to receiving weekly meals, participants who lived in the Midwest were less likely to participate in at least 6 months and participate in every month compared with those who lived in the Northeast, South, and West (84 versus 91–94 percent for 6 months and 62 versus 72–76 percent for every month).

**Table IV.6. Percentages of congregate meal participants who continued to participate in the 12 months after the 2015–2016 interview**

Characteristic	Congregate meal participant in the 2015–2016 interview who continued to be a participant 12 months later	Congregate meal participant in the 2015–2016 interview who participated in at least 6 of the next 12 months	Congregate meal participant in the 2015–2016 interview who participated in all of the next 12 months
<b>Total</b>	<b>94.0</b>	<b>90.3</b>	<b>71.2</b>
Age			
74 and younger	94.4	90.0	68.3
75 to 84	92.9	93.2	74.3
85 and older	96.0	83.6	70.6
Gender			
Male	94.5	92.3	75.5
Female	93.8	89.5	69.3
Highest grade level completed			
Completed less than high school	93.9	94.0	72.2
High school graduate, GED, or equivalent	94.0	89.2	70.9
Marital status			
Married or living with partner	96.8	95.0	67.9
Widowed	93.3	87.5	74.8
Divorced, separated, or never married	92.3	91.5	68.1
Presence of other people living in household			
Lives alone	94.2	89.4	73.5
Lives with others	93.7	91.5	67.7
Race/ethnicity			
Non-Hispanic black	95.6	93.8	69.3
Non-Hispanic white	94.9	89.6	73.4
Non-Hispanic other	NA	NA	NA
Hispanic	NA	NA	NA
Employment status			
Employed	90.8	88.6	73.1
Not employed	94.6	90.7	70.7
Monthly income-to-poverty ratio			
0 to 100	93.6	93.9	69.5
101 to 200	93.7	89.4	70.6
201 and above	91.8	88.2	75.6
Census region			
Midwest	92.3	84.3	62.2
Northeast	97.6	93.6	76.4
South	97.2	90.5	74.1
West	90.3	92.1	72.0
Urbanicity			
Urban	93.7	89.8	69.0
Rural	94.9	91.8	77.3

Source: AoA NSP outcomes surveys, 2015–2016 and 2016–2017, weighted data.

Note: Tabulations are based on an unweighted sample size of 431 congregate meal participants who completed the 2015–2016 and 2016–2017 surveys. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

Among congregate meal participants who reported eating at a congregate meal site at the time of the 2016–2017 interview, approximately one year after the initial interview in 2015–2016, the majority (71 percent of participants) eat at the program at least as often as they did one year earlier (Table IV.7). Age was associated with intensity of use, with greater percentages of participants ages 75 to 84 and age 85 and older eating at the program at least as often as they did one year earlier, compared with those age 74 and younger (73–75 percent versus 67 percent). The following characteristics were also associated with maintaining or increasing use of the program: completing less than high school relative to completing high school (80 versus 68 percent), being a non-Hispanic black participant relative to being a non-Hispanic white participant (83 versus 67 percent), having less income (77 percent among participants with income less than 100 percent of poverty compared with 68 to 71 percent among those with income from 101 to 200 percent of poverty or greater than 200 percent of poverty), geography (78 percent in the West versus 67 percent in the Midwest), and urbanicity (73 percent in urban areas versus 67 percent in rural ones). Most, but not all, of these are similar to the characteristics associated with participating all 12 months of the year.

**Table IV.7. Percentages of participants who eat at the congregate meal program as often in 2016–2017 as in 2015–2016, by participant characteristics**

Characteristic	Currently eat at program at least as often as 12 months ago
<b>Total</b>	<b>71.2</b>
Age	
74 and younger	66.5
75 to 84	75.1
85 and older	73.0
Gender	
Male	73.2
Female	70.3
Highest grade level completed	
Completed less than high school	80.4
High school graduate, GED, or equivalent	68.3
Marital status	
Married or living with partner	66.8
Widowed	74.6
Divorced, separated, or never married	69.3
Presence of other people living in household	
Lives alone	69.6
Lives with others	73.1
Race/ethnicity	
Non-Hispanic black	82.8
Non-Hispanic white	67.3
Non-Hispanic other	NA
Hispanic	NA
Employment status	
Employed	82.5
Not employed	68.8
Monthly income-to-poverty ratio	
0 to 100	76.7
101 to 200	70.5
201 and above	68.1
Census region	
Midwest	67.1
Northeast	69.7
South	67.9
West	77.7
Urbanicity	
Urban	72.8
Rural	66.8

Source: AoA NSP outcomes surveys, 2015–2016 and 2016–2017, weighted data.

Note: Tabulations are based on an unweighted sample size of 396 congregate meal participants who still eat at program 12 months after the 2015–2016 interview. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

#### **D. Patterns of home-delivered meal participation over the course of a year**

As was true for congregate meal participants, the rate of continued participation in the NSP was high for home-delivered meal participants. Eighty-five percent of older adults receiving home-delivered meals at the time of the 2015–2016 interview participated about 12 months later at the time of the 2016–2017 interview (Table IV.8). Eighty-two percent of older adults participated in at least six months of the year and 65 percent participated in every month. Although there was a high rate of retention in the NSP among home-delivered meal participants, these rates are lower than those for congregate meal participants.

Similar to congregate meal participants, few characteristics were associated with receiving home-delivered meals 12 months after the 2015–2016 interview (Table IV.8). Participation was more likely among those who were living with others than those who lived alone (89 versus 82 percent); were married or living with their partner than those who were divorced, separated, or never married (88 versus 83 percent); and were living in the Midwest, relative to those in the Northeast (91 versus 78 percent).

Unlike the continuation rates for congregate meal participants, however, the percentages of home-delivered meal participants who participated in at least six months of the year and in every month of the year also varied little by participant characteristics (Table IV.8). There were some differences by age, with older participants more likely to participate at least six months, and differences by income, with higher-income participants more likely to participate than lower-income participants. The percentage also varied geographically, with older adults living in the Midwest being most likely to participate at least six months.

