#### **SUPPORTING STATEMENT PART A FOR**

### Field Test for the Second National Household Food Acquisition and Purchase Survey (FoodAPS-2)

Food Economics Division
Economic Research Service
US Department of Agriculture
1400 Independence Avenue, SW, Mail Stop 1800
Washington, DC 20250-1800
Phone: 202-694-5398

Fax: 202-694-5661

E-mail: jeffrey.gonzalez@usda.gov

# **Table of Contents**

<u>Section</u>		<u>Page</u>
Part A.	Justification	1
A.1	Circumstances Making the Collection of Information Necessary	
	1	
A.2	Purpose and Use of the Information	3
A.3	Use of Information Technology and Burden Reduction	10
A.4	Efforts to Identify Duplication and Use of Similar Information 12	
A.5	Impact on Small Businesses or Other Small Entities	13
A.6	Consequences of Collecting the Information Less Frequently 14	
A.7	Special Circumstances Relating to the Guidelines of 5 CFR 1320	).5
A.8	Responses to the Federal Register Notice and Efforts to Contac	ct
Outside		
	Agencies	16
A.9	Explanation of Any Payment or Gift to Respondents	20
A.10	Assurance of Confidentiality Provided to Respondents	25
A.1	1 Justification for Sensitive Questions	26
A.12	2 Estimates of Respondent Burden Including Annualized Hourly27	Costs
A.1	B Estimates of Other Total Annualized Cost Burden	36
A.1	4 Annualized Cost to the Federal Government	37
A.1	Explanation for Program Changes or Adjustments	37
A.10	6 Plans for Tabulation and Publication and Project Time Schedul	е
A.1	7 Reason Display of OMB Expiration Date Is Inappropriate	39
	B Exceptions to Certification for Paperwork Reduction Act	-
	sions	39
Referer		40

### **Attachments**

- A. Section 2204 of 7 U.S.C. Agriculture of the Food and Nutrition Act of 2008
- B. Recruitment Screener
- B1. Web Screenonshots for Recruitment Screener
- C1. Introductory Letter
- C2. First Nonresponse Letter
- C3. Postcard Nonresponse
- D1. In-person Screening Advance Letter
- D1a. In-person Screening Advance Letter for Recruitment Screener Nonrespondents
- D2. Interviewer Authorization Letter
- D3. Gated Community Letter
- D4. Refusal Conversion Letter
- D5. Frequently Asked Questions and Responses
- E. In-person Household Screener
- F1. Household Consent Form and Disclaimer
- F2. Parental Consent Form
- F3. Individual Assent/Consent Form
- G. Initial Household Interview
- H1. NFS Field Test Overview (Interviewer Training)
- H2. Contacting Procedures (Interviewer Training)
- H3. Data Collection (Interviewer Training)
- H4. Equipment (Interviewer Training)
- H5. Mobile Device User Guide (Interviewer Training)
- H6. Quality Control (Interviewer Training)
- H7. Report Calls (Interviewer Training)
- H8. Administrative Procedures (Interviewer Training)
- 11. How to Connect a Mi-Fi & Barcode Scanner
- 12. Household Equipment Form
- 13. Downloading and Installing the FoodLogger, Accessing the Food Log, and Survey Concepts
- J. Profile Questionnaire
- 11. Screenshots of FoodLogger Version of Profile Questionnaire
- 12. Web Screenshots for Profile Questionnaire

- K. Interviewer Observations
- L. Income Questionnaire
- L1. Screenshots of FoodLogger Version of Income Questionnaire
- L2. Web Screenshots for Income Questionnaire
- M. Memory Jogger
- N. Electronic Text and e-mail Communications
- O. Debriefing Interview
- P. Completed OMB Form 83-i<sup>1</sup>
- Q. What To Report and What Not To Report Handout
- R1. Food Log Questionnaire
- R2. Screenshots of FoodLogger Version of Food Log
- R3. Web Screenshots of Food Log
- S1. 60-day FRN Comment #1
- S2. 60-day FRN Comment #2
- S3. 60-day FRN Comment #3
- S4. 60-day FRN Comment #4
- S5. 60-day FRN Comment #5
- S6. 60-day FRN Comment #6
- S7. 60-day FRN Comment #7
- S8. 60-day FRN Comment #8
- S9. 60-day FRN Comment #9
- S10. 60-day FRN Comment #10
- S11. November 2021 60-day Federal Register Notice (FRN) Comment #1
- S12. November 2021 60-day Federal Register Notice (FRN) Comment #2
- S13. November 2021 60-day Federal Register Notice (FRN) Comment #3
- U. Final Analysis Report and Recommendations for Revisions to the FoodLogger from the First Round of Usability Testing
- V1. Welcome to NFS Video Script
- V2. Getting Started Video Script
- V3. Entering Grocery Store Food and Drink Video Script
- V4. Entering Restaurant Food and Drink Video Script
- V5. Completing Profile and Income Questionnaire Video Script
- V6. Completing the Day Overview Video Script
- V7. Grocery Store Purchase Video Script

<sup>&</sup>lt;sup>1</sup> This attachment is for internal processes only and is not included in the final Information Collection Request (ICR) submission to the Office of Management and Budget (OMB).

V8.	How to Report Meals from a Fast Food Restaurant Video Script	
Χ.	Final Analysis Report and Recommendations for Revisions to the	
	FoodLogger from the Second Round of Usability Testing	
Y1.	60-day Federal Register Notice (FRN) - July 2019	
Y2.	60-day Federal Register Notice (FRN) – November 2021	
Z.	Summary of Comments from the National Agricultural Statistics	
	Service's (NASS) Review of the Information Collection Request (ICF	₹)
<u>Table</u>	<u>es</u> <u>F</u>	Pa <u>c</u>

<u>rabies</u>		Page
Table A.1.	Leveraging the Full Functionalities of Computerization	12
Table A.2.	Individuals consulted on the statistical and data collection	
a	spects of this	
	collection	19
Table A.3.	Incentives for FoodAPS-1	21
Table A.4.	Incentives for the ADCM Pilot	21
Table A.5.	Incentive Plan for the FoodAPS-2 Field Test (Control Group) 22	)
Table A.6.	Incentive Plan for the FoodAPS-2 Field Test (Treatment Gro	oup)
Table A.7.	Average Number of Reported Food Events by Study Day 24	
Table A.8.	Field Test respondent burden and cost estimate	36
Table A 9	FoodAPS-2 Schedule	38

### Part A. Justification

# A.1 Circumstances Making the Collection of Information Necessary

Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Reference the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA) is seeking the approval of the Office of Management and Budget (OMB) to conduct a Field Test for the Second National Household Food Acquisition and Purchase Survey (FoodAPS-2) (aka the National Food **Study** to respondents in the field). The mission of ERS is to anticipate trends and emerging issues in agriculture, food, the environment, and rural America and to conduct high-quality, objective economic research to inform and enhance public and private decision making. To achieve this mission, ERS requires a variety of data that describe agricultural production, food distribution channels, availability and price of food at the point of sale, and household demand for food products. In 2009 ERS sponsored the National Household Food Acquisition and Purchase Study (FoodAPS-1), fielded in 2012, to support these data needs. In 2016 ERS sponsored the Alternative Data Collection Method (ADCM) Pilot<sup>2</sup>, fielded in 2017, to inform the sample design and data collection method(s) for FoodAPS-2. ERS and the Food and Nutrition Service (FNS) of USDA are now sponsoring FoodAPS-2. ERS and FNS's plan is to collect data for the FoodAPS-2 Field Test over a four-month period in 2022. The full survey would then start in 2023. This current submission is for the **Field Test only**.

<sup>&</sup>lt;sup>2</sup> The Alternative Data Collection Method (ADCM) Pilot was also known as The National Food Study Pilot. For background information on the ADCM Pilot, see https://www.reginfo.gov/public/do/PRAViewICR?ref\_nbr=201608-0536-001

Section 2204 of 7 U.S.C. - Agriculture of the Food and Nutrition Act of 2008 provides legislative authority for the FoodAPS-2 data collection (Attachment A).

FoodAPS-1 was the first nationally representative survey of American households to collect comprehensive information about food purchased or otherwise acquired. Availability of FoodAPS-1 data in both restricted and public-use format has spurred a large number of valuable research projects. USDA now has a need for updated information on the food acquisition behaviors of American households. Local food environments, Federal (and State) food assistance programs and eligibility requirements, the composition of American households, and the tastes and preferences for food and nutrition knowledge have changed since 2012 when FoodAPS-1 was implemented. With FoodAPS-2, ERS is seeking to build on the successes of FoodAPS-1 and improve data collection quality and efficiency.

In addition, FoodAPS-2 includes a change in the sampling design increasing the number of WIC<sup>4</sup> participants expected to be in the sample. This oversampling of WIC households will allow for analyses of their acquisition patterns, food access, nutrition status, and maternal and child health in comparison to other populations.

Unlike in FoodAPS-1, most respondents in FoodAPS-2 will use a native smartphone application (named FoodLogger) to record daily information about food acquisitions. This change of data collection mode is expected to reduce respondent burden, improve data quality, and reduce data processing costs. The primary goal of the Field Test is to evaluate and finalize main survey design procedures and data collection protocols for Full Survey data collection, with the exception of the final interview. The planned final interview for the Full Survey data collection will be replaced with a debriefing interview to collect data from Field Test participants on their experiences with the new native smartphone app designed to reduce

<sup>&</sup>lt;sup>3</sup> A listing of these research projects and publications is available at the FoodAPS webpage of ERS's website, which also includes other information about the survey and how to access the data. See https://www.ers.usda.gov/foodaps.

<sup>&</sup>lt;sup>4</sup> WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children.

respondent burden. The debriefing interview will facilitate the evaluation of the FoodLogger.

The implementation of the Field Test will also aim to create a database that allows the following research question to be answered: What is an optimal incentive strategy among strategies considered that will stem the drop-off in reporting across the week? It is critical to the success of FoodAPS that respondents complete the Food Log each day of the data collection week. Both FoodAPS-1 and the National Food Study (NFS) Pilot<sup>5</sup> suffered from reporting attrition throughout the data collection week; a goal for the Full Survey is to reduce this attrition rate and to minimize the potential for nonresponse bias. Therefore, the Field Test will include an incentive experiment that varies the amount of incentive a respondent can receive for Food Log completion during the week. To evaluate the effectiveness of this protocol, a split sample incentive design is proposed. The incentives experiment is described in more detail in Supporting Statement Part B.

### A.2 Purpose and Use of the Information

Indicate how, by whom, how frequently, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The mission of ERS is to anticipate trends and emerging issues in agriculture, food, the environment, and rural America and to conduct high-quality, objective and timely economic research to inform and enhance public and private decision making.

To achieve its mission related to food issues that face the Nation, ERS provides critical economic analyses and statistics on key aspects of the determinants of food choices and behaviors of consumers in various income

<sup>&</sup>lt;sup>5</sup> The National Food Study Pilot was also known internally at USDA as the Alternative Data Collection Method (ADCM) Pilot. For background information on the ADCM Pilot, see https://www.reginfo.gov/public/do/PRAViewICR?ref\_nbr=201608-0536-001.

groups. An important aspect of ERS's mission in the area of food economics focuses on understanding the interplay between consumer food choices and food assistance programs like WIC and SNAP (Supplemental Nutrition Assistance Program).

