

**SUPPORTING STATEMENT PART A FOR**

**National Food Study Pilot**

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# 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), U.S. Department of Agriculture (USDA), is requesting Office of Management and Budget (OMB) approval to conduct the **Alternative Data Collection Method (ADCM) for Collecting FoodAPS-Like Data Study** (aka the **National Food Study Pilot**). The mission of ERS is to provide timely research and analysis to public and private decision makers on topics related to agriculture, food, the environment, and rural America. 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), fielded in 2012, to support these data needs. ERS plans to conduct the next FoodAPS study in the next couple years. The findings from the National Food Study (NFS) Pilot will inform the sample design and data collection method(s) for the next FoodAPS. Section 17 [7 U.S.C. 2026] (a)(1) of the Food and Nutrition Act of 2008 provides legislative authority for the next planned FoodAPS data collection.

FoodAPS-1 was the first nationally representative survey of American households to collect comprehensive information about food purchased or otherwise acquired. The survey sample was designed to select Supplemental Nutrition Assistance Program (SNAP) households and other low-income households at higher rates to better understand food acquisition behaviors and improve service to this segment of the population. ERS is seeking to build on the successes from FoodAPS-1 and potentially improve data collection and efficiency for the next FoodAPS. So far, ERS has undertaken both internal and external

efforts to evaluate the quality of FoodAPS-1 data, collection methods, and processing procedures to identify ways to improve future data collections by reducing burden while improving accuracy. Although much can be learned from assessing the 2012 data to make design improvements, some potential enhancements require a pilot test to determine their feasibility and likely impact.

The NFS Pilot will make use of the latest computer technologies to collect data on foods acquired and to monitor data collection. These innovations include applications on respondent smartphones to scan barcodes of foods acquired and to enter foods obtained for purchase or for free, the use of the web to capture income earned and the foods acquired over a 7-day period, and tracking survey paradata via interviewer's smartphones and study dashboards. Preliminary versions were tested during the Pretest (see Appendix A10). In addition, the incentive approach proposed is guided by gamification theory. If these innovations yield better data they will become a part of the requirements for the next FoodAPS. There is evidence that some households will not be capable of using the technology. As such, to fully understand if this mode is feasible for the next FoodAPS ERS needs to test the method.

The Pilot will also collect both SNAP and WIC participant lists from the sampled states. SNAP participants will be a part of the sampling frame; WIC participant lists will be used to evaluate State WIC agencies' willingness and ability to provide address information and the quality of the data provided (through matching to a U.S. Postal Department data base). If the NFS Pilot is able to obtain accurate address information from the WIC agencies, ERS may specify this approach to efficiently increase the number of sampled WIC participants in the next FoodAPS.

## **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 data collection described in this document will provide information that is critical to ERS' plans for the next round of FoodAPS data collection. The NFS Pilot findings will be used to improve the sampling design and data collection methodology for the next FoodAPS Study. Specifically, the Pilot will accomplish the following to inform the sampling and data collection methodology for the next FoodAPS.

- Testing whether an alternative method of collecting data on the foods acquired by American households leads to more complete and accurate information about patterns of food acquisitions such as food item descriptions, quantities and prices, where the food is acquired, and the form(s) of tender used.
- Exploring the feasibility of expanding the sample of the next FoodAPS study to include households receiving benefits from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).
- Determining whether the modified protocol surrounding the collection of income information will yield more complete and accurate information on income sources and amounts.
- Using computer technology to reduce burden associated with responding to the request for information. Households will be able to choose from alternative technology options.
- Using sampling and weighting methods for ensuring a representative sample of children.

The NFS Pilot sample will be selected from an address-based sampling frame from 12 Primary Sampling Units (PSUs) in nine states. The survey will attempt to



collect nationally representative data from 500 households, including approximately 150 households participating in the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program).