The likelihood of participating in each of the next 12 months varied by participants' characteristics. In some cases there was no clear pattern. For example, the continuation rate differed by age, but was higher (69 percent) for the youngest group (74 and younger) and the oldest group (85 and older) and lower (58 percent) for the middle group (75 to 84 years old). In other cases, some groups were clearly more likely to continue to participate for all 12 months: men rather than women (71 versus 62 percent); participants who lived alone rather than with others (67 versus 62 percent); higher-income participants, relative to lower-income participants (81 versus 62–66 percent); and participants who lived in the West, relative to those in the Northeast (69 versus 53 percent).

**Table IV.8. Percentages of home-delivered meal participants who continued to participate in the 12 months after the 2015–2016 interview, by participant characteristics**

Characteristic	Home-delivered meal participant in the 2015–2016 interview who continued to be a participant 12 months later	Home-delivered meal participant in the 2015–2016 interview who participated in at least 6 of the next 12 months	Home-delivered meal participant in the 2015–2016 interview who participated in all of the next 12 months
<b>Total</b>	<b>85.0</b>	<b>82.1</b>	<b>64.6</b>
Age			
74 and younger	87.0	77.2	68.6
75 to 84	82.0	81.4	57.6
85 and older	86.4	85.7	68.5
Gender			
Male	88.4	84.4	71.0
Female	83.6	81.1	61.9
Highest grade level completed			
Completed less than high school	87.1	81.8	66.8
High school graduate, GED, or equivalent	83.4	82.3	63.2
Marital status			
Married or living with partner	87.6	83.7	59.3
Widowed	84.9	81.1	66.1
Divorced, separated, or never married	82.8	82.3	65.6
Presence of other people living in household			
Lives alone	82.1	80.6	67.3
Lives with others	88.7	83.6	62.3
Race/ethnicity			
Non-Hispanic black	85.4	87.0	76.2
Non-Hispanic white	84.8	81.6	62.3
Non-Hispanic other	NA	NA	NA
Hispanic	NA	NA	NA
Employment status			
Employed	NA	NA	NA
Not employed	85.2	81.6	66.2
Monthly income-to-poverty ratio			
0 to 100	87.5	81.2	65.5
101 to 200	82.1	80.0	61.6
201 and above	90.6	92.2	81.0
Census region			
Midwest	90.5	87.1	67.8
Northeast	77.9	75.6	53.1
South	84.8	79.8	66.9
West	85.5	84.9	69.4
Urbanicity			
Urban	83.9	82.1	66.2
Rural	88.0	82.0	60.3

Source: AoA NSP outcomes surveys, 2015–2016 and 2016–2017, weighted data.

Note: Tabulations are based on an unweighted sample size of 323 home-delivered meal participants who completed the 2015–2016 and 2016–2017 surveys. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

## V. PARTICIPATION IN OTHER PROGRAMS AND USE OF NSP SERVICES

This chapter examines how participants meet their needs related to food and nutrition, health, and personal care. It presents information on NSP participants' take-up of a wide array of services provided through the program, as well as other services available in the community. It assesses how participation in the Supplemental Nutrition Assistance Program (SNAP) and receipt of emergency food, as well as participation in the Low Income Home Energy Assistance Program (LIHEAP), differs by participants' characteristics and circumstances and agency (local service provider) characteristics. It also assesses differences across types of participants in their use of services at the meal site, at home, or in the community such as nutrition counseling, case management services, transportation services, and personal care services.

### A. SNAP participation

A variety of federal, state, and local food assistance programs are available to help older adults meet their food and nutritional needs. Congregate and home-delivered meal participants receive assistance to purchase food through SNAP and directly receive food through other food and nutrition assistance programs, such as food pantries and soup kitchens. Twenty-seven percent of congregate meal participants and 30 percent of home-delivered meal participants reported participating in SNAP (Table V.1).

For congregate meal participants, participating in SNAP was associated with being younger: 38 percent of individuals age 74 and younger participated, compared with 19 percent of those ages 75 to 84 and 14 percent of those age 85 and older (Table V.1). The following characteristics were also associated with SNAP participation: female versus male gender (29 versus 23 percent); completing less high school relative to being a high school graduate (37 versus 24 percent); not being married relative to being married or living with a partner (24–41 percent versus 15 percent); and being Hispanic, non-Hispanic black, or non-Hispanic other relative to being non-Hispanic white (28–58 percent versus 15 percent). The largest differences were across income groups: 63 percent of older adults with household income less than or equal to 100 percent of poverty participated in SNAP compared with 22 percent of those with income between 101 and 200 percent and less than 1 percent of those with income at or above 201 percent of poverty.<sup>6</sup> SNAP participation was highest in the West and Northeast (31 and 30 percent) and lowest in the South (18 percent). It was also higher among congregate meal participants in urban areas than in rural areas (32 versus 12 percent).

Many of the same factors were associated with SNAP participation among home-delivered meal participants. The largest differences were across age and income groups. Fifty-eight percent of individuals age 74 and younger participated, compared with 29 percent of those ages 75 to 84 and 17 percent of those age 85 and older (Table V.1). Regarding income, 50 percent of older adults with household income less than or equal to 100 percent of poverty participated in SNAP compared with 27 percent of those with income between 101 and 200 percent and 3 percent of

<sup>6</sup> This largely reflects program eligibility rules based on income—most households with elderly members have gross income net of allowable deductions below 100 percent of the federal poverty level, though some participants can be categorically eligible for SNAP even if their income exceeds this amount.

those with income at or above 201 percent of poverty. Participation was highest in the Northeast than in other regions (39 versus 25–29 percent).