Prior to FoodAPS-1, analysis of how USDA's policies and programs influence households' food choices had been hampered by gaps in existing data. A number of existing databases contained data relevant to ERS's research needs, but each disparate data source contained some, but not all, of the relevant data. Further, few data sources oversampled households with SNAP-participants or other low-income households to enable robust comparisons of food acquisition patterns between these two groups that are important to both FNS and ERS for program evaluation and policy analysis. FoodAPS-1 is the only data source that extensively integrated external data sets to verify self-reported SNAP participation and to characterize the local food environment (e.g., numbers, types and locations of retail food locations).

The expected time between FoodAPS-1 and FoodAPS-2 will be about 10 years. As mentioned in our response to A.1, the structure of the U.S. food economy has changed dramatically over the last decade. According to the Department of Labor, approximately 21 percent of the household food budget was spent away-from-home in 1960-61. That share had increased to 43 percent in 2019.<sup>6</sup>

Key data users of FoodAPS-1 include the White House and USDA policy officials; the U.S. Congress; program administrators/managers; other Federal agencies; State and local government officials; and various organizations, including farm and industry groups interested in or responsible for public policy issues. In addition, academic researchers have often used the data from FoodAPS-1 to describe food acquisition patterns among population subgroups and explore hypotheses about the interplay between food market vendors and consumers, how food acquisition patterns affect food security

<sup>&</sup>lt;sup>6</sup> Calculated from aggregate expenditures listed in Table 1800. Region of residence: Shares of annual aggregate expenditures and sources of income, Consumer Expenditure Survey, 2019, at https://www.bls.gov/cex/2019/aggregate/region.pdf.

and health, and the role of Federal nutrition programs in promoting healthful eating on limited budgets.<sup>7</sup>

FoodAPS-1 data either have or are currently being used by these clientele to support research on:

- Concurrent information about food purchased for preparation at home and food prepared outside the home,
- Food obtained for free.
- Food obtained by all household members,
- The nutrient content of acquired food,
- The cost of purchased food and the types of resources used (e.g., cash, credit or debit, program benefits, coupons and discounts),
- Characteristics about the places where food is obtained, and
- A comparison of SNAP-participant food acquisitions to nonparticipant acquisitions.

Using findings from FoodAPS-1, an article by ERS staff for *Food Policy*<sup>8</sup> identified areas where more attention might be needed in future surveys such as FoodAPS-2. Modifications to the proposed FoodAPS-2 Field Test instruments and protocols took into consideration recommendations from this article. Specifically, the Field Test will improve on the following items:

- The Field Test will use an electronic food diary, accessible both via an Internet browser and through a native smartphone application, instead of hard copy paper diaries to reduce response burden and improve data quality.
- The electronic food diary survey, also referred to as the Food Log, will gather information about the local diversity of food products (e.g., ethnic foods, foods with private market labels).

<sup>&</sup>lt;sup>7</sup> See https://www.ers.usda.gov/foodaps for a listing of research projects. The website also has data visualizations accessed by users at

https://www.ers.usda.gov/data-products/foodaps-national-household-food-acquisition-and-purchase-survey/interactive-charts/.

<sup>&</sup>lt;sup>8</sup> Kirlin, John A., and Mark Denbaly, "Lessons Learned from the National Household Food Purchase and Acquisition Survey in the United States," *Food Policy*, Elsevier, vol. 72(C), pages 62-71.

- The food diary will facilitate a fuller understanding of food demand in the United States, by gathering more detail on food obtained for free.
- A redesigned income questionnaire will improve on FoodAPS-1's ability to capture gross earnings. In FoodAPS-1, nearly half of all respondents reported net rather than requested gross earnings.
- FoodAPS-2 will use geographical information technology to capture better information about the local food environment (e.g., locations of retail food locations), adding substantial value to research.
- At the conclusion of FoodAPS-2, we will work with SNAP and WIC agencies to match survey data to administrative sources (not planned for the Field Test).

The Field Test data collection will be conducted in English. Following the Field Test, if needed, we will make adjustments to the study design for the Full Survey and modify the data collection instruments. The revised data collection instruments will also be translated to Spanish.

As explained more fully in Part B the sample design of the National Food Study (NFS) Pilot<sup>9</sup> will be utilized. The NFS Pilot, also known as the Alternative Data Collection Method (ADCM) Pilot, was conducted by Westat on behalf of ERS in 2016 and sought to build on FoodAPS-1 and improve the efficiency of the data collection approach for the next administration of the survey. The NFS Pilot leveraged the lessons learned from FoodAPS-1 and moved the data collection about housedhold food purchases and acquisitions from a paper diary to a web-based system<sup>10</sup>. The Field Test represents the next step toward improving the efficiency of the data collection approach for the next administration of the survey, namely a smartphone application.

Specific details about the sample design of the NFS Pilot are provided in Part B, but for the present discussion each household recruited for the Field Test will fall into one of four target groups: households with one or more members currently participating in SNAP; households with at least one WIC participant and no SNAP participants; non-SNAP non-WIC households with total income

6

<sup>&</sup>lt;sup>9</sup> The National Food Study Pilot known internally at USDA as the Alternative Data Collection Methiod (ADCM) Pilot. For background information on the ADCM Pilot, see https://www.reginfo.gov/public/do/PRAViewICR?ref\_nbr=201608-0536-001.

at or below 130 percent of the Federal Poverty Guideline (FPG); and non-SNAP non-WIC households with total income above 130 percent of the FPG.

The bullets that follow provide an overview of the data collection methodology for the Field Test. The instruments, letters, and forms that will be shared with respondents are provided as Attachments.<sup>11</sup>

All sampled households, except for those selected from existing SNAP lists from the ADCM Pilot, will be mailed a **recruitment screener** (Attachment B), also referred to as a mail screener, with accompanying **introductory letter** (Attachment C1) and a \$5 cash incentive. Non-respondents will receive the same questionnaire a second time and a slightly **different letter** (Attachment C2) but with no incentive. Non-respondents to the first two mailings will receive a **post-card** (Attachment C3) with information on how to access the recruitment questionnaire on the web (Attachment B1), which is identical to the mail-in recruitment screener.

For households returning a completed recruitment screener or completing the web-based questionnaire, their eligibility to participate in the Field Test will be based on their responses to the questions regarding household size, total household income, and participation in SNAP or WIC and the extent to which the test's four target groups have already met their quotas. These four target groups are: households with at least one member an active participant in SNAP; households with at least one member an active participant in WIC; households with income below 130 percent of the Federal Poverty Guidelines (FPG) with no members participating in either SNAP or WIC; and all other households (i.e., households with income equal to or above 130 percent of the FPG with no members participating in SNAP or WIC).

The mail-in recruitment screener also asks several questions about general food acquisition patterns and food security to support analyses of possible non-response bias.

■ Households selected for **in-person screening** will receive an advance letter (Attachments D1 and D1a<sup>12</sup>) alerting the household to the interviewer's forthcoming visit. Compared to FoodAPS-1 and the ADCM Pilot, the FoodAPS-2 Field Test plans to use additional

<sup>&</sup>lt;sup>11</sup> The Field Test for FoodAPS-2 will be conducted in English only.

<sup>&</sup>lt;sup>12</sup> Households that completed the recruitment screener and are selected for in-person screening will receive Attachment D1 while households that have not completed the recruitment screener but are selected for in-person screening will receive Attachment D1a.

tools to gain the cooperation of households. These include: a personalized Interviewer Authorization Letter (Attachment D2), signed by ERS, indicating the interviewer is authorized to collect data for the USDA, a Gated Community Letter (Attachment D3) that will be used to gain access into locked buildings and gated communities, a Refusal Conversion Letter (Attachment D4) that will be sent to households who refused to participate prior to an attempt at in-person refusal conversion, and a list of Frequently Asked Questions and Responses (Attachment D5) that will be available to respondents on the NFS website and is designed to address common questions.

- Next, interviewers, who are trained on survey concepts and data collection procedures via a series of **interviewer training manuals** (Attachments H1—H8), will visit the household to administer the **In-Person Household Screener** to an adult household member via a computer-assisted personal interview (CAPI) (Attachment E). The screener interview determines the household's eligibility to participate in the survey based on household size, income, and participation in SNAP or WIC and also asks some general questions about household food spending patterns. During this visit **interviewers will record observations** (Attachment K) about the neighborhood and residential exterior. These interviewer observations will be collected to support analyses of potential non-response bias.
- If the household is found to be eligible, the interviewer will ask the adult respondent to read through the study's Household Consent Form and Disclaimer (Attachment F1), address any questions the respondent may have, and then request that the respondent sign it. A hard-copy version of the Household Consent Form and Disclaimer (Attachment F1) will be provided to and left with the household so that each household member can consult and review the disclaimer at any point during the study period. The interviewer will then ask to speak with the primary respondent (i.e., the main food shopper or the meal planner) and will then administer the **Initial Household Interview** (Attachment G), which is a CAPI. The primary purpose of the Initial Household Interview is to build a roster of all household members and their ages. This information will determine the data collection instruments that will need to be filled out by different household members (as discussed below). This interview also asks about food sharing groups (people who purchase and prepare meals together) within the household (to better understand food acquisition patterns) and participation status in federal food assistance programs.

- Following completion of the Initial Household Interview, the interviewer will train the primary respondent (PR) and any other household members who are present in how to use the FoodLogger app or the Food Log website to record information about all acquisitions of food and drink during the week. The training will follow a series of **Respondent Training Scripts** (Attachments V1 —V6) which includes showing training videos on the interviewer's laptop. Interviewers will also supply a What To Report and What **Not To Report** handout (Attachment Q) to assist respondents in filling out their food logs during the week. This training on the Foodlogger and Food Log website covers the training on the **Food** Log (Attachment R1), Profile (Attachment I), and Income (Attachment L) **Questionnaires**. The training on the FoodLogger and Food Log website also includes supplemental videos (Attachment V7 and V8), which are not required trainings, but are intended to provide additional instruction to respondents on how to enter grocery and restaurant meal acquisitions in their Food Logs.
- Participants will be asked to complete the Profile Questionnaire and report their income via the Income Questionnaire once during the 7-day data collection period; the Food Log will be completed daily for a week. Household members will be able to access these three forms from their own devices via the FoodLogger app or the Food Log website. Households without the necessary equipment will be provided free use of a smartphone and/or a laptop, barcode scanner, and MiFi<sup>13</sup>. Instructions for **How to Connect a Mifi &** Barcode Scanner (Attachment I1) will be provided to households receiving these pieces of equipment. All equipment loaned to participating households will be accompanied by a signed Household Equipment Form (Attachment I2) documenting the equipment loaned, password and PIN information for using the equipment, and guidelines for equipment usage. Additional information and instructions on **Downloading and Installing the** FoodLogger, Accessing the Food Log, and Survey Concepts (Attachment I3) will be provided to households during their training and left with the household to refer to during the study week.
- For households unwilling or unable to use the smartphone app, they will be allowed to access the NFS website—maintained by Westat, ERS' contractor for the Field Test, for the duration of the Field Test—to enter information about their food acquisitions, and to complete their Profile Questionnaire and Income Questionnaire (the latter for those over 16 years of age). The NFS website will have separate pages for completing the Profile

9

 $<sup>^{13}</sup>$  A MiFi is a wireless router that acts as a mobile Wi-Fi hotspot providing Internet to the household.