The NFS Pilot data collection will be conducted in both English and Spanish. This is a single data collection effort that will be implemented during a four-month period following OMB approval as follows:

- Sampled households will be mailed a single **advance letter** (Appendix A1) introducing the study and alerting the household about the interviewer's visit. The mailing will include a one-page **information sheet** (Appendix A2) designed to answer the household's initial questions about the NFS Pilot.
- Next, interviewers will visit the household in an attempt to enroll them in the NFS Pilot. They will provide the household with a study **disclaimer form** (Appendix A3) that describes the NFS Pilot's confidentiality procedures. Once they reach an adult member of the household they will attempt to administer the NFS Pilot **Household Screener** (Appendix B1). The screener interview determines the household's eligibility to participate. Households will be screened out based on income and program participation.
- If the household is found to be eligible, the interviewer will ask to speak with the primary respondent (i.e., the main food shopper or the meal planner) and will ask this respondent to read through the study **consent form** (Appendix A4), sign it, and complete the **Initial Household Interview** (Appendix B2). This interview will enumerate all members of the household and identify household members eligible for the 7-day **Purchased or Free Food Log** (Food Log, See Appendix B3) collection. If the household has minors, the interviewer will ask an adult household member to consent for minors between the age of 11 and 18 to access the Food Log themselves. In addition, when participants access the Food Log for the first time, we confirm that they are agreeing to take part in the study. See Appendices A5a and A5b for the **parental consent and individual assent/consent forms**. When needed, the primary respondent 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. If the household is unable to use the electronic Food Log, they will be ineligible for the survey because the primary purpose of the Pilot is to test the feasibility of electronic media to collect food acquisitions.

- Next, the interviewer will train all household members age 16 and over and, assuming parental consent, those between the ages of 11 and 15 who are available on how to complete: the **Food Log**, (Appendix B3); the **Income Worksheet** (Appendix B4); and the **Meals and Snacks Form** (Appendix B5) either from a computer or from a smartphone. Participants are asked to report their income once during the period; the Food Log and Meals and Snacks Form are completed daily for a week. Household members will be able to access these forms from their own devices. Households without the necessary equipment will be provided a smartphone and/or a laptop and MiFi. A MiFi is a wireless router that acts as a mobile WiFi hotspot providing Internet to the household. The equipment and associated data usage plans will be provided to the household for the survey week at no cost.

All eligible household members will be sent electronic communications (texts or e-mails) with regard to their food logging status and the amount of incentive accumulated. If needed, all eligible household members will also be contacted by interviewers at different points in the week to discuss any issues or problems that they might be experiencing reporting their food and income. Interviewers will leave their phone numbers and the study's toll-free with the households so that household members can call them if they encounter problems or have questions.

- Interviewers will attempt to complete a brief **Nonresponse Form** (Appendix B6) once with households who complete the screener interview but subsequently refuse to continue with the NFS Pilot. Section B.1 lists the points where this survey will be initiated. If the interviewer is present at the time of the refusal, the nonresponse form will be attempted in-person. If the interviewer is not present or the household refuses to

complete the questions with the interviewer, the non-response form will be mailed to the household.

- At the end of the seven-day data collection period, the interviewer will visit the household to complete the Final Household Interview and Recall Interviews. During this visit, interviewers will:
  - Administer the **Final Household Interview** (Appendix B7) and **Respondent Feedback Form** (Appendix B8) to the primary respondent just once;
  - Conduct the **Recall Interview** once (Appendix B9) with the primary respondent and then once again with one other household member selected at random on completion of the Initial Interview,
  - Collect any study-provided 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
  - Provide the household with information on the amount of the incentives earned. The primary respondent will receive an incentive check within a few days.

### **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. A primary objective of the NFS Pilot is to identify an alternative data collection method (ADCM) that collects 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.

In FoodAPS-1, the food purchasing 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 primary respondent (PR) for all members age 10 or below. The paper diaries were supplemented by handheld barcode scanners that recorded food item barcodes. The handheld scanners were used to scan the universal product codes (UPCs, or barcodes) to obtain item descriptions when possible. The diaries were collected during a final in-person interview.

The NFS Pilot data collection is electronic and does not require study participants to carry paper diaries for a week and jot down product details. Instead, participants will be able to use their own smartphones to scan the barcodes of products in stores, at home, at the office, or in restaurants. A successfully scanned barcode that is in the lookup database provides a description of the product and therefore eliminates the need for providing additional detail. Households with no smartphones or Internet connectivity will be loaned an iPhone or MiFi device for the duration of their participation. Participants can also choose to use a desktop computer or tablet with a handheld scanner to complete their Food Log. Participants will be trained to take pictures of meals and to record voice or text memos on the meals and will be permitted to append school menus instead of having to transcribe the details into their daily logs.