**Table V.1. Percentage of participants currently receiving SNAP benefits, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>26.7</b>	<b>29.9</b>
Age		
74 and younger	38.2	57.8
75 to 84	19.2	28.8
85 and older	14.0	16.8
Gender		
Male	22.8	26.2
Female	28.6	31.8
Highest grade level completed		
Completed less than high school	37.0	39.0
High school graduate, GED, or equivalent	24.0	23.0
Marital status		
Married or living with partner	14.5	26.0
Widowed	24.2	25.1
Divorced, separated, or never married	40.6	45.7
Presence of other people living in household		
Lives alone	28.1	28.9
Lives with others	24.7	31.7
Race/ethnicity		
Non-Hispanic black	57.6	50.9
Non-Hispanic white	15.3	26.6
Non-Hispanic other	57.5	NA
Hispanic	28.4	NA
Employment status		
Employed	35.6	NA
Not employed	25.0	30.2
Monthly income-to-poverty ratio		
0 to 100	63.1	50.3
101 to 200	22.3	27.0
201 and above	0.4	2.7
Census region		
Midwest	22.2	29.4
Northeast	30.0	38.9
South	18.2	25.9
West	30.5	24.9
Urbanicity		
Urban	32.3	31.0
Rural	11.5	26.6

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

SNAP participation differed by several agency characteristics as well (Table V.2). Congregate meal participants were more likely to participate in SNAP if they received meals from a smaller agency than from a larger one based on the number of full-time equivalent



employees (FTEs) (33 versus 17 percent) and if the agency did not provide nutrition counseling (29 versus 19 percent), social activities (41 versus 20 percent), or nutrition health promotion and disease prevention activities (30 versus 24 percent). SNAP participation was more likely among NSP participants who received meals from agencies that provided nutrition education as opposed to those that did not (30 versus 17 percent).

**Table V.2. Percentage of participants currently receiving SNAP benefits, by agency characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>26.7</b>	<b>29.9</b>
Type of organization		
Public	23.7	26.7
Private	27.6	31.0
Structure of Organization		
Standalone organization	26.2	36.2
Part of another organization	27.5	22.2
Agency size (number of FTEs)		
Above median number of FTEs	17.0	34.1
At or below median number of FTEs	33.1	26.1
Agency size based on program expenditures		
Above median amount of expenditures	26.8	36.6
At or below median amount of expenditures	26.6	22.7
Agency provides nutrition counseling		
Yes	19.2	28.8
No	28.8	30.2
Agency provides nutrition education		
Yes	30.4	30.1
No	16.6	29.5
Agency provides nutrition assessment		
Yes	26.8	32.8
No	26.6	23.6
Agency provides social activities		
Yes	19.8	24.9
No	40.5	37.1
Agency provides nutrition health promotion and disease prevention activities		
Yes	23.7	24.7
No	30.3	34.8

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

Many of the findings were different for home-delivered meal participants (Table V.2). SNAP participation was higher at standalone organizations than at those that were part of another organization (36 versus 22 percent), larger agencies (34 versus 26 percent based on FTEs and 37 versus 23 percent based on expenditures), and at agencies that offered nutrition assessment (33 versus 24 percent). Similar to congregate meal participants, home-delivered meal participants were more likely to participate in SNAP if they received meals from agencies that did not provide social activities (37 versus 25 percent) or nutrition health promotion and disease prevention activities (35 versus 25 percent).

## **B. Emergency food assistance**

Receiving food from emergency food pantries in the past 30 days was about half as likely as participating in SNAP. About 17 percent of congregate meal participants and 14 percent of home-delivered meal participants received food from food pantries (Table V.3). Many of the factors that were associated with participating in SNAP were associated with pantry use for congregate meal participants, including being younger; being female; completing less than high school; being divorced, separated, or never married; being Hispanic or non-Hispanic black (relative to non-Hispanic white); having less income; and living in an urban area. Pantry use was nearly three times as likely for participants age 74 and younger than it was those 75 to 84 (29 versus 9 percent) and was over twice as likely among poor participants than it was for those who were near poor (40 versus 14 percent). For home-delivered meal participants, the factors associated with SNAP participation also generally were associated with receiving emergency food. Exceptions included higher rates of receiving emergency food in rural areas than in urban areas (23 versus 11 percent) and among married participants than among non-married participants (24 versus 8–12 percent).

For congregate meal participants, emergency food pantry use was associated with receiving meals from agencies that did not provide nutrition counseling, nutrition assessment, social activities, or nutrition health promotion and disease prevention activities (Table V.4). Like SNAP participation, however, it was associated with receiving meals from agencies that provided nutrition education. There were fewer and smaller associations for home-delivered meal participants, but they generally indicated higher pantry use for participants who received meals from agencies that did not provide specific services such as nutrition counseling and assessment.

**Table V.3. Percentage of participants who received food from a food pantry or food bank in the past 30 days, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>17.3</b>	<b>14.0</b>
Age		
74 and younger	28.6	26.9
75 to 84	9.3	12.5
85 and older	6.0	8.9
Gender		
Male	13.9	9.6
Female	19.0	16.3
Highest grade level completed		
Completed less than high school	23.3	16.8
High school graduate, GED, or equivalent	15.8	12.0
Marital status		
Married or living with partner	12.7	24.3
Widowed	14.8	12.3
Divorced, separated, or never married	25.0	8.0
Presence of other people living in household		
Live alone	16.0	9.8
Lives with others	18.7	20.5
Race/ethnicity		
Non-Hispanic black	27.0	20.3
Non-Hispanic white	10.4	12.5
Non-Hispanic other	42.0	NA
Hispanic	26.0	NA
Employment status		
Employed	18.0	NA
Not employed	17.2	14.4
Monthly income-to-poverty ratio		
0 to 100	39.9	22.5
101 to 200	13.7	15.6
201 and above	1.6	3.2
Census region		
Midwest	18.2	14.9
Northeast	9.7	7.4
South	15.3	22.9
West	24.6	12.5
Urbanicity		
Urban	19.3	11.0
Rural	11.9	23.0

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregated meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