Questionnaire, the Income Questionnaire, and a **seven-day food log** diary for daily reporting of food acquisitions. The structure of the Food Log instrument on the website will match that of the FoodLogger. When we use the generic term "food log", we are referring to either the FoodLogger or the web-based entry system.

If the PR does not believe that he or she could, after training, properly use the FoodLogger or the NFS website to enter information about food acquisitions, the interviewer will thank them for their time and say that they will be contacted by a telephone interviewer within a couple of days. The telephone interviewer will explain that the household can still participate in the field test by participating in three telephone interviews during the fielding week. During those calls the PR would provide the same information that is described below for households using the FoodLogger or website, although the PR would be responding for all household members and the telephone interviewer will input the information directly into the Food Log.

It will be possible for different members of a household to use different modes for entering data.

The Initial Household Interview will have enumerated all members of the household and identified household members eligible for the **Profile Questionnaire** (see Attachments J, J1, and J2 for the questionnaire, FoodLogger version, and web version, respectively), the **7-day Food Log** Questionnaire (see Attachments R1, R2, and R3 for the questionnaire, FoodLogger version, and web version, respectively), and the **Income Questionnaire** (see Attachments L, L1, and L2 for the questionnaire, FoodLogger version, and web version, respectively) collection. If the household has minors, the interviewer will ask an adult household member to consent for minors (Attachment F2) between the ages of 11 and 18 to access the instruments (Food Log, Profile Questionnaire, Income Questionnaire (for ages 16 and over)) themselves. In addition, when participants access the food log for the first time, they will be presented with all legally required disclaimer information, i.e., the same information as provided on the Household Consent and Disclaimer Form, and will need to agree to take part in the study (see Attachment R2 pages 1-5 for the presentation of consent and disclaimer information to the participant in the FoodLogger and Attachment R3 pages 3 and 4 for the corresponding information in the web version of the Food Log). A complete copy of the individual consent/assent form is provided in Attachment F3. When needed, the PR or his or her designee will report for all minors, those below

- age 11 and those for whom consent is not provided to access the Food Log. The Food Log will be completed daily for a week by each member with access to the FoodLogger or the NFS website.
- If the household is unable to use the study's website, the household will be offered the opportunity to participate in the Field Test by telephone. For the subset of these households that agree to participate by telephone, we will ask the primary respondent to use a **Memory Jogger** (Attachment M) to keep track of food obtained. We will also speak to the PR by phone on average about three times during the 7-day period to complete the household's profile questionnaires, income questionnaires, and food logs.<sup>14</sup>
- All eligible household members (those who agreed to and provided cell phone numbers or email addresses) will be sent electronic text or e-mail communications (Attachment N) with regard to their food logging status and the amount of incentive accumulated. Households suspected to be underreporting (identified by modeling information reported during the Initial Interview in conjunction with Food Log entries through day 3) will be contacted by interviewers on day 4 of their 7-day data collection period to discuss any issues or problems that they might be experiencing completing the Food Log and encourage participation.
- At the end of the 7-day data collection period, the interviewer will visit the household to complete a **Debriefing Interview** (Attachment O) via CAPI. During this visit, interviewers will:
  - o Administer the Debriefing Interview to the PR. The debriefing instrument is designed to elicit information about how easy or difficult it was for the PR to use the Food Log to report food detailed information about acquisition events. As such, responses to the Debriefing Interview will be used in assessing the suitability of using a smartphone app or a website to collect food acquisition information in the future FoodAPS-2 Full Survey.
  - Collect any study equipment (smartphone, laptop, MiFi) loaned to the household and any food or restaurant receipts and materials such as school menus that respondents have saved; and
  - o Provide the household with information on the amount of the incentives earned. The PR will receive an incentive check (reflecting the total incentives amount accumulated across

11

<sup>&</sup>lt;sup>14</sup> During these phone calls, telephone interviewers will enter reported information using the NFS website pages.

household members) within one week of returning any loaned equipment and completion of the Debriefing Interview.

An attempt will be made to administer the **Debriefing Interview** (Attachment O) to households that are found survey-eligible during the in-person screener but then either do not agree to participate in the study or who drop out after initial agreement, with a primary intent of determining why they chose not to continue with the study.

The data that are reported during the Field Test will be used to evaluate and finalize the main survey design procedures and data collection protocols for the FoodAPS-2 Full Survey. The Field Test will include the implementation of the new native smartphone application, FoodLogger, and will help detect any problems that may arise in the planned survey design and data processing systems. It will provide an opportunity to obtain current data on survey costs and to estimate population variances. Finally, the data will be used to determine the relative effectiveness of two different incentive schemes for encouraging continued reporting of food events throughout the entire fielding week.

Eventually, for the Full Survey, collected data will be used to support numerous research projects by ERS and FNS staff, other government agencies, and academic institutions. We noted at the beginning of this section how the data from FoodAPS-1 have been used, and we expect data from FoodAPS-2's Full Survey to support a similar breadth and depth of research into the factors that affect household decisions about what foods and drink to acquire, when, and where.

## A.3 Use of Information Technology and Burden Reduction

Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also,

### describe any consideration of using information technology to reduce burden.

ERS is committed to compliance with the E-Government Act, 2002. In FoodAPS-1, the food acquisition data were collected using paper diaries and reported via telephone three times during the 7-day data collection window. The paper diaries were completed by each household member age 11 or older, or by the PR for all members age 10 or below. The paper diaries were supplemented by handheld barcode scanners. The handheld scanners were used to scan the universal product codes (UPCs, or barcodes) to obtain item descriptions when possible. The diaries and paper receipts of acquisitions were collected during a final in-person interview. FoodAPS-1 also asked household members 16 and older to use a paper worksheet to record their income. The primary respondent could then use the worksheet to answer income questions during the final interview.

In 2016, ERS implemented the ADCM Pilot. A primary objective of the Pilot was to propose and evaluate an alternative data collection method (ADCM) to collect more accurate data on the prices and quantities of all food items acquired from all members of sampled households over a 7-day period while reducing respondent burden. The food log, profile questionnaire and income worksheet instruments used in the ADCM Pilot were completed by accessing the study's website using smartphones, computers and tablets and did not require study participants to carry paper diaries for a week and jot down product details as in FoodAPS-1. Instead, participants used smartphones to scan the barcodes of products in stores, at home, or at the office. A successfully scanned barcode that was in the product lookup database provided a description and size or weight of the product. For these items, respondents only had to provide limited information such as the price of the item. Households with no smartphones or Internet connectivity were loaned an iPhone or MiFi device for the duration of their participation. Participants could also choose to use a desktop computer or tablet with a handheld scanner to complete their 7-day food log.

For the FoodAPS-2 Field Test, USDA plans to build on the technology used in the ADCM Pilot. Table A.1 provides a summary listing of how we plan to

leverage computerization to increase automation, improve data quality, and further reduce respondent burden across all instruments. In the bullets below we highlight a few key areas where the use of technology will reduce burden while improving data quality.

- As in the ADCM, FoodAPS-2 Field Test participants will be able to use smartphones, desktop computers, or tablets to scan product barcodes. However, we plan to improve the product lookup databases to increase the likelihood of a match. To accomplish this we plan to use multiple databases containing both food-at-home (FAH) UPCs and food-awayfrom-home (FAFH) restaurant databases.
- For items where we are unable to find a match in the lookup databases, we will use type-aheads and drop-down menus to reduce the amount of information the participant has to enter.
- Respondents who choose to enable all the smartphone features and use a smartphone to complete the Food Log will no longer have to enter the address of all locations (home, work, grocery stores, restaurants). Instead, we will use Google Place and Nutritionix APIs to suggest possible matches that they can select to record the complete address of locations.

Table A.1. Leveraging the Full Functionalities of Computerization

Instrum ent	Data Elements	How computerization helps
Screeners	Case ID	<ul> <li>Case IDs are passed to the instrument, eliminating errors from interviewers' manual entry</li> <li>Determine household eligibility in real-time using income and program participation</li> </ul>
Income	Household size, household income	<ul> <li>Household size information used to populate customized income brackets for determining poverty level in in-person screening instrument</li> <li>Both pieces of information can be passed to other instruments (e.g., Initial Interview, Food Log)</li> </ul>
Initial Interview	Usually frequented food store name + location	<ul> <li>Google Maps to offer autofills on names and addresses</li> <li>Store names and addresses are passed to the Food Log</li> </ul>
Profile questionnai re	Height, weight, BMI	<ul> <li>BMI automatically calculated based on reported height and weight</li> <li>Soft edit checks on the calculated BMIs verify outlying BMIs</li> <li>When respondent refuses to report weight, provide ranges of weight based on reported height that correspond to underweight, normal, overweight, and</li> </ul>

Instrum ent	Data Elements	How computerization helps
		obese
Food Log	Store name + location	<ul> <li>Auto-detected stop locations are used in conjunction with data from Google Place and Nutritionix APIs to offer autofills on names + addresses</li> </ul>
Food Log	Barcode scanning	<ul> <li>When scanned barcodes match to an item in one of the look-up databases, Food Log displays item description</li> <li>When barcodes do not match, Food Log asks respondent to provide item description through other means (e.g., Price Look-up Codes (PLUs), type-ahead, and free text entry)</li> </ul>
Food Log	Place type classification	<ul> <li>Food Log automatically classifies place type based onGoogle tags</li> <li>When type cannot be reliably classified, Food Log asks respondent to classify the food place as FAH or FAFH</li> </ul>
Food Log	Type ahead and drop-down menus	<ul> <li>Use Nutritionix as reference databases for type-ahead and drop-down menus for FAFH food item identification</li> </ul>

## A.4 Efforts to Identify Duplication and Use of Similar Information

Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purpose described in item 2 above.

Every effort has been made to avoid duplication. The data requirements for FoodAPS-2 Field Test have been carefully reviewed to determine whether the needed information is already available. To our knowledge, there is no similar information already available or being collected for the study's timeframe that collects detailed information on food acquisitions at home and away from home and program participation. Even though the Consumer Expenditure Interview Survey (CE) collects expenditures on food and drinks, CE is not collecting free food acquisitions, which is an essential goal for FoodAPS-2 Field Test. The National Health and Examination Survey (NHANES) collects information on diet behavior and nutrition, but the FoodAPS-2 Field Test has a broader focus and covers acquisition of food actually consumed as well as food not consumed acquired during a set period.