#### **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 the NFS Pilot 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 can be used to independently evaluate the use of electronic media to collect detailed information on food acquisitions at home or away from home. We also conducted a literature search to research optimum ways to obtain income amounts and sources. Our findings indicated that we need to test the questions that we have developed to determine whether our approach will yield more accurate results while reducing nonresponse.

## **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 NFS Pilot is targeting residential households in nine states. 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.**

This is a one-time data collection activity. If this information collection is not conducted, USDA/ERS will not have the information needed to specify the requirements for the next national FoodAPS.

## **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;**
- **In connection with a statistical surveys, 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.**

### ***Federal Register Notice and Comments***

ERS published a notice on April 6, 2016 in the *Federal Register*, Document Citation: Volume 81, No. 66 April 6, 2016, pages 19951-19953, Document Number: 2016-07850 (See Appendix A8a). The 60-day period for public comments ended June 6, 2016.

ERS received one comment (see Appendix A8b). The comment recommended that the ADCM be shut down because ERS has too many surveys and needs to keep spending down. It also indicated that ERS does not need the information requested. ERS responds as follows:

“The Agency has made no changes to plans for the National Food Study (NFS) Pilot in response to this comment. Every effort has been made to allocate Federal resources wisely in planning for and conducting the NFS Pilot. The Agency believes that the NFS Pilot is an important step in testing a more efficient, less costly, and less burdensome means of collecting information on U.S. household food acquisition patterns. Information on food acquisition patterns, in turn, is needed to help Federal food assistance and nutrition agencies and policy makers improve programs designed to improve nutrition and health of low-income households.”

The information collection request has been reviewed by Dr. Barbara Murphy, Chief-SNAP Analysis Branch, Office of Policy Support (OPS), Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (703-305-2532), and Dr. Brady T. West, Research Assistant Professor, Survey Methodology Program (SMP), Survey Research Center (SRC), Institute for Social Research (ISR) at the University of Michigan-Ann Arbor (734-647-4615).

## **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. The ADCM Pilot Test has a complex data collection protocol. The incentive plan is designed to compensate respondents for the burden associated with completing several CAPI instruments, a seven-day food log, and an income worksheet. The field test conducted for the 2012 FoodAPS showed that response rates increased by a couple percentage points when respondents were offered a base incentive of \$100 compared to \$50. The tables that follow show that the proposed incentive plan is very similar to the one implemented during the 2012 FoodAPS. However, the proposed plan is structured differently and is guided by gamification theory. The design is intended to reduce overall survey costs by improving response rates and data quality.

Westat would like to implement an incentive scheme guided by the gamification theory (Richter, Raban, and Rafaeli, 2015) to increase survey response rates and also food log entries throughout the week. The proposed incentive scheme has two parts. The first part involves household-level incentives that are the same for all sampled households; for instance, households will receive \$50 upon completing the Initial Interview. The second part is a cumulative incentive driven by food log-keeping behaviors; we propose to give \$3 per day for each person who has logged foods obtained (for purchase or for free) for that day and a



bonus of \$50 to the whole household that records food logs for all 7 days and completes the final interview. Following the gamification theory, Westat will send daily notifications to respondents via text or e-mail (depending on respondent preference) of the amount of incentives they have accumulated. In addition, every time a household member logs into the Food Log, the amount of incentives accumulated will be displayed to the household member.

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 earn different kinds of badges, accumulate more points, and advance to higher levels if they report more TV viewing in the diary. Nielsen found that the gaming mechanics have 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, Westat would like to use a cumulative incentive scheme driven by households' Food Log reporting and a mechanism to convey the accumulated amount back to respondents.

Enrolled households 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:

- \$50 for completing the initial interview and participating in training.
- \$3 per day for each household member whose food acquisition behavior is recorded in the Food Log.
- \$5 if all household members complete the income questions.
- A bonus of \$50 if all household members record food acquisitions on each of the 7 days and the primary respondent completes the final interview.
- \$50 if both household members complete the recall interview.

Table A.9.1 displays the incentives by data collection event and number of household members. Since the Food Log incentive is at the person-level,

households can earn up to an extra \$21 for each additional household member. That is, each additional person can earn \$3 per day for completing the Food Log. The NFS Pilot does not vary the incentive based on the age of the household member.