**Table V.4. Percentage of participants who received food from a food pantry or food bank in the past 30 days, by agency characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>17.3</b>	<b>14.0</b>
Type of organization		
Public	15.2	9.7
Private	18.0	15.6
Structure of organization		
Standalone organization	18.5	15.9
Part of another organization	15.5	11.8
Agency size (number of FTEs)		
Above median number of FTEs	10.2	13.9
At or below median number of FTEs	22.0	14.1
Agency size based on program expenditures		
Above median amount of expenditures	20.5	11.2
At or below median amount of expenditures	14.0	17.2
Agency provides nutrition counseling		
Yes	10.5	9.2
No	19.3	15.7
Agency provides nutrition education		
Yes	20.1	13.8
No	9.6	14.3
Agency provides nutrition assessment		
Yes	11.8	12.1
No	24.0	18.2
Agency provides social activities		
Yes	12.6	15.1
No	26.6	12.4
Agency provides nutrition health promotion and disease prevention activities		
Yes	14.8	14.2
No	20.4	13.8

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

Receiving meals from soup kitchens in the past 30 days was less common than participating in SNAP or receiving food from emergency pantries, particularly for home-delivered meal participants. About 11 percent of congregate meal participants and 3 percent of home-delivered meal participants received meals from soup kitchens in the past 30 days (Table V.5). The characteristics of participants associated with receiving meals from an emergency kitchen generally were similar to those for receiving food from emergency pantries. Congregate meal participants were more likely to receive meals from a kitchen if they were younger; had completed less than high school; were divorced, separated, or never married; had less income; or lived in an urban area. The largest differences across groups were for income: 23 percent of participants with income less than 100 percent of poverty received food from an emergency kitchen compared with 9 percent of those with income from 101 to 200 percent of poverty and 3 percent of those with income greater than 201 percent of poverty. Unlike receiving meals from pantries, men were more likely than women to receive meals from emergency kitchens (16 versus 8 percent), as were those who lived alone than those who lived with others (13 versus 8

percent). For home-delivered meal participants, this use was associated most strongly with being younger: 9 percent of individuals age 74 and younger received meals from an emergency kitchen compared with 1 to 2 percent of individuals ages 75 and older.

**Table V.5. Percentage of participants who received any meals provided by churches, soup kitchens, or emergency kitchens in the past 30 days, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>10.7</b>	<b>3.0</b>
Age		
74 and younger	13.5	9.0
75 to 84	10.8	2.2
85 and older	2.5	0.7
Gender		
Male	16.1	1.5
Female	8.1	3.8
Highest grade level completed		
Completed less than high school	15.6	2.9
High school graduate, GED, or equivalent	9.5	3.2
Marital status		
Married or living with partner	6.5	2.5
Widowed	5.4	1.8
Divorced, separated, or never married	21.9	6.5
Presence of other people living in household		
Lives alone	12.5	2.2
Lives with others	8.0	4.4
Race/ethnicity		
Non-Hispanic black	13.3	1.9
Non-Hispanic white	9.8	3.7
Non-Hispanic other	12.9	NA
Hispanic	9.9	NA
Employment status		
Employed	13.8	NA
Not employed	10.1	2.6
Monthly income-to-poverty ratio		
0 to 100	23.4	5.1
101 to 200	9.3	2.5
201 and above	3.4	3.4
Census region		
Midwest	5.2	3.8
Northeast	14.4	1.1
South	9.4	6.9
West	11.6	0.9
Urbanicity		
Urban	12.9	3.1
Rural	5.0	2.8

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

The percentage of congregate meal participants that received meals from an emergency kitchen differed by several characteristics of the agencies from which participants receive congregate meals. Receiving food from kitchens was more likely for participants at private organizations than for those at public organizations (14 versus 2 percent), smaller agencies (15 versus 5 percent based on FTEs and 13 versus 8 percent based on expenditures), and at agencies that offered nutrition counseling (13 versus 5 percent) (Table V.6). Similar to SNAP participation and receiving food from emergency pantries, receiving food from emergency kitchens was greater for those who received meals from agencies that provided nutrition counseling (13 versus 5 percent). As was the case for participant characteristics, small differences in receiving food from emergency kitchens by agency characteristics also existed for home-delivered meal participants.

**Table V.6. Percentage of participants who received any meals provided by churches, soup kitchens, or emergency kitchens in the past 30 days, by agency characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>10.7</b>	<b>3.0</b>
Type of organization		
Public	1.6	3.4
Private	13.5	2.9
Structure of organization		
Standalone organization	9.4	2.4
Part of another organization	12.7	3.8
Agency size (number of FTEs)		
Above median number of FTEs	4.7	2.4
At or below median number of FTEs	14.7	3.6
Agency size based on program expenditures		
Above median amount of expenditures	8.4	1.7
At or below median amount of expenditures	13.1	4.5
Agency provides nutrition counseling		
Yes	4.7	0.7
No	12.5	3.8
Agency provides nutrition education		
Yes	12.7	2.0
No	5.3	4.6
Agency provides nutrition assessment		
Yes	4.6	2.0
No	18.1	5.2
Agency provides social activities		
Yes	10.9	2.9
No	10.3	3.2
Agency provides nutrition health promotion and disease prevention activities		
Yes	12.0	2.4
No	9.2	3.7

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

### C. Nutrition and supportive services

About 15 percent of congregate meal participants and 19 percent of home-delivered meal participants used NSP nutrition and supportive services other than program meals (Table V.7). Home-delivered meal participants used personal care services or home visits for physical, occupational, or speech therapy (11 percent); case management services (10 percent); and light housekeeping services or chore services (11 percent) (Table V.7). With few exceptions, congregate meal participants were less likely than home-delivered meal participants to receive these services.

**Table V.7. Other nutrition and supportive services participants used in the past six months**

Service	Congregate meal participants (percentage)	Home-delivered meal participants (percentage)
Any help or services from program, Area Agency on Aging, or some other agency or provider	15.0	18.8
Adult day care services	0.7	0.3
Personal care services for help with dressing or bathing, or home visit from nurse or therapist to provide physical, occupational, or speech therapy	2.0	10.8
Nutrition counseling	3.1	1.9
Case management services	1.8	10.2
Free or discounted housing	2.4	2.6
Support group	2.3	2.7
Light housekeeping services or chore services for heavier housecleaning or yard work	3.6	10.9

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

Use of nutrition and supportive services was more likely among congregate meal participants who were female, non-Hispanic black, not employed, had less income, and lived in the Northeast (Table V.8). The largest differences were for participants who lived in the Northeast relative to those in the West (25 versus 9 percent), those who had income below 100 percent of poverty versus participants who had income at least 201 percent of poverty (19 versus 6 percent), and non-Hispanic black and non-Hispanic other participants versus Hispanic participants (20–23 percent versus 5 percent). Among home-delivered meal participants, receiving nutrition and supportive services was more likely among participants who had completed high school (25 versus 11 percent), those living alone than those living with others (22 versus 15 percent), and those living in the Northeast, relative to those living in the West (25 versus 15 percent).