The FoodAPS-2 Field Test will also collect labor force information, food security status, and income from sampled households. Even though the Current Population Survey Food Security Supplement (CPS-FSS) is the source of national and State-level statistics on food insecurity used in USDA's annual reports on household food security, there is an analytic need to collecting this information for every respondent in the FoodAPS-2 Field Test. Individual level measurement of this information from a nationally-representative sample is essential to understanding the factors that influence household food choices and to providing a comprehensive picture on health and obesity, hunger, and nutrition assistance policy.

To reduce duplication, during the ADCM Pilot we conducted a literature search to research optimal ways to obtain income amounts and sources. Informed by the literure review, we developed and tested new questions to caputure income amounts and sources that met the needs of ERS. We will use them during the FoodAPS-2 Field Test to yield more accurate results while reducing item nonresponse and improving completion rates. These questions are not used in other surveys, to our best knowledge.

For households with multiple household members who eat out together, we plan to minimize duplication by asking one household member to report the food event

## A.5 Impact on Small Businesses or Other Small Entities

If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The FoodAPS-2 Field Test is targeting residential households. We are not collecting information from small businesses or other small entities.

### A.6 Consequences of Collecting the Information Less Frequently

Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

Findings from FoodAPS-2 will be available a little over 10 years after the implementation of FoodAPS-1. In the ensuing period, the structure of the U.S. food economy has changed. Food acquisition behaviors have changed in response to changing markets and household structure, laborforce participation and other factors. In 2019 the average household spent 11.7 percent of their income after taxes on food and 43 percent of their food budget on food away from home.<sup>15</sup>

The Centers for Disease Control and Prevention reports that about 38 and 17 percent of American adults and youth, respectively, are obese<sup>16</sup>. Early research suggested an association between the food environment and obesity and other diet-related diseases.<sup>17</sup> Neighborhoods that lack access to a retailer that sells healthy and affordable food have been of particular concern for research and policy-making.<sup>18</sup> Recent research, however, shows that households exhibit a great deal of choice in where they acquire food and what they purchase, suggesting that the relationships among the food environment, foodstore access, and diet-related health are not straightforward.<sup>19</sup> Food insecurity and food assistance program participation

Calculated from aggregate expenditures listed in Table 1800. Region of residence: Shares of annual aggregate expenditures and sources of income, Consumer Expenditure Survey, 2019, at https://www.bls.gov/cex/2019/aggregate/region.pdf. (visited *December 29, 2020*).
 Ogden CL, Carroll MD, Fryar CD, Flegal KM. Prevalence of obesity among adults and youth: United States, 2011-2014. NCHS data brief, no 219. Hyattsville, MD: National Center for Health Statistics. 2015.

<sup>&</sup>lt;sup>17</sup> Larson, N.I., M.T. Story, and M.C. Nelson (2009). "Neighborhood environments: Disparities in access to healthy foods in the U.S." *American Journal of Prevention Medicine*, 36(1): 74-81.e10.

<sup>&</sup>lt;sup>18</sup> For example, the Federal Government's Healthy Food Finance Initiative, administered through the Treasury Department, Department of Health and Human Services and Department of Agriculture, has awarded over \$162 million in grants to address shortcomings in store access for neighborhoods and populations.

<sup>&</sup>lt;sup>19</sup> See, for example: Dubowitz, T., M. et al. (2015); Rahkovsky, I. and Snyder, S. (2015); and Ver Ploeg, M. et al. (2015).

also have been cited as factors in the growing obesity epidemic. USDA will be in a better position to analyze these relationships if it has access to current, accurate data on household food acquisition, food security, and the food prices and availability of healthful and less-healthful foods.

There is also special interest in food demand among low-income households. At some point during the year, about one in four Americans participates in at least one of USDA's 15 domestic food and nutrition programs.<sup>20</sup> It is critical for USDA to get updated information to better understand the food acquisitions of low-income, program-eligible households in order to better serve this segment of the population with efficient and effective programs.

The above paragraphs explain the need for the full FoodAPS-2 survey. The full survey, however, cannot be undertaken without first conducting the Field Test. The development and use of a new, native smartphone application for data collection needs to be tested in a real survey environment before the full survey.

## A.7 Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

Explain any special circumstances that would cause an information collection to be conducted in a manner:

- Requiring respondents to report information to the agency more often than quarterly;
- Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;
- Requiring respondents to submit more than an original and two copies of any document;
- Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than 3 years;

<sup>&</sup>lt;sup>20</sup> Oliveira, Victor. "The Food Assistance Landscape: FY 2016 Annual Report," EIB-169. U.S. Department of Agriculture, Economic Research Service, March 2017.

- In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;
- Requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or
- Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

There are no special circumstances relating to the guidelines of 5 CFR 1320.5. This request fully complies with 5 CFR 1320.5.

# A.8 Responses to the *Federal Register* Notice and Efforts to Contact Outside Agencies

If applicable, identify the date and page number of publication in the *Federal Register* of the agency's notice, soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting form, and on the data elements to be recorded, disclosed, or reported.

ERS published a notice on November 1, 2021 in the Federal Register, Document Citation: Volume 86, No. 208 November 1, 2021, pages 60198-60200, Document Number: 2021–23655 (Attachment Y2). The 60-day period for public comments ended January 3, 2022.

ERS received 3 comments on the November 1 Federal Register Notice. Each comment is summarized below, followed by the ERS response. The full text of each comment is provided in a series of Attachments S11—S13.

**Comments #1 and #3**: The first and third commentors requested copies of the documents planned for the data collection. Mr. Gonzalez replied to each request in January 2022, and his responses are included with each request.

**Comment #2**: The second commentor said that the Federal government should not be wasting taxpayer dollars on this survey.

#### **USDA** Response:

"USDA believes that Federal policy should be empirically-driven, and that survey data are needed to help Federal food assistance and nutrition agencies and policy makers improve programs designed to improve the nutrition and health of low-income households."

ERS also published a notice on July 15, 2019 in the Federal Register, Document Citation: Volume 84, No. 135 July 15, 2019, pages 33735-33737, Document Number: 2019–14937 (Attachment Y1). The 60-day period for public comments ended September 13, 2019.

ERS received ten comments on the July 15 Federal Register Notice. Each comment is summarized below, followed by the ERS response. The full text of each comment is provided in a series of Attachments S1—S10.

**Comment #1**: The first commentor said that the language of the document was too complex. It is unclear whether the instruments for the planned Field Test or the *Federal Register Notice* itself was being referenced. As for the instruments, USDA responds as follows:

### USDA Response:

"The questions for the planned Field Test have all either been used previously in similar surveys with similar respondent populations or cognitively tested, or both. In addition, the FoodLogger app has been tested for useability by [Census], and this useability testing included an assessment of question wording and complexity. USDA believes that question wordings in the survey instruments and instructions are appropriate for the planned respondent universe."

**Comment #2**: The second commentor said that the Federal government should not be wasting taxpayer dollars on this survey and should not be offering respondents an incentive to complete the survey.

#### **USDA** Response:

"USDA believes that Federal policy should be empirically-driven, and that survey data are needed to help Federal food assistance and nutrition agencies and policy makers improve programs designed to improve the nutrition and health of low-income households. Further, providing an incentive to respondents has been shown to increase survey response rates, thereby improving data quality and lowering overall survey costs. The Field Test itself will include an experiment to provide information to help determine the best way to both encourage sampled households to participate and, once participating, to encourage participation throughout the 7-day fielding period."

**Comment #3**: The third commentor requested copies of the documents planned for the data collection. Ms. Kantor replied to him in July 2019, and her response is included with his request.

**Comment #4**: The fourth commentor asked whether the survey would be required of all EBT recipients.

#### USDA Response:

"Neither the Second National Household Food Acquisition and Purchase Survey nor its Field Test will be required of all EBT recipients. The expected number of responding households to the Field Test is 430, of which 100 are expected to be receiving SNAP at the time of the survey. The planned size of the full survey is 5,000 households, of which 1,163 are expected to be receiving SNAP at the time of the full survey. A separate Federal Register Notice will be published in the future for the full survey."

**Comment #5**: The fifth commentor said that the survey should include households with children with Type I diabetes because they have unmet food needs. Ms. Kantor replied to her via email on July 25, 2019, and her response is included with a summary of the phone call:

### USDA Response:

"Households with children with Type I diabetes will not be a target population for the Field Test, but they may still end up in the final sample through the random sampling that will occur within each sampling domain. A new feature of the Second National Household Food Acquisition and Purchase Survey (and its Field Test) is that members of sampled households will be asked about the presence of diabetes. Thus, although the number of such households may be small in the sample, their food acquisition behaviors will be able to be studied and compared to those of other households. Finally, it should be noted that the planned survey is not designed to measure "unmet food needs." Rather, it is designed to measure actual food acquisition behaviors and the factors that affect those behaviors."

**Comments #6-#10**: The remaining five comments pertained to issues surrounding food assistance programs, amount of benefits received, and potential cuts to benefits.

#### USDA Response:

"Plans to collect information about food acquisition behaviors have no direct connection to plans to change SNAP benefit levels or program eligibility. It is possible, and indeed intended, that information from the planned survey will be used in the future by policy makers and program administrators to assess the adequacy of SNAP benefit levels."

This information collection request has been reviewed by Wendy Van de Kerckhove, Elizabeth Petraglia, Ting Yan, Jill DeMatteis, Tom Krenzke, Erika Bonilla, David Cantor, Janice Machado, and Laurie May at Westat. In addition, Jeffrey Gonzalez, Linda Kantor and Elina Page of ERS, Brady West from the University of Michigan Survey Research Center (U-M SRC), Lin Wang from the Human Factors Research Group, Center for Behavioral Science Methods at the U.S. Census Bureau, Joseph Rodhouse and Darcy Miller from the National Agricultural Statistics Service (NASS), and John Kirlin of Kirlin Analytic Services have reviewed components of this supporting statement. This supporting statement was revised per comments from the Westat team, ERS, NASS, and U-M SRC.

On February 14, 2022 Mathematical Statisticians from the National Agricultural Statistics Service (NASS) completed their review of this information collection request. A listing of their comments is provided in Attachment Z along with ERS' response and as warranted a summary of the changes or modifications made to corresponding documents in this information collection request.