**Table A.9.1 Incentives earned by data collection event and number of persons in household**

Number of Persons	Initial Interview	Food Log (\$3 per day for each person)	Income Worksheet (provided if all persons complete)	Final Interview and All Persons Complete Food Log	Recall Interview (if both persons selected complete)	Total
1	\$50	\$21	\$5	\$50	\$50	<b>\$176</b>
2	\$50	\$42	\$5	\$50	\$50	<b>\$197</b>
3	\$50	\$63	\$5	\$50	\$50	<b>\$218</b>
4	\$50	\$84	\$5	\$50	\$50	<b>\$239</b>

Table A.9.2 shows the incentives levels in FoodAPS-1. Despite the four year lag between FoodAPS-1 and the NFS Pilot, the incentive levels shown in the table below are comparable to those used in 2012. The NFS Pilot asks participants to participate in an additional interview (recall interview) that was not included in 2012.

**Table A.9.2. Incentives levels for different types of households in FoodAPS-1**

Type of household	Incentive Amount
Single Adult households	
One person household	\$130
No youth or teens	\$130
Youth only	\$142
Teens only	\$153
Youth and teens	\$166
Multiple Adult households	
Adults, no youth or teens	\$151
Adults and youth	\$162
Adults and teens	\$181
Adults, youth, and teens	\$197

The NFS Pilot will also provide a \$5 nonresponse incentive to households that complete the screener but refuse to participate in subsequent data collection

events: after the screener interview, after the initial interview and before training, after training, and during the reporting week.

## **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 NFS Pilot data is protected under the statute of the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), (PL-107-347). Households invited to participate in the NFS Pilot will be provided a Disclaimer Form (Appendix A3) that includes detailed disclosures regarding confidentiality. Households found to be eligible will also be asked to sign the Study Consent Form (Appendix A4). These documents provide assurance that all information which would permit identification of an individual or a household will be held confidential and will be used for statistical purposes only. They will assure respondents that providing answers to any or all questions is strictly voluntary. Interviewers will ensure that respondents have received and read the disclaimer prior to conducting the interviews.

ERS and Westat, ERS' contractor comply with the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), (PL-107-347). In conformance with existing law and Departmental regulations, it is the policy of the ERS that respondent identifiable information collected or maintained by, or under the auspices of, the ERS for exclusively statistical purposes and under a pledge of confidentiality shall be treated in a manner that will ensure that the information will be used only for statistical purposes and will be accessible only to authorized persons.

Per the Cybersecurity Enhancement Act of 2015, ERS data is further protected by the Department of Homeland Security (DHS) through cybersecurity monitoring of the systems that transmit ERS 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.

ERS and Westat will comply with the computer and staff requirements associated with CIPSEA, including PIA compliance and FISMA compliance. Data collection efforts will not begin until ATO is in place.

## **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 NFS Pilot are not considered sensitive. The Pilot includes questions on income that some participants may consider sensitive. The collection of household income is needed for a few reasons. First, income will be used to screen households to participate in the Pilot. The Study targets four groups of households based on whether or not they participate in SNAP and their income level relative to the Federal Poverty Guidelines. The household screener contains questions on the household's participation in SNAP, household size, and total household income to appropriately categorize and determine survey eligibility. SNAP 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 or older to

report income amounts within detailed categories. The respondent is asked about income during the data collection week in an income worksheet to help compile total household income which is then confirmed during the final interview.

Participation in this pilot study 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 Appendix A9.

Table A.12.1 presents the sample size, annual frequency of response, reporting burden for responders and non-responders, hourly rate and the annualized cost to respondents. In the bullets below we provide a brief explanation of how the burden was estimated.

Data collection events are broken down by those that are completed at the household level and those completed at the person level.

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

For some of the planned data collection activities in the NFS Pilot, a single person in each household will be responding. For other data collection activities and training, there will be multiple respondents per household. Table A.12.1 is first divided into data collection and training tasks 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.

In calculating response burden, average household size was estimated using the 2014 American Community Survey (ACS) estimates for households in the 48 contiguous states. The original burden table developed for the 60 day Federal Register Notice (FRN) used 2.4 as the estimated number of persons per household. Burden estimates in Table A.12.1 are slightly different as we now break them down by age. We assume the average number of 0-10 year olds per household is 0.4, the average for 11-15 year olds is 0.2 per household, and the average for 16+ year olds is 2.1 per household.