**Table V.8. Percentage of participants who used any nutrition or supportive services in the past six months, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>15.0</b>	<b>18.8</b>
Age		
74 and younger	15.1	16.9
75 to 84	15.4	20.7
85 and older	13.9	18.0
Gender		
Male	9.6	17.5
Female	17.8	19.4
Highest grade level completed		
Completed less than high school	13.7	10.5
High school graduate, GED, or equivalent	15.4	24.5
Marital status		
Married or living with partner	15.0	17.1
Widowed	13.3	15.7
Divorced, separated, or never married	17.5	27.5
Presence of other people living in household		
Lives alone	15.3	21.9
Lives with others	14.8	15.2
Race/ethnicity		
Non-Hispanic black	19.8	24.1
Non-Hispanic white	14.9	17.7
Non-Hispanic other	22.5	NA
Hispanic	5.3	NA
Employment status		
Employed	4.9	NA
Not employed	17.2	19.0
Monthly income-to-poverty ratio		
0 to 100	18.6	20.2
101 to 200	17.9	20.3
201 and above	6.4	22.7
Census region		
Midwest	15.3	17.6
Northeast	24.6	25.4
South	11.5	17.6
West	8.9	15.2
Urbanicity		
Urban	15.1	19.6
Rural	14.8	16.4

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

The use of any nutrition or supportive services in the past six months also differed by several agency characteristics (Table V.9). Congregate meal participants were more likely to use services if they received meals from an agency that was part of another organization rather than a standalone organization (21 versus 11 percent), a smaller agency rather than a larger one based on the number of FTEs (18 versus 10 percent) and based on program expenditures (19 versus 11 percent), and if the agency provided nutrition health promotion and disease prevention activities



(19 versus 10 percent). For home-delivered meal participants, service use was also related to receiving meals from public agencies rather than private ones (26 versus 17 percent); from smaller agencies rather than larger ones based on program expenditures (22 versus 16 percent); and from those that did not provide nutrition counseling (20 versus 14 percent) or social activities (22 versus 17 percent).

**Table V.9. Percentage of participants who used any nutrition or supportive services in the past six months, by agency characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>15.0</b>	<b>18.8</b>
Type of organization		
Public	17.5	25.9
Private	14.2	16.6
Structure of organization		
Standalone organization	11.2	19.4
Part of another organization	20.9	18.0
Agency size (number of FTEs)		
Above median number of FTEs	9.9	16.9
At or below median number of FTEs	18.3	20.4
Agency size based on program expenditures		
Above median amount of expenditures	11.2	15.6
At or below median amount of expenditures	19.1	21.9
Agency provides nutrition counseling		
Yes	13.0	14.1
No	15.7	20.4
Agency provides nutrition education		
Yes	16.4	18.6
No	11.4	19.0
Agency provides nutrition assessment		
Yes	13.9	17.9
No	16.3	20.4
Agency provides social activities		
Yes	16.1	16.5
No	12.8	22.1
Agency provides nutrition health promotion and disease prevention activities		
Yes	19.2	19.6
No	9.8	18.1

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

### **C. Emergency energy assistance**

Energy assistance such as the Low-Income Home Energy Assistance Program (LIHEAP) was received by 10 percent of congregate meal participants and 13 percent of home-delivered meal participants (Table V.10). Congregate meal participants were more likely to receive energy assistance if they were younger, female, completed less than high school, were non-married, were non-Hispanic black, were not employed, had less income, and lived in the Northeast. Some of the largest differences were between participants who were non-Hispanic black and those who were non-Hispanic white or Hispanic (24 versus 4–8 percent), those with income less than 100 percent of poverty and those with income greater than 201 percent of poverty (22 versus 1 percent), and those living in the Northeast versus the other regions (19 versus 5–8 percent). Fewer participant characteristics were associated with receiving energy assistance among home-delivered meal participants. Energy assistance was particularly higher among poorer home-delivered meal participants and those who were divorced, separated, or never married.

Several characteristics of agencies from which participants receive congregate meals were also associated with participants' use of energy assistance. Receiving heating and cooling assistance was more likely for participants at private organizations than those at public organizations (12 versus 5 percent), agencies that are part of another organization than at standalone organizations (13 versus 8 percent), and smaller agencies (12 versus 7 percent based on FTEs and 15 versus 6 percent based on expenditures) (Table V.11). Receiving such assistance was also more likely at agencies that offered nutrition education (12 versus 6 percent) and agencies that provided nutrition health promotion and disease prevention activities (15 versus 5 percent). Among home-delivered meal participants, energy assistance was more likely among those who received food from agencies that offered nutrition assessment and agencies that did not offer nutrition counseling, nutrition education, social activities, or health promotion activities.