Table A.2. Individuals consulted on the statistical and data collection aspects of this collection

Reviewers Name	Affiliation	Telephon e number	E-mail
Jeffrey Gonzalez	Project Officer, ERS	202-694- 5398	jeffrey.gonzalez@usda.gov
Brady West	Research Associate Professor, University of Michigan Survey Research Center	734-647- 4615	Bwest@umich.edu
Laurie May	Corporate Officer, Westat	301-517- 4076	LaurieMay@westat.com
Janice Machado	Associate Director, Westat	301-294- 2801	JaniceMachado@westat.com
David Cantor	Vice President, Westat	301-294- 2080	DavidCantor@westat.com
Erika Bonilla	Senior Study Director, Westat	301-610- 4879	ErikaBonilla@westat.com
Tom Krenzke	Vice President, Westat	301-251- 4203	TomKrenzke@westat.com
Jill DeMatteis	Vice President, Westat	301-517- 4046	JillDematteis@westat.com
Ting Yan	Associate Director,	301-250-	TingYan@westat.com

Reviewers		Telephon	
Name	Affiliation	e number	E-mail
	Westat	3302	
Wendy Van de	Senior Statistician,	240-453-	WendyVandeKerckhove@westa
Kerckhove	Westat	2785	t.com
Elizabeth	Senior Statistician,	240-314-	ElizabethPetraglia@westat.com
Petraglia	Westat	7535	
Linda Kantor	Economist, ERS	202-694-	Linda.Kantor@usda.gov
		5392	
Elina T. Page	Economist, ERS	202-694-	Elina.t.page@usda.gov
		5032	
Joseph	Mathematical	202-692-	Joseph.Rodhouse@usda.gov
Rodhouse	Statistician, NASS	0289	
Darcy Miller	Mathematical	202-690-	Darcy.Miller@usda.gov
	Statistician, NASS	2652	
Lin Wang	Research	301-763-	Lin.wang@census.gov
	Psychologist, U.S.	9069	
	Census Bureau		
John Kirlin	President, Kirlin	540-786-	johnkir516@hotmail.com
	Analytic Services	1042	

# A.9 Explanation of Any Payment or Gift to Respondents

Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

Permission is being requested to offer financial incentives to households during the FoodAPS-2 Field Test. Like FoodAPS-1 and the ADCM Pilot, the Field Test has a complex data collection protocol. The incentive plan is designed to increase response rates, reduce item nonresponse, and compensate respondents for the burden associated with completing several CAPI (Screener, Initial, Debriefing) instruments and the 7-day Food Log, Profile Questionnaire, and Income Questionnaire.<sup>21</sup>

An incentive experiment is planned for the Field Test. In both FoodAPS-1 and the ADCM Pilot, there was a marked decrease in the number of food events reported each day beginning around Day 4 of the fielding week (Hu, Melipillán, West, Kirlin, and Paniagua, 2020). The ADCM Pilot offered a \$3 per day incentive for reporting any food events on a given day or confirming that

24

<sup>&</sup>lt;sup>21</sup> Or the web-based versions of the FoodLogger if chosen by the Primary Respondent.

there were no food events that day. In the experiment's control group, this incentive will be increased to \$5 per day to see if the increased daily incentive will lead to more consistent reporting of food events, compared to the ADCM Pilot. In the treatment group, the daily incentive will start at \$5 per day and then increase to \$10 per day beginning on Day 4. This increase is designed to see whether a doubling of the incentive prompts more reporting in the last four days of the fielding week when nonresponse has been most troublesome.

Tables A.3, A.4, A.5, and A.6 display the incentive plans for the two past surveys and the two arms of the Field Test's incentive experiment, respectively. Despite the nearly ten year lag between FoodAPS-1 and the FoodAPS-2 Field Test, the proposed incentive levels for the Field Test (shown in tables A.5 and A.6) are comparable to those used in FoodAPS-1 but have been adjusted to account partially for inflation.

The consent form the household signs will indicate that the incentive is just a one-time cash incentive for survey participation and should not be reported as household income for programs they may be receiving benefits from, such as SNAP and WIC. There will be an opportunity to earn incentives for each of the main interviews (Recruitment and In-person Screeners, Initial, Profile Questionnaire, Income Questionnaire, Debriefing) and each day of food log reporting.

Table A.3. Incentives for FoodAPS-1<sup>1</sup>

Type of Household	Incentive Amount
Single Adult households	
One-person household with no telephone bonus	\$100
(All numbers below assume a telephone bonus of \$30)	
1 adult, no youth or teens	\$130
1 adult and 1 youth (11-14)	\$140
1 adult and 1 teen (15-18)	\$150
1 adult, 1 youth, and 1 teen	\$160
Multiple Adult households	
(Numbers below assume two adults)	
Adults, no youth or teens	\$150
Adults and 1 youth	\$160
Adults and 1 teen	\$170
Adults, 1 youth, and 1 teen	\$180

Table A.4. Incentives for the ADCM Pilot<sup>1</sup>

HH Size	In- Person Screene r	Initial Intervie w + Training	Food Log <sup>a</sup>	Final Intervie W	Income Worksh eet <sup>b</sup>	Max Total (Full Survey)
1	\$5	\$50	\$21	\$50	\$5	\$131
2	\$5	\$50	\$42	\$50	\$5	\$152
3	\$5	\$50	\$63	\$50	\$5	\$173
4	\$5	\$50	\$84	\$50	\$5	\$194

 $<sup>^1\</sup>mathrm{Excludes}$  the incentive provided for the Recall Interview as it is not being implemented for the FoodAPS-2 Field Test

Table A.5. Incentive Plan for the FoodAPS-2 Field Test (Control Group)

HH Siz	Mail Screen	In- Person Screen	Initial Intervi ew + Traini	Foo d Log	Debri ef Intrvi	Inco me Wksh eet (\$2	Profi le Que x (\$2	Max Total (Full Surve
е	er	er	ng	а	ew	pp)	pp)	y)
1	\$5	\$5	\$40	\$35	\$16	\$2	\$2	\$105
2	\$5	\$5	\$40	\$70	\$16	\$4	\$4	\$144
3	\$5	\$5	\$40	\$105	\$16	\$6	\$6	\$183
4	\$5	\$5	\$40	\$140	\$16	\$8	\$8	\$222

<sup>&</sup>lt;sup>a</sup> \$5 a day per household member for a completed daily Food Log report.

Table A.6. Incentive Plan for the FoodAPS-2 Field Test (Treatment Group)

HH Siz	Mail Screen	In- Person Screen	Initial Intervi ew + Traini	Foo d Log	Debri ef Intrvi	Inco me Wksh eet (\$2	Profi le Que x (\$2	Max Total (Full Surve
е	er	er	ng	а	ew	pp)	pp)	y)
1	\$5	\$5	\$40	\$55	\$16	\$2	\$2	\$125
2	\$5	\$5	\$40	\$90	\$16	\$4	\$4	\$184
3	\$5	\$5	\$40	\$125	\$16	\$6	\$6	\$243
4	\$5	\$5	\$40	\$160	\$16	\$8	\$8	\$302

<sup>&</sup>lt;sup>1</sup>Incentives were based on household size with a bonus for participation in telephone interviews, i.e., \$10 each time the household initiated a food reporting call on days 2, 5, and 7. Incentives for keeping the food diary were \$10 for children age 11 to 14 and \$20 for persons over age 14.

<sup>&</sup>lt;sup>a</sup> \$3 a day per household member for a completed daily Food Log report.

<sup>&</sup>lt;sup>b</sup> \$5 provided if all eligible household members complete.

Although the proposed incentive plan for the Field Test is similar to the one implemented during FoodAPS-1, it is structured differently and is guided by gamification theory (Richter, Raban, and Rafaeli, 2015) to increase both initial survey response rates and ongoing Food Log entries throughout the week. Gamification is shown to improve user experience and user encouragement and increase user loyalty (Richter, Raban, and Rafaeli, 2015) and has been increasingly applied to marketing (Richter, Raban, and Rafaeli, 2015), education (Richter, Raban, and Rafaeli, 2015), and even survey research (Puleston, 2011). One study empirically examined the effects of gamifying incentives (Dan and Lai, 2013). In a pilot study for which respondents were asked to keep a 6-week diary on viewing of TV programs, Nielsen adopted three gaming mechanics to encourage reporting of TV viewing; respondents earned different kinds of badges, accumulated more points, and advanced to higher levels if they reported more TV viewing in the diary. Nielsen found that the gaming mechanics had a significantly positive impact on the number of visits to the diary system and number of entries on TV viewing. Motivated by the Nielsen study, we would like to use a cumulative incentive scheme driven by households' Food Log reporting and a mechanism to communicate the accumulated amount back to respondents.

The proposed incentive scheme for the Field Test has two components. One is at the household-level and is the same for all sampled households. The other is at the individual level allowing larger households to earn larger incentives. The experimental treatment occurs at this individual level.

The mail screener package will include an advance letter to the sampled addresses in the Secondary Sampling Unit (SSU) explaining the study, a brief screener questionnaire, and a postage-paid return envelope. We will include \$5 in cash in every screener mailing in the Field Test. Non-responding households to the initial screener mailing will receive two subsequent mailings each about a week apart. The 2<sup>nd</sup> mailing will include the screener questionnaire and a modified advance letter, but no cash incentive. The final mailing will be a postcard that encourages the household to turn in their

<sup>&</sup>lt;sup>a</sup> \$5 a day per household member for a completed daily Food Log report for the first 3 days, increasing to \$10 a day per member thereafter.

questionnaire. It will also include a username and password providing the household with the option of completing the screener on the NFS website.

All households completing the In-person Screener—including those who also completed the mail-in screener—will receive \$5 upon completion of the screener.

In addition to the \$5 cash incentives to each of the mail and in-person screeners, enrolled households in the Field Test will receive the following incentives in the form of a check mailed to the primary respondent after the interviewer's final visit with the household:

- \$40 for completing the initial interview and participating in training.
- If in the control group, \$5 per day for each household member whose food acquisition behavior is recorded in the Food Log.
- If in the experimental group, \$5 per day for the first three fielding days for each household member whose food acquisition behavior is recorded in the Food Log, and \$10 per day for the final four fielding days of the week.
- \$2 for each age-eligible household member who completes the Income Questionnaire.
- \$2 for each household member who completes the Profile Ouestionnaire.
- \$16 for completing the debriefing interview.

Following gamification theory, Westat will send daily notifications to respondents via text or e-mail (depending on respondent preference) with the amount of the incentive they have accumulated. In addition, every time a household member logs into the FoodLogger app or uses the web-based food log, the amount of incentive accumulated will be displayed to the household member.

As it would clearly be awkward to have different members of the same household receiving different incentives for recording events in their food logs, randomization for the split-sample incentive experiment will be done at the household level.

As discussed in Supporting Statement Part B, the purpose of the experiment is to examine which incentive schema is cost efficient and provides more complete 7-day Food Logs for FoodAPS. This will inform the Full Survey. The measures of interest will be at the person level. As an example, Table A.7 shows results from the ADCM Pilot regarding the average number of food events reported each day per household member. Reporting of FAH and FAFH events dropped by 23.5 and 32.5 percent, respectively, over the week. Together, the average daily number of reported food events dropped 28.4 percent. ERS will use minimum detectable differences with 80% power and a 0.05 level of significance to determine if doubling the daily incentive starting on day 4 reduces the drop-off in event reporting compared to day 1.

Table A.7. Average Number of Reported Food Events by Study Day

Food acquisition estimates	DAY1	DAY2	DAY3	DAY4	DAY5	DAY6	DAY7
Average number FAH events per person	0.34	0.30	0.29	0.22	0.25	0.21	0.26
Average number FAFH events per person	0.40	0.39	0.35	0.35	0.33	0.33	0.27
Average number of total events per person	0.74	0.69	0.64	0.57	0.58	0.54	0.53

SOURCE: 2016 ADCM Pilot Study

 $<sup>^{22}</sup>$  Table A.7 is modified from appendix Table A5-21 in Westat's Final Analysis Report for the ADCM Pilot.