All displayed estimates in Table A.12.1 are rounded to the nearest integer.

### **Household Level Data Collection**

- Advance Letters. Mailed to 2,500 addresses. Based on prior survey work, we anticipate 346, or 13.8%, will be returned as undelivered. 2,154 will receive the letter. Assuming each household spends an average of 3 minutes reading the letter, the burden for all households is 108 hours.
- Disclaimer Form. Interviewer hands it to each of the 2,154 contacted households and explains the NFS Pilot requirements. This should take about 2 minutes for each household, or 72 hours across all households.
- Household Screener. About 1,551 households (72%) will complete the screener interview which will take an average of 12 minutes to administer, or a total of 310 hours. Interviewers will spend about 1 minute with each of the 603 nonresponding households, or 10 hours total. Total screener burden across all households is 320 hours.
- Consent Forms. An estimated 796 of the 1,551 households, or 51.3%, will be eligible to participate in the NFS Pilot. The remaining 755 households will be ineligible and not asked to sign the consent form. An adult household member in the 796 eligible households will be asked to review

and sign the consent form agreeing to the household's participation in the NFS Pilot. They will also be asked to sign a parental consent form if the household has children between the ages of 11 and 18. Expected burden for both consent forms will average 5 minutes per household, or 66 hours across all eligible households.

- Initial Household Interview. Of the 796 survey-eligible households, an estimated 593 households (74.5%) will complete the initial interview. The interview will take an average of 30 minutes to administer, or 297 hours total across these households. The remaining 203 households will drop out after the interviewer has spent an average of 3 minutes per household, or 10 hours total, trying to gain their cooperation.
- Final Household Interview. The interview will take about 30 minutes to administer. We expect to complete it with 534 households (about 90% of 593) for a total of 267 hours. The remaining 59 households are expected to drop out after the interviewer has spent about 3 minutes per household, or 3 hours total, trying to gain their cooperation.
- Respondent Feedback Form. About 95% of the 534 households completing the Final Household Interview, or 507, will agree to provide feedback and spend about 2 minutes answering a brief questionnaire. The total burden is 17 hours. Interviewers will spend about 3 minutes per household trying to convince the remaining 27 households to complete the feedback form, for an additional burden of about 1 hour.
- Nonresponse Form. This form will take about 3 minutes to complete and will be administered whenever a household refuses to continue to participate. We will attempt to complete it with an estimated total of 362 households (203 households who refuse to complete the initial interview, 57 households  $((12+124)/2.4)$  who refuse the training, and 102 households  $((21+224)/2.4)$  who stop completing the Food Log. Since information for individuals under age 11 is obtained via proxy, these households are included in the counts for households with individuals 16 years and above. An expected 217 (about 60%) of these households will answer the questions, spending 11 hours in total. The remaining 145 households will refuse. However, the interaction with these households is still expected to average 1 minute each, for a total of 2 hours.

## **Individual Level Data Collection**



- Training. Assuming an average of 2.1 persons age 16+ in each of the 593 households completing the Initial Interview, we will attempt to train about 1,245 persons in this age group, with training lasting about 45 minutes. An expected 1,121, or 90%, of the persons will spend a total of 841 hours being trained. The remaining 124 persons will drop out either because they refuse to be trained or the interviewer determines they could not be trained. This interaction with the 124 persons is expected to average 3 minutes each, or 6 hours total.

Children aged 0-10 years will not be filling out Food Logs and will need no training. Children aged 11-15 years will be filling out Food Logs and will be trained. An expected 107 will be trained for a total burden of 80 hours. Interviewers are expected to spend an average of 3 minutes interacting with each of the remaining 12 children in this group, for an additional total burden of 1 hour.