**Table V.10. Percentage of participants who received emergency assistance to help with heating and cooling in the past 30 days, by participant characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>10.2</b>	<b>13.3</b>
Age		
74 and younger	13.2	17.0
75 to 84	9.0	15.6
85 and older	5.3	9.6
Gender		
Male	1.7	12.5
Female	14.4	13.7
Highest grade level completed		
Completed less than high school	19.3	13.9
High school graduate, GED, or equivalent	7.9	12.8
Marital status		
Married or living with partner	5.4	7.9
Widowed	8.1	10.2
Divorced, separated, or never married	17.7	26.5
Presence of other people living in household		
Lives alone	11.9	16.5
Lives with others	7.6	8.8
Race/ethnicity		
Non-Hispanic black	23.5	23.7
Non-Hispanic white	7.6	10.6
Non-Hispanic other	16.9	NA
Hispanic	4.0	NA
Employment status		
Employed	4.7	NA
Not employed	11.3	12.9
Monthly income-to-poverty ratio		
0 to 100	21.7	25.5
101 to 200	9.3	11.6
201 and above	0.6	1.7
Census region		
Midwest	8.2	13.9
Northeast	19.2	19.2
South	6.8	12.3
West	4.8	7.7
Urbanicity		
Urban	10.5	12.9
Rural	9.3	14.6

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

NA = Not available due to small cell size

**Table V.11. Percentage of participants who received emergency assistance to help with heating and cooling in the past 30 days, by agency characteristics**

Characteristic	Congregate meal participants	Home-delivered meal participants
<b>Total</b>	<b>10.2</b>	<b>13.3</b>
Type of organization		
Public	5.4	16.2
Private	11.7	12.3
Structure of organization		
Standalone organization	8.3	14.2
Part of another organization	13.2	12.1
Agency size (number of FTEs)		
Above median number of FTEs	7.1	15.3
At or below median number of FTEs	12.3	11.5
Agency size based on program expenditures		
Above median amount of expenditures	5.8	14.2
At or below median amount of expenditures	14.7	12.3
Agency provides nutrition counseling		
Yes	8.0	3.5
No	10.9	16.6
Agency provides nutrition education		
Yes	11.6	10.8
No	6.3	16.8
Agency provides nutrition assessment		
Yes	10.4	15.1
No	9.9	9.3
Agency provides social activities		
Yes	11.3	11.5
No	8.0	15.9
Agency provides nutrition health promotion and disease prevention activities		
Yes	14.7	10.9
No	4.6	15.5

Source: AoA NSP outcomes survey, 2015–2016, weighted data.

Note: Tabulations are based on an unweighted sample size of 596 congregate meal participants and 504 home-delivered meal participants. Individual estimates within the table may have slightly fewer observations due to item nonresponse to individual questions.

## VI. CONCLUSION

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This chapter summarizes the findings from the assessment of participants' needs, patterns of NSP participation, receiving food assistance from other programs, and use of non-meal NSP services. It also presents recommendations for additional information collection and research motivated by the study findings.

### A. NSP participants' needs and trade-offs in making ends meet

The NSP has been shown to have beneficial effects on food security, socialization, and diet quality (Mabli et al. 2017), but a nontrivial percentage of participants continue to experience challenges making ends meet and face food hardships due to insufficient income. This study examined three measures of need: whether participants experienced challenges making ends meet, faced trade-offs between purchasing food and other basic needs, and experienced food insecurity.

**Challenges making ends meet.** About 15 percent of congregate meal participants and 23 percent of home-delivered meal participants reported that they experience challenges making ends meet. Experiencing these types of challenges was more common among participants who were younger, were poor, lived in urban areas, were not married, and, for congregate meal participants, those living in the West.

**Food hardships and trade-offs.** Some participants faced trade-offs in purchasing food each month. For congregate meal participants, the most common was choosing between buying food and buying medications (7 percent). A similar percentage of participants (7 percent) made trade-offs between buying food and paying utility bills, and a smaller percentage made trade-offs between buying food and paying rent (4 percent). Although these percentages are fairly small when calculated among the full population of congregate meal participants, the percentage of participants who made trade-offs between purchasing food and other basic needs was much higher for specific groups of people, including participants who were younger, poor, Hispanic, or lived in the West.

Home-delivered meal participants also made trade-offs between purchasing food and other basic needs. The most common was choosing between buying food and paying utility bills (9 percent), with smaller percentages of participants making trade-offs between buying food and buying medications (4 percent) and between buying food and paying rent (5 percent). As was the case for congregate meal participants, the prevalence of making trade-offs among home-delivered meal participants was highest for participants who were younger and were not married. The difference by income for home-delivered meal participants was much smaller than it was for congregate meal participants.

**Food insecurity.** Although the majority of NSP participants were food secure, 16 percent of congregate meal participants and 23 percent of home-delivered meal participants had experienced food access limitations during the past month due to lack of money or other resources—they were food insecure. Many of the types of participants who were more likely to encounter financial hardships and face trade-offs in purchasing food were also more likely to be food insecure, including participants who were younger, had less income, were Hispanic, and

lived in the West. For home-delivered meal participants, food insecurity was also higher for participants who had not finished high school or were non-Hispanic black.

**Summary.** Considering all three measures of need and hardships together, many common factors were associated with having a higher level of need and a greater likelihood of experiencing hardships. Participants who were younger (age 74 and younger) and had less income (those with income below 100 percent of poverty) reported the highest level of need and were most likely to face hardships. Other common factors were not being married, living in an urban area, and, for two of the three measures, being Hispanic. Finally, there were regional differences in the prevalence of need and hardships, with participants living in the West reporting greater challenges and food hardships than those living in the Northeast.

## **B. Patterns of participation in the NSP**

NSP participants received meals frequently. For congregate meal participants, 43 percent received five or more meals per week and 64 percent received four or more meals per week. Most participants (79 percent) attended a single site for meals. Similarly, 71 percent of home-delivered meal participants received five or more meals per week and 85 percent received three or more meals per week. Nearly all participants (97 percent) received meals from a single site.

**Frequency of use per week.** The frequency with which participants used the program differed by age, gender, marital status, and race and ethnicity. Participants who used the program more frequently were more likely to be older, male, poor, not married, and Hispanic, and more likely to have completed less than high school and live in an urban area. Using multiple meal sites was more common among participants who were younger, male, poor, living alone, Hispanic, and living in the West. Unlike congregate meal participants, home-delivered meal participants used the program more frequently if they were older, lived with others, and lived in a rural area. Similar to congregate meal participants, home-delivered meal participants used the program more if they had not completed high school.

**Continued participation over a year.** The rate of continued participation in the NSP among congregate meal participants was high over the course a year, with 94 percent of older adults receiving congregate meals still participating about 12 months later. Smaller, yet still sizable, percentages of older adults participated in at least 6 of the next 12 months (90 percent) and even in each of the next 12 months (71 percent). Thus, the rate of retention in the NSP among congregate meal participants was high in terms of their continued participation and the number of months in which they participated. Little variation existed in the types of congregate meal participants who continued to participate in the NSP about 12 months later, with slightly more variation in the percentage of participants who continued to receive congregate meals for at least 6 months of the next year.