# **A.10** Assurance of Confidentiality Provided to Respondents

Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency **policy.** The confidentiality of the Field Test data is protected under the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), (Title V of P.L.-107-347). Households invited to participate in the Field Test will sign a Household Consent and Disclaimer Form (Attachment F1) that includes detailed disclosures regarding confidentiality. The consent form provides assurances that all information which would permit identification of an individual or a household will be held confidential. will be used for statistical purposes only, and will be accessible only to authorized persons. The form will also inform participants that, per the Federal Cybersecurity Enhancement Act of 2015, Federal information systems are protected from malicious activities through cybersecurity screening of transmitted data. It assures respondents that providing answers to any or all questions is strictly voluntary. Interviewers will ensure that an adult household member has read and signed the Houshold Consent Form and Discloaimer prior to participating in the Field Test. A hardcopy version of the form will be provided to the household so that every member of the household has access to and can review it at any point during the study period. In addition to the Household Consent and Disclaimer Form, each household member will provide their individual consent or assent the first time they access the FoodLogger app or the Food Log website (see Attachment R2 pages 1-5 for the presentation of consent and disclaimer information to the participant in the FoodLogger and Attachment R3 pages 3 and 4 for the corresponding information in the web version of the Food Log). A copy of the individual consent/assent form is provided in Attachment F3.

ERS, FNS, NASS, Census, Kirlin Analytic Services, and Westat, ERS's contractor for the Field Test, will fully comply with the CIPSEA, (PL-107-347), including Privacy Impact Assessment, and Federal Information Security Management Act compliance. Data collection efforts will not begin until an Authorization to Operate is in place. In conformance with these Acts, ERS,

FNS, its employees, agents, and partner statistical agencies, will use the information for statistical purposes only and will hold the information in confidence to the full extent permitted by law. Responses will not be disclosed in identifiable form without the consent of the respondent in accordance with CIPSEA.

Per the Federal Cybersecurity Enhancement Act of 2015, USDA information systems are further protected from malicious activities by the Department of Homeland Security (DHS) through cybersecurity monitoring of the systems that transmit USDA data. DHS will be monitoring these systems to look for viruses, malware and other threats. In the event of a cybersecurity incident, and pursuant to any required legal process, information from these sources may be used to help identify and mitigate the incident.

Finally, any research output using the Field Test data will be reviewed first for disclosure risk. If the review discovers any risk of disclosing confidential information, the request to use the material will be denied, and the reviewer will inform the researcher the reason(s) for the denial. The researcher must then revise the research output and resubmit it for another disclosure review. No research output will be allowed to be publicly released without the approval of the disclosure reviewer.

### **A.11** Justification for Sensitive Questions

Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

In general, questions asked of participants during the FoodAPS-2 Field Test are not considered sensitive. Like FoodAPS-1, the FoodAPS-2 Field Test

includes questions on monthly income, whether they have a specific illness (e.g., hypertension, high cholesterol, or diabetes), smoking history, personl data on height, weight, etc., and program participation that some participants may consider sensitive. The collection of these data from a nationally-representative sample is essential to understanding the factors that influence household food choices and to providing a comprehensive picture on health and obesity, hunger, and nutrition assistance policy. Participation in the FoodAPS-2 Field Test is voluntary, and participants can choose not to answer any of these questions.

The collection of household income and program participation data is needed for two reasons. First, income and program participation will be used to screen households to participate in the Field Test. The Field Test targets four groups of households based on whether they participate in SNAP or WIC, and their income level relative to the Federal Poverty Guidelines. The household screener contains questions on the household's participation in SNAP, WIC, household size, and total household income to appropriately categorize and determine survey eligibility. SNAP, WIC, and low-income households are over-sampled using the screener information. A second purpose for collecting income information is for analysis of food demand. The amount of income available to household members is critical for understanding how much food a household purchases. A significant amount of detail is necessary for creating a complete and accurate measure of household income. Hence, the income questions ask respondents who are 16 years of age or older to report income amounts within detailed categories. The respondent is asked about income during the data collection week to help compile total household income, which is then confirmed during the final interview.

Primary respondents who report that somebody in the household is receiving SNAP will be asked for their EBT card number.<sup>23</sup> Having such information is expected to dramatically improve the matching of administrative records to survey data, a process that was sometimes quite difficult or impossible in

<sup>&</sup>lt;sup>23</sup> SNAP participants are provided with an EBT card that can be used to determine a participant's remaining SNAP benefits and must be used when purchasing any authorized food or drink items using SNAP benefits.

FoodAPS-1. The consent form asks specifically about matching respondent information to administrative data. Although matching to administrative data will not be done for the Field Test, it is planned for the full survey. The question about EBT card number is included in the Field Test to get a better understanding of whether respondents know their EBT card number and are willing to provide it.

Participation in the FoodAPS-2 Field Test is voluntary, and participants can choose not to answer any of these income questions or any other questions.

### A.12 Estimates of Respondent Burden Including Annualized Hourly Costs

Provide estimates of the hour burden of the collection of information. The statement should:

- Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I.
- Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.

The completed OMB Form 83-I is in Attachment P.

Table A.8 presents the sample size, annual frequency of response, reporting burden for responders and non-responders, hourly rate and the annualized cost to respondents for the Field Test. The total respondent burden associated with participation in the FoodAPS-2 Field Test is estimated to be 3,211 hours.

### **Explanation of Burden Hours Computation**

For some of the planned data collection activities in the FoodAPS-2 Field Test, a single person in each household will be responding. For other data collection activities, there will be multiple respondents per household. The tables are divided into data collection events by household level (top) and individual level (bottom). The individual-level section of the table is further divided by age to reflect different forms and assumptions about each age group.

Individuals responding to the food log portion of the Field Test—including the Profile Questionnaire and Income Questionnaire—will be offered use of the FoodLogger app. For those who do not wish to use the app, they may enter data on the NFS website. Any household in which the PR is uncomfortable using either a smartphone or a computer to enter information will be contacted by a telephone interviewer who will offer to collect all data via three phone interviews with the PR during the fielding week. While speaking with the PR, the telephone interviewer will be entering the reported information using the NFS website. Thus, all three modes of data collection are designed to collect the same information. Based on what was learned during the 2016 ADCM Pilot, we anticipate that about 25 percent of household members will prefer to enter data using the website and about 73.5 percent will use the FoodLogger app. The remaining 1.5 percent will not want to use either technology and will use the telephone interviews to report the needed information for all household members.

In calculating response burden for the Field Test, average household size is estimated as 2.99 based on the average household size of respondents in the ADCM Pilot.

All displayed estimates in the burden tables are rounded to the nearest integer. The response rate estimates for the mail screener are based on those achieved by the contractor, Westat, on studies using data collection protocols similar to those planned for the Field Test. Response rates for the in-person screener and other instruments are based on those achieved in the ADCM Pilot, with adjustments for the enhancements planned for data collection procedures. Our burden estimates are based on the time it took to complete the instruments in the ADCM Pilot with adjustments for new and

modified questions based on cognitive and usability testing completed for the Field Test.

#### **Household Level Data Collection**

■ Mail/Web Screener. The screener will be mailed to 4,125 addresses in three waves. We estimate an overall return rate of 20% across all three mailings. The first mailing (questionnaire with an advance letter and \$5 cash incentive) will yield 50% of the overall expected return rate of 20%, the second mailing (questionnaire with an advance letter) to the 3,712 non-respondents will yield an additional 35%, and the last mailing (postcard with an invitation to complete the web version of the screener) to 3,424 non-responding households will yield an additional 15% and get us to the 20% estimated response rate for the mail screener. Assuming each responding household spends an average of 6 minutes reading the letter and completing the brief screener, the burden for the 825 (413+288+124) responding households is estimated to be 82 (41+29+12) hours.

We assume that non-responding households will spend an average of 2 minutes reading each of the three mailings. There are an estimated 3,712 non-responding households to the first mailing, leading to an estimated burden of 124 hours. The estimated 3,424 households that do not respond to the second mailing add 114 burden hours, and the estimated 3,300 households not responding to the third mailing add 110 hours. The total burden among non-responding households is 348 hours.

■ Advance Letter for in-person Screener. The letter will be mailed to 2,382 households consisting of: 582 of the 825 households returning a mailed screener (based on an expected survey eligibility rate of 70.5%); a subsample of 1,100 of the 3,300 households (33.3%) that did not respond to the mailed screener; and a sample of 700 households with a SNAP member extracted from the SNAP administrative files received for the 2016 ADCM Pilot. Assuming an average occupied dwelling unit rate of 80.15% for the two latter groups²⁴, we estimate that 2,025 responding households will spend an average of 2 minutes reading the letter, for a burden of 68 hours. There are no non-responding households in non-occupied dwellings, so the burden for non-respondents is 0.

35

<sup>&</sup>lt;sup>24</sup> Because the first group consists of households that returned a mail-out screener, their occupancy rate must necessarily be 100%.

- In-person Screener. About 733 households (36.2% of 2,025) will complete the in-person screener interview, which will take an average of 9 minutes to administer, or a total of 110 hours. Interviewers will spend about 2 minutes with each of the 1,292 nonresponding households, or 43 hours total. Total in-person screener burden across all households is 153 hours.
- Consent Forms. An estimated 660 of the 733 households, or 90.0%, will be eligible to participate in the Field Test based on income and participation in SNAP and WIC programs. An adult household member or the PR will be requested to sign a consent form. We will also request parental consent from an adult household member for each child between the ages of 11 and 17 to complete the profile questionnaire, the food log, and, if applicable, the income questionnaire for themselves. Expected burden will average 5 minutes per responding household, or 55 hours. Burden for the 73 non-responding households will be 2 minutes per household, or 2 hours.
- Initial Household Interview. Of the 660 survey-eligible households, an estimated 468 households (70.9%) will agree to participate in the survey and will complete the initial interview. The interview will take an average of 30 minutes to administer, or 234 hours total across these households. The remaining 192 households will drop out after giving their consent and spend an average of 3 minutes per household, or 10 hours total, with the interviewer trying to regain their cooperation.
- Debriefing Interviews. Debriefing interviews will be administered to three groups of households: those who refuse to participate in the study; those who complete the study; and those who stop participating before all survey activities are completed. Debriefing questions for households that refuse to participate in the study are included in the In-person Household Screener, and the expected burden of these questions is already captured by the estimated burden for that instrument.

**Debriefing Interview--completes.** We expect that 434 households (92.7% of 468) will complete the food log. Within this group, about 430 (99%) are expected to complete a debriefing interview lasting about 10 minutes, for a total burden of 72 hours. This percentage is high for two reasons. First, the PR will have invested considerable time to this point participating in the survey, and we believe it is likely that such responders will be willing to complete the last step. Second, the household will not qualify for its earned incentives until the debriefing interview is completed

and any loaned equipment is returned. Interviewers are expected to take about 5 minutes, on average, trying to convince the other 4 households to complete the debriefing interview, for an additional 20 minutes of burden, which rounds to 0 hours.

**Debriefing Interview—breakoffs.** With 468 households completing the Initial Interview and 434 households completing the Food Log, about 34 households (7.3%) are expected to break off after completing the Initial Interview. We expect 27 of them (80%) to answer a short, 3-minute debriefing interview, and we expect the interviewer to average about 3 minutes per household trying to persuade the remaining 7 respondents to take the debriefing interview. Total rounded burden hours are 1 and 0, respectively, for the responders and non-responders.

#### **Individual Level Data Collection**

It is at the individual level that differences in data collection tasks appear. As entry of information via the FoodLogger app or the NFS website will be very similar, we assume similar patterns of reporting burden for the two modes. This assumption is based on findings from the ADCM pilot in which average amount of time each respondent spent filling out the Food Log on the web or smartphone for the entire 7-day period was 49 minutes (or 7 minutes/day)<sup>25</sup>. A third mode of telephone interviewers will be used with PRs unwilling or unable to participate with the FoodLogger or website.

At the individual level, data collection protocols differ depending on age. Children under 11 years old have no reporting responsibilities or burden as the PR proxy reports for them. Children aged 11 through 15 years are asked to report their food acquisitions and fill out a Profile Questionnaire, and members 16 years old and above (including the PR) report food acquisitions, fill out a Profile Questionnaire, and complete an Income Questionnaire. Based on results from the ADCM Pilot,<sup>26</sup> the expected number of persons aged 16 years and above in the 468 households who completed the initial interview, and are reporting using the FoodLogger phone app or the NFS website, is

<sup>25</sup> For the Food Log timings, it was not possible to tell when exactly the respondent stopped interacting with the Food Log—only when they logged out, closed the app, or the session timed out after 20 minutes of inactivity. Therefore, the Food Log estimates are likely

conservative, meaning that respondents actually spent less time on the Food Log.

<sup>26</sup> The Final Report from the ADCM Pilot is an unpublished internal report that is available upon request, but due to potential confidentiality issues, the report may require redactions.

1,016 (72.6% of 468\*2.99). There will be an estimated 104 children aged 11-15 years (7.4%) and 280 children under the age of 11 (20.1%).

### **Members Age 16 and Above**

**Training.** The 468 households completing the initial interview contain an estimated 1,016 individuals aged 16 and above. The interviewer will offer training in how to report food events to the PR and any other persons aged 16 or older at home at the time.<sup>27</sup> We assume that an average of one other household member will be trained by the interviewer, for a potential total of 936 persons. We further expect that 97% of this group (908 persons in 454 households) will agree to be trained. Training provided by the interviewer is expected to take about 45 minutes, for a total of 681 burden hours. Interviewers will take an average of 3 minutes each trying to persuade the remaining 28 members from 14 households to participate in training, for a burden of 1 hour.

After excluding the 14 households in which the PR refused to participate in training, another 49 individuals aged 16 and above ((454\*2.99\*.726)-908-28) remain to be trained after the interviewer leaves. It will be the PR's responsibility to provide these household members with the materials left by the interviewer that show them how to access the training videos. We expect the PR will spend about 45 minutes on average explaining the study to the household member, getting them started on the videos, and answering any questions they might have. The expected total burden for the PRs is 37 hours. The expected burden for other household members who choose to review all study materials and watch the videos is 45 minutes as well, for another total burden of 37 hours. Due to the PR's agreement to participate in the study, we do not anticipate any refusals among the household members due to training issues<sup>28</sup>.

■ **Assent/Consent Form.** The first time each participant age 16 or above accesses the food log system they will be presented with legally-required disclaimer information. The participant cannot proceed with participating in the study without navigating through these log in screens (Attachments F4 and F5) and confirming that they agree to take part in the study. A hardcopy Household Consent Form and Disclaimer will also be available for the

<sup>&</sup>lt;sup>27</sup> Training for children aged 11-15 years is discussed below.

<sup>&</sup>lt;sup>28</sup> Training materials will be made available to all household members throughout the study. Household members will also have access to the toll-free number if they have questions about the study.

participant to consult at any time during the study period. Assuming that everybody who consents to training will also consent to participate, then 957 household members (908+49) will agree. Reading and signing the consent form should take an average of 1 minute per participant, for a total of 16 hours.

- Income Questionnaire. 957 persons aged 16 and up will be asked to provide information on income. Assuming an 85.0% response rate, an estimated 813 persons will complete the questionnaire. Estimated burden is 15 minutes per respondent, or 203 hours across all respondents. The remaining 144 persons who fail to complete their questionnaire will receive reminder notices when using the food log. The estimated burden of reading these reminders is 1 minute per day or 7 minutes per week, for 17 hours total.
- **Food Log.** We anticipate assigning food logs to an estimated 957 persons age 16 years or older. We expect an 85.0% completion rate, receiving completed logs from 813 persons. The Food Log is expected to take an average of 7 minutes per day to complete, for a total of 664 hours.

We anticipate that we will not receive logs for 144 individuals, but they will spend an average of 3 minutes per day reading reminders in the Food Log encouraging them to participate, for a total burden of 50 hours. Total burden across the responders and nonresponders is estimated at 714 hours.

- **Food Log (proxy).** The PR is expected to complete food logs by proxy for an estimated 273 children under 11 (454\*2.99\*.201). As many of these children will have no food events to report, the average time to complete the Food Log is expected to take about 4 minutes per day to complete, for a total of 127 hours.
- **Profile Questionnaire.** We assume that the number of these forms assigned, and percent completed will be the same as for the Food Log. The estimated average burden for this form is 6 minutes, for a total burden of 81 hours. For the 144 non-responding persons, estimated burden is 1 minute per day (7 minutes total), or a total of 17 hours.
- **Profile Questionnaire (proxy).** The PR is expected to complete profile questionnaires by proxy for an estimated 273 children under 11. The Profile Questionnaire for children this age is expected to take less time, 3 minutes, to complete than for older children and adults because several questions about employment and service in

the military do not pertain to them. Total burden is expected to be 14 hours.

- **Food log by phone interview.** The 14 PRs breaking off before or during training will be contacted later by a telephone interviewer and offered a chance to participate in the survey through 3 phone interviews rather than by using the food log. We estimate that 6 (43%) of these 14 households will agree to participate if they do not have to rely on using technology to enter their data. As the telephone interviewers will be entering information about food events in a web-based version of the food log, we expect these interviews to last about 7 minutes per person-day being reported. With an average household size of nearly 3, the phone interviewer will need to collect information about food acquisitions from the PR for an average of 21 person-days during the week. With 3 calls planned, the PR will be reporting an average of 7 person-days of acquisitions during each call. Each reporting episode is expected to average 49 minutes<sup>29</sup>, for a burden of 15 hours.
- Memory Jogger. The 6 PRs who agree to report food acquisitions to a phone interviewer will be given an average of about 14 Memory Jogger sheets to record information about any acquisitions by household members during the week for which a receipt was not saved. Summing data from the ADCM Pilot Study (Table A.7 above) across the week shows that, on average, each household reported 12.8 food acquisition events during the week. Readable receipts were not provided for about 73 percent of all food events during FoodAPS. <sup>30</sup> This suggests that, on average, a PR will need about 10 Memory Jogger sheets<sup>31</sup> to record information about members' food acquisitions that have no saved receipt.

Each Memory Jogger sheet provides space for the PR or other household member to report information about the acquisition, and the PR can refer to these sheets or actual receipts when responding to the phone interviews. The expected average time to fill out a Memory Jogger sheet is 2 minutes, and the total burden of filling out an estimated 60 sheets (6\*10) is 2 hours. We expect no non-responses for this task.

 $<sup>^{29}</sup>$  That is, 6 households x 3 persons per household x 7 days x 7 minutes burden per day divided by 18 calls total.

<sup>&</sup>lt;sup>30</sup> Information about the percentage of readable food receipts in FoodAPS is available in "Codebook: Food-at-Home (FAH) Event Data – Public Use File" and "Codebook: Food-Away-From-Home (FAFH) Event Data – Public Use File," both accessible at https://www.ers.usda.gov/data-products/foodaps-national-household-food-acquisition-and-purchase-survey/documentation/. The relevant variable is named RECEIPTOBSERVED in both codebooks.

<sup>&</sup>lt;sup>31</sup> Seventy-three percent of 12.8 events is 9.3 events, which we have rounded up to 10.

- **Profile Questionnaire by phone interview.** For those PRs reporting food events by telephone, the interviewer will ask them for information to fill in the Profile Questionnaire for each household member. The 6 PRs (100%) are each expected to provide information for an average of 3 household members, or 18 household members in total. Estimated time to provide the profile information will average about 6 minutes per person, for 2 burden hours.
- Income Questionnaire by Phone Interview. The telephone interviewers will ask the 6 PRs who use this mode of collection to report income for all household members 16 years or older. We expect that 72.6 percent of all household members will be 16 years or older, or roughly 2 members in each household. Expected burden for the PR to report income sources and amounts is 15 minutes per member, yielding a total response burden of 3 hours.

### Children Age 11-15

- **Training.** Of the expected 100 children aged 11-15 years in the 454 households for which the PR was trained, we anticipate that all will be offered training from the PR and that 95% will accept, which yields a sample size for this entry of 95. Using the same expectation for training as was done above for training of members 16 years or older, we estimate that the child will spend 45 minutes watching training videos. The estimated burden for the children is 71 hours. The remaining 5 children will drop out either because they do not want to participate or the PR determines that they should not participate. This PR interaction with the 5 children is expected to average 3 minutes, for a rounded burden of 0 hours for both the PRs and the children.
- **Assent/Consent Form.** The first time each participant between the ages of 11 and 15 accesses the food log system they will be presented with legally-required disclaimer information. The participant cannot proceed with participating in the study without navigating through these log in screens (Attachments F4 and F5) and confirming that they agree to take part in the study. A hardcopy Household Consent Form and Disclaimer will also be available for the participant to consult at any time during the study period. Assuming that everybody who consents to training will also consent to participate, then 95 children will agree. Reading and signing the consent form should take an average of 1 minute per participant, for a total of 2 hours.

- **Food Log.** With an expected 85.0% completion rate among children giving assent, we anticipate that 81 children in this age group will complete their food logs. The food log is expected to take about 7 minutes per day to complete, for a total of 66 hours. We anticipate that we will not receive logs for 14 children, but they will spend an average of 3 minutes per day either reading reminders to fill out the form or listening to other household members encouraging them to participate, for a total burden of 5 hours.
- **Profile Questionnaire.** We assume that the number of these forms assigned, and percent completed will be the same as for the food log. The estimated average burden for this form is 3 minutes for children aged 11-15, for a total burden of 4 hours. For the 14 non-responding children, estimated burden is 1 minute each, or a total of 14 minutes, which rounds to 0 hours.

The total respondent burden associated with participation in the FoodAPS-2 Field Test is estimated to be 3,211 hours.