As was true for congregate meal participants, the rate of continued participation in the NSP for home-delivered meal participants was high, with 85 percent of older adults receiving home-delivered meals still participating about 12 months later. Eighty-two percent of older adults participated in at least 6 months of the year and 65 percent participated in every month. Although the rate of retention in the NSP among home-delivered meal participants was high, this rate was lower than that for congregate meal participants. Similar to trends among congregate meal

participants, few characteristics among home-delivered meal participants were associated with continued participation about 12 months later.

**Summary.** Considering both the frequency of use in a given week and continued participation over the following year, many factors were associated with greater use of the NSP. For congregate meals, participants who were Hispanic, poor, lived in urban areas, or lived in the West were more likely to receive meals more often and to visit multiple meal sites. Younger participants ate at meal sites less often than older participants, but were more likely than older participants to visit multiple sites. Other factors associated with frequency of use included male gender, not being married, living alone, completing less than high school, and being unemployed. Many of these characteristics were also associated with having a higher level of need in terms of facing challenges making ends meet, trade-offs purchasing food and other basic needs, and experiencing food insecurity (in particular, being Hispanic, poor, and living in the West).

Fewer connections existed between need, hardships, and frequency of use for home-delivered meal participants, however. Younger participants received home-delivered meals more frequently than older participants and faced greater challenges and food hardships. However, home-delivered meal participants who lived in the West used the program most frequently relative to participants in other regions, but had the lowest food insecurity rates.

### **C. Participation in other programs and use of NSP services**

Differences existed in how participants attempted to meet their needs related to food and nutrition, health, and personal care. Some participated in SNAP, received food from emergency food pantries and through soup kitchens and shelters, and received heating and cooling assistance through LIHEAP. Some also used non-meal services at the meal site, at home, or in the community such as nutrition counseling, case management services, transportation services, and personal care services.

**SNAP participation.** More than one-quarter of congregate and home-delivered meal participants receive assistance to purchase food through SNAP. Congregate meal participants were more likely to participate in SNAP if they were younger; had completed less than high school; were not married; or were Hispanic, non-Hispanic black, or non-Hispanic other. The largest differences were between income groups. SNAP participation was highest in the West and Northeast and higher among congregate meal participants in urban areas. Many of the same factors were associated with SNAP participation among home-delivered meal participants, with the largest differences across age and income groups.

**Emergency food pantries.** Receiving food from emergency food pantries was about half as common as participating in SNAP. About 17 percent of congregate meal participants and 14 percent of home-delivered meal participants received food from food pantries in the past 30 days. Many of the factors associated with participating in SNAP were associated with pantry use for congregate meal participants, including being younger; being female; completing less than high school; being divorced, separated, or never married; being Hispanic or non-Hispanic black (relative to non-Hispanic white); having less income; and living in an urban area. For home-delivered meal participants, the factors associated with SNAP participation generally were associated with receiving emergency food.

**Food assistance from soup kitchens.** Receiving food from soup kitchens in the past 30 days was less common than participating in SNAP or receiving food from emergency pantries, particularly for home-delivered meal participants. About 11 percent of congregate meal participants and 3 percent of home-delivered meal participants received food from soup kitchens in the past month.

**Emergency assistance from LIHEAP.** LIHEAP offers financial assistance to low-income families, targeting older adults and other vulnerable populations, to help pay home heating and cooling bills. Ten percent of congregate meal participants and 13 percent of home-delivered meal participants received energy assistance such as LIHEAP.

**Non-meal NSP services.** Participants also used non-meal services at the meal site, at home, or in the community. About 15 percent of congregate meal participants and 19 percent of home-delivered meal participants used these types of nutrition and supportive services, including personal care services or home visits for physical, occupational, or speech therapy; case management services; and light housekeeping services or chore services. With few exceptions, congregate meal participants were less likely than home-delivered meal participants to receive these services. Using nutrition and supportive services was more likely among congregate meal participants who were female, non-Hispanic black, not employed, had less income, and lived in the Northeast. Among home-delivered meal participants, receiving nutrition and supportive services was more likely among participants who had completed high school, lived alone, and lived in the Northeast.

**Summary.** Considering the full set of food assistance, energy assistance, and other nutrition and supportive services together, participants were more likely to participate in these programs and receive these services if they were younger, had completed less than high school, were not married, and were poor. In most cases, the largest differences in program participation and service use were by age and income. Although there were several exceptions, for most programs and services, participation was associated with living in an urban area and being female. For SNAP and emergency pantry participation—the two programs with the highest participation rates—participation was greater among Hispanic participants than non-Hispanic participants.

Many of these factors were the same as those associated with higher levels of need. In particular, participants who were younger, had less income, were not married, and lived in an urban area were more likely (1) to experience food hardships and challenges making ends meet and (2) to participate in SNAP, receive emergency food or energy assistance, or use other nutrition and supportive services. Thus, participants with the greatest need were the most likely to participate in food assistance programs and receive non-meal services.

#### **D. Implications for policy and future research**

Less than one-quarter of participants reported experiencing challenges making ends meet, faced food hardships, or were food insecure; however, specific groups of participants disproportionately experienced these challenges and were unable to fully meet their food needs. By characterizing these types of participants, AoA and state and local agencies can identify the types of participants the program could target to provide additional or more intensive services that help mitigate these challenges. In particular, based on the findings in this report, agencies can target additional program services to participants who are younger, have less income, are not



married, and live in an urban area. AoA can take a number of steps to learn more about how to meet participants' needs. Below, we have separated these into steps related to learning more about program participation patterns and use of community programs and non-meal NSP services.

**Program participation patterns.** AoA can assess the number of meals that congregate and home-delivered meal participants with high levels of need are receiving. Congregate meal participants decide how many times per week to visit and eat at the meal site, but many sites have a set number of days in which they operate. Thus, for congregate meal participants, understanding the factors that determine an agency's number of operating days can help identify ways of increasing availability of meals to participants who need them. For sites that already offer meals many days per week, understanding why participants who face food hardships or experience challenges making ends meet do not participate more each week can help identify ways of increasing participation further.