### **Explanation of Annualized Cost Computation**

Table A.8 shows estimated hourly employer compensation and total annualized costs to respondents to complete each data collection event. The estimated employer compesation costs for private industry workers was \$38.07 per hour worked in December 2021 where wage and salary costs averaged \$26.86 and accounted for 70.5 percent of employer costs, while benefit costs were \$11.22 and accounted for 29.5 percent<sup>32</sup>. The annualized cost for each data collection even was obtained by multiplying the hourly rate by the total burden hours for the event.

The estimated total burden hours and costs associated with participating in the FoodAPS-2 Field Test is 3,211 hours and \$122,243 respectively.

<sup>32</sup> The estimate of total employer compensation costs for private industry workers averaged \$38.07 per hour worked. This estimate includes both wage and salary costs as well as benefit costs. See the Bureau of Labor Statistics' March 18, 2022 Employer Costs for Employee Compensation News Release for more information at: https://www.bls.gov/news.release/pdf/ecec.pdf (*Accessed March 21, 2022*).

Table A.8. Field Test respondent burden and cost estimate

Instrument Iousehold-Level Data Collection	Sample Size	Freq		Erony	BALL /Das	Donadana		F	nat - /n	D	D	Hourry	
ousehold-Level Data Collection	1	Freq	Count Freq x		Min./Res	1	Count		Min./Res		Burden	Hourly Rate	Annualized
lousehold-Level Data Collection	_			Count	p.	Hours*		Count	p.	Hours*	Hours*		Costs
irst Mailing for Mail Screener	4125	1	413	413		41	3712	3712	2	124	165	\$38.07	\$6,28
econd Mailing for Mail Screener	3712	1	288	288		29	3424	3424	2	114	143	\$38.07	\$5,44
hird Mailing for Mail Screener avance retters for in-person	3424	1	124	124	_	12	3300	3300	2	110	122	\$38.07	\$4,64
	2382	1	2025	2025	2	68	0	0	0	0	68	\$38.07	\$2,58
n-person Household Screener	2025	1	733	733	9	110	1292	1292	2	43	153	\$38.07	\$5,82
onsent Form	733	1	660	660	5	55	73	73	2	2	57	\$38.07	\$2,17
nitial Household Interview	660	1	468	468	30	234	192	192	3	10	244	\$38.07	\$9,28
ebriefing interview-completes	434	1	430	430	10	72	4	4	5	0	72	\$38.07	\$2,74
ebriefing Interview-break-offs	34	1	27	27	3	1	7	7	3	0	1	\$38.07	\$3
otal Responding Burden - HH						622				403	1025		\$39,02
ndividual-Level Data Collection													
ge 16+													
raining by interviewer	936	1	908	908	45	681	28	28	3	1	682	\$38.07	\$25,96
raining by PR	49	1	49	49	45	37	0	0	0	0	37	\$38.07	\$1,40
Member receiving training	49	1	49	49	45	37	0	0	0	0	37	\$38.07	\$1,40
onsent Form	957	1	957	957	1	16	0	0	1	0	16	\$38.07	\$60
ncome Questionnaire	957	1	813	813	15	203	144	144	7	17	220	\$38.07	\$8,37
ood Log	957	7	813	5691	. 7	664	144	1008	3	50	714	\$38.07	\$27,18
ood Log (proxy)	273	7	273	1911	. 4	127	0	0	3	0	127	\$38.07	\$4,83
rofile Questionnaire	957	1	813	813	6	81	144	144	7	17	98	\$38.07	\$3,73
rofile Ques (proxy)	273	1	273	273	3	14	0	0	1	0	14	\$38.07	\$53
ood Log by Phone Interview	6	3	6	18	49	15	0	0	3	0	15	\$38.07	\$57
Memory Jogger	6	10	6	60	2	2	0	0	0	0	2	\$38.07	\$7
rofile Ques by Phone Interview	6	3	6	18	6	2	0	0	2	0	2	\$38.07	\$7
ncome Ques by Phone Interview	6	2	6	12	15	3	0	0	2	0	3	\$38.07	\$11
otal Responding Burden - Ind.						1882				85	1967	,	\$74,88
ge 11-15													
raining by PR	100	1	95	95	45	71	5	5	3	0	71	\$38.07	\$2,70
child receiving training	100	1	95	95		71	5	5	_	0	71	\$38.07	\$2,70
ssent Form	100	1	95	95			5	5		0	2	\$38.07	\$2,70
ood Log	95	7	81	567	_		14	98	3	5	71	\$38.07	\$2,70
rofile Questionnaire	95	1	81	81	-	4	14	14	1	0	4	\$38.07	\$15
otal Responding Burden - Ind.	1		31			214	24	24	-	5	219	<b>Ç</b> 55.67	\$8,33
otal Responding Burden						2718				493	3211		\$122,24

## A.13 Estimates of Other Total Annualized Cost Burden

Provide estimates of the total annual cost burden to respondents or record keepers resulting from the collection of information, (do not include the cost of any hour burden shown in items 12 and 14). The cost estimates should be split into two components: (a) a total capital and start-up cost component annualized over its expected

useful life; and (b) a total operation and maintenance and purchase of services component.

There are no capital/start-up or ongoing operation/maintenance costs associated with this information collection.

### A.14 Annualized Cost to the Federal Government

Provide estimates of annualized cost to the Federal Government. Also, provide a description of the method used to estimate cost and any other expense that would not have been incurred without this collection of information.

The total annualized cost to the Federal Government is estimated as \$1,810,676. This cost includes both direct Federal labor costs and contract costs.

Direct Federal labor costs are \$2,233,435 over five years and six months to support the contract and to provide input on key aspects of and deliverables related to the design, development, execution, and evaluation of the FoodAPS-2 Field Test. Direct Federal Labor costs include the total employer compensation costs of ERS staff working on the project. On an annualized basis, direct Federal labor costs are estimated as \$406,079.

Total contract costs of \$6,794,281 cover three separate contracts: the main contract with the survey developer, a contract to perform usability testing of the food app, and a contract for consulting services. The main contract of \$6,061,617 includes 11 tasks pertaining to questionnaire design, development of data collection infrastructure such as the native smartphone application and the online food log, sample selection, recruitment of respondents, information collection, analysis, report writing, and briefing stakeholders. The second contract of \$450,000 was awarded in September 2019 and covers usability testing of the native smartphone application. The third contract of \$282,664, awarded in September 2018, covers four years of consulting services including review and comment on all deliverables from the first two contracts, assistance in preparing materials for OMB clearance,

and participation in weekly project meetings. On an annualized basis, the combined contract costs are \$1,404,597.

## A.15 Explanation for Program Changes or Adjustments

Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-1.

This is a new data collection.

# A.16 Plans for Tabulation and Publication and Project Time Schedule

For collections of information whose results are planned to be published, outline plans for tabulation and publication.

The Field Test is not an end to itself, but an important step to fielding a full FoodAPS-2 survey with subsequent tabulation and publication of results. For this reason, we present here the planned overall schedule for both the Field Test and the Full Survey.

USDA's intent is to post the FoodAPS-2 public-use files on the ERS website, with levels of documentation and access comparable to the FoodAPS-1 public-use files currently posted.<sup>33</sup>

Prior to creating the public-use files, the selected contractor will perform a disclosure risk analysis to determine which variables, if included in the same form as in the restricted-use files, pose the greatest danger to respondent confidentiality. The results of the analysis and recommendations for how to reduce risk to acceptable levels will be documented in a disclosure risk report.

<sup>&</sup>lt;sup>33</sup> See https://www.ers.usda.gov/data-products/foodaps-national-household-food-acquisition-and-purchase-survey/foodaps-national-household-food-acquisition-and-purchase-survey/#Public-Use Data Files and Codebooks.

The planned schedule for the FoodAPS-2 study, including the Field Test, is displayed in Table A.9.

Table A.9. FoodAPS-2 Schedule

Activity	Complete by MM/DD/YYYY				
Study design for the Field Test	11/18/2021				
Cognitive and usability testing	07/23/2021				
Develop instrument and materials	10/29/2021				
Draw sample for the Field Test	05/01/2022				
Field Test in-person data collection	07/15/2022 -				
	11/13/2022				
Final Memorandum on Field Test results	03/15/2023				
Award contract for Full Survey	05/15/2023				
Study design for Full Survey	05/31/2023				
Publish 60-day Federal Register Notice	06/15/2023				
Submit ICR for Full Survey	08/16/2023				
Select PSUs for the Full Survey	06/01/2024				
Select SSUs for the Full Survey	07/01/2024				
Full Survey data collection	Oct 2024-Sept 2025				
Public-use files and documentation	05/22/2026				

## A.17 Reason Display of OMB Expiration Date Is Inappropriate

If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

All data collection instruments will display the OMB approval number and expiration date.

## A.18 Exceptions to Certification for Paperwork Reduction Act Submissions

Explain each exception to the certification statement identified in Item 19 "Certification for Paperwork Reduction Act."

There are no exceptions to the Certification for Paperwork Reduction Act (5 CFR 1320.9) for this study.

### References

- Consumer Expenditure Survey, 2019, at https://www.bls.gov/cex/2019/aggregate/region.pdf
- Dan, O.M., and Lai, J.W. (2013). How am I doing? The effects of gamification and social sharing on user engagement. In *JSM Proceedings, Survey Research Methods Section*, pp. 4374-4388. Alexandria, VA: American Statistical Association.
- Dubowitz, T., M. et al. (2015); Rahkovsky, I. and Snyder, S. (2015); and Ver Ploeg, M. et al. (2015).
- https://www.ers.usda.gov/foodaps and https://www.ers.usda.gov/data-products/foodaps-national-household-food-acquisition-and-purchase-survey/interactive-charts/.
- Kirlin, John A., and Mark Denbaly, "Lessons Learned from the National Household Food Purchase and Acquisition Survey in the United States, "Food *Policy*, Elsevier, vol. 72(C), pages 62-71.
- Larson, N.I., M.T. Story, and M.C. Nelson (2009). "Neighborhood environments: Disparities in access to healthy foods in the U.S." *American Journal of Prevention Medicine*, 36(1): 74-81.e10.
- Ogden CL, Carroll MD, Fryar CD, Flegal KM. Prevalence of obesity among adults and youth: United States, 2011-2014. NCHS data brief, no 219. Hyattsville, MD: National Center for Health Statistics. 2015.
- Oliveira, Victor. "The Food Assistance Landscape: FY 2016 Annual Report," EIB-169. U.S. Department of Agriculture, Economic Research Service, March 2017.
- Puleston, J. (2011). Game theory turning surveys into games. Available at http://questionscience. blogspot.com/2011/02/game-theory-turning-surveys-into-games.html
- Richter, G., Raban, D.R., and Rafaeli, S. (2015). Studying gamification: The effect of rewards and incentives on motivation. In T. Reiners and L. C. Wood (eds.), *Gamification in Education and Business*, pp. 21-46. Springer International Publishing Switzerland.
- U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Characteristics of Supplemental Nutrition Assistance Program

Households: Fiscal Year 2019, by Kathryn Cronquist. Project Officer, Barbara Murphy. Alexandria, VA, 2021.