The findings from the second objective of this report can help AoA understand participation patterns and, specifically, whether participants with the greatest need are participating often and intensively enough. Congregate meal participants who were Hispanic, were poor, were not married, completed less than high school, were not employed, lived in urban areas, and lived in the West were more likely to receive meals more often and to visit multiple sites. AoA could learn more about the groups that participated relatively less or did not visit multiple meal sites (such as participants with more income and those who have completed high school) to learn whether lower levels of participation reflect lower levels of need or if they reflect barriers to participation. For example, participants who had less income, were not married, and lived in urban areas reported experiencing greater challenges, food hardships, and food security, and were also more likely to participate frequently and visit multiple sites. However, although younger participants reported experiencing more challenges and food hardships, they participated less often than older participants, which might reflect a barrier to participation. Similarly, for home-delivered meal participants, fewer connections existed between need, hardships, and frequency of use.

For these reasons, AoA could obtain more information from participants about whether they would like to participate more but cannot due to limited availability of meals or program services. For congregate meal participants, understanding reasons for visiting multiple meal sites is also important. Participants may visit multiple sites because their main meal site operates only a few days each week or because the agencies that provide the other services they obtain in the community are co-located with other meal sites.

This report examined for the first time the rates of continued participation in the NSP over the course of a year. The rate of continued participation in the NSP over a 12-month period was high (94 percent of congregate meal participants), but the rate of participation in every month of the following year was lower (71 percent). For home-delivered meal participants, these percentages were 85 and 65 percent, respectively. AoA could assess whether participants who want to continue receiving program meals can do so or whether participants face barriers to continued participation. For example, among the 29 percent of congregate meal participants who did not participate each month during the year, what percentage continued to experience challenges meeting their food needs but could not participate because of transportation barriers

getting to the meal site? What percentage chose not to visit meal sites in inclement weather due to fear of falling? What percentage could not participate because the meal site was not operational for part of the year or because of changes in volume or wait list policies? Knowing more about why participants change their frequency and intensity of participation over the course of the year can provide AoA with additional information about how participants use the program to help meet their needs.

**Use of community programs and non-meal NSP services.** Helping participants overcome challenges making ends meet and fulfilling their food needs is also possible by increasing access to existing food assistance programs at the national level such as SNAP or at the local level such as those programs providing emergency food. It is also possible by increasing access to non-meal nutrition and supportive services at NSP meal sites.

Participation in SNAP is generally low, particularly given the high level of need among many of the NSP participants. Among congregate meal participants, the SNAP participation rate was 27 percent among all participants and 63 percent among those who were poor. (The analogous percentages for home-delivered meal participants were 30 and 50 percent, respectively.) Thus, even among participants who were poor and who were likely income-eligible for SNAP, 27 to 50 percent of older adults were not participating in SNAP. AoA could learn more about whether this reflects older adults' lack of knowledge about the program or their potential eligibility, a sense of social stigma, an inability to cook meals at home, or a perceived inconvenience from participating in the program (for example, that receiving program benefits do not outweigh requirements associated with participating in the program in terms of recertifications and reporting changes in one's circumstances). The same line of inquiry is appropriate when asking participants about receiving food from emergency pantries, kitchens, or shelters.

The geographic differences in participation in LIHEAP were sizable. However, even in the Northeast, only 25 percent of participants received heating and cooling services through the program. Even among the program's target population of low-income people, the participation rate was only 19 percent (for participants in all regions). Thus, as for SNAP and other food assistance programs, AoA could learn more about whether lower take-up rates reflect a lack of awareness about the program or its requirements. Learning how meal sites promote access to the program during warm and cold seasons would also be useful.

Finally, low percentages of participants reported receiving non-meal services at the meal site, at home, or in the community, such as home visits for physical, occupational, or speech therapy; case management services; and light housekeeping services or chore services (15 percent for congregate meal participants and 19 percent for home-delivered meal participants). Learning more about the variation in receiving these services can help AoA understand whether participants who need the services are adequately receiving them. In particular, AoA could assess whether the large geographic difference in receiving services between the Northeast and other regions reflects differences in agencies' provision of services or in participants' use of services.

**Implications for future research.** The findings of this descriptive study suggest several substantive research directions, which include the following:

1. Examine the reasons why home-delivered meal participants in rural areas were much more likely than those in urban areas to face trade-offs between purchasing food and meeting other basic needs, whereas congregate meal participants experienced more trade-offs in urban areas.
2. Assess the determinants of geographic differences in challenges, food hardships, and food insecurity between participants living in the West and the Northeast. Do these differences reflect geographic variation in the cost of providing a program meal or the prices that participants pay for food where they live?
3. Examine why NSP participants who were older were less likely to be food insecure than those who were younger. Does this reflect differences in education, living arrangements (living alone versus with others), the ability to cook meals at home, or income?
4. Examine differences in food insecurity among older adults by ethnicity. Why did Hispanic participants have such different food insecurity rates from those who are non-Hispanic?
5. Identify why some congregate meal participants visit multiple meal sites, especially among high-need participants.
6. Describe the characteristics of participants with greater needs who participated less frequently than those with lower levels of needs.
7. Assess whether the rate of retention in the NSP among home-delivered meal participants was lower than the rate among congregate meal participants due to having poorer health.
8. Identify the factors associated with SNAP participation among those who were income-eligible.
9. Examine the association between SNAP and food security. In particular, were NSP participants who did not receive SNAP benefits more likely to be food secure after accounting for income?
10. Identify the reasons why some NSP participants participated less often, or not at all, approximately one year later.
11. Examine the reasons behind large geographic differences in nutrition and supportive services at NSP meal sites.

Answering these questions will enable AoA and state and local agencies to target more precisely the populations the NSP serves, identify groups of people who require more intensive services that help mitigate food hardships and other challenges, and increase retention in the program among older adults who are in greatest need of assistance.

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