- Income Worksheet. 1,121 persons aged 16 and up will be asked to provide information on income. Assuming a 77.9% response rate, an estimated 873 persons will complete the worksheet. Estimated burden is 15 minutes per respondent, or 218 hours across all respondents. The remaining 248 persons will either refuse or have no income to report. Their estimated burden is 3 minutes per person, or 12 hours total.
- Assent/Consent Form. The first time each participant between the ages of 11 and above accesses the web system they will need to check a box indicating that they agree to take part in the study. This should take an average of 1 minute per participant whether they agree or not, for a total of 21 hours across all individuals (2 hours for individuals between 11 and 15 years, and 19 hours for those above age 16).
- Food Log. Logs will be requested for an estimated 1,441 individuals (i.e., 213 proxy individuals for children age 0-10, 107 individuals age 11-15, and 1,121 individuals age 16+). We expect to receive completed logs from an estimated 1,153 individuals, or 80%. The Food Log is expected to take about 25 minutes per day to complete, for a total of 3,363 hours (496 hours for proxy entries, 251 hours for 11-15 year olds, and 2,616 hours for persons 16 years or older). We anticipate that we will not receive logs for 288 individuals (43, 21 and 224, respectively, by age group), 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 their participation, for a total burden of 100 hours (15+7+78).

- Meals and Snacks Form. We will request these forms for 1,441 individuals (213 proxy individuals for children age 0-10, 107 individuals age 11-15, and 1,121 individuals age 16+) each day. We estimate that we will receive completed forms for 1,153 individuals, or 80% are expected to do so. At an estimated average burden of 3 minutes per day, total burden is 404 hours (60+30+314 by age group). For the remaining 288 non-responding individuals, estimated burden is 1 minute per day, or a total of 33 hours (5+2+26 by age group).
- Recall Interview. Up to two persons in each of the 534 households completing the Final Interview, or 1,068 persons or their proxies, will be invited to participate in a 20 minute recall interview to go over their past two days of food acquisitions. An estimated 961 persons (or their proxies for minors), or 90%, will spend a total of 321 hours participating. The distribution of the 961 persons across the age groups assumed 23 percent of those selected would be between the ages of 0 to 10 years, 11 percent between the ages of 11 to 15 years, and 66 percent above age 16. The 107 non-responders will average 1 minute each in considering the request, for a total of 1 burden hour.

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

The last two columns in Table A.12.1 display the hourly rate and total annualized cost to complete each data collection event. The hourly rate of \$25.53 is the preliminary April 2016 Bureau of Labor Statistics estimate of average hourly earnings of all employees on private nonfarm payrolls. The annualized cost for each data collection event 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 NFS Pilot is 6,575 hours and \$167,860 respectively.

Table A.12.1. Respondent burden and cost estimate

Reporting Burden

Instrument	Sample Size	Freq	Responses				Non-response/Not eligible				Total Burden Hours	Hourly Rate	Total Annualized Costs
			Count	Freq x Count	Min./ Resp.	Burden Hours	Count	Freq x Count	Min./ Resp.	Burden Hours			
<b>Household-Level Data Collection</b>													
Advance letters	2500	1	2154	2154	3	108	346	346	0	0	108	\$25.53	\$2,757.24
Disclaimer Form	2154	1	2154	2154	2	72	0	0	0	0	72	\$25.53	\$1,838.16
Household Screener	2154	1	1551	1551	12	310	603	603	1	10	320	\$25.53	\$8,169.60
Consent Forms	1551	1	796	796	5	66	755	755	0	0	66	\$25.53	\$1,684.98
Initial Household Interview	796	1	593	593	30	297	203	203	3	10	307	\$25.53	\$7,837.71
Final Household Interview	593	1	534	534	30	267	59	59	3	3	270	\$25.53	\$6,893.10
Respondent Feedback Form	534	1	507	507	2	17	27	27	3	1	18	\$25.53	\$459.54
Nonresponse Form	362	1	217	217	3	11	145	145	1	2	13	\$25.53	\$331.89
<b>Total Responding Burden - HH</b>	<b>2154</b>		<b>2154</b>			<b>1148</b>				<b>26</b>	<b>1174</b>	<b>\$25.53</b>	<b>\$29,972.22</b>
<b>Individual-Level Data Collection</b>													
<b>Age 0-10 (report by proxy)</b>													
Food Log	213	7	170	1190	25	496	43	301	3	15	511	\$25.53	\$13,045.83
Meals and Snacks Form	213	7	170	1190	3	60	43	301	1	5	65	\$25.53	\$1,659.45
Recall Interview	123	1	111	111	20	37	12	12	1	0	37	\$25.53	\$944.61
<b>Total Responding Burden - Ind.</b>	<b>237</b>		<b>213</b>			<b>593</b>				<b>20</b>	<b>613</b>	<b>\$25.53</b>	<b>\$15,649.89</b>
<b>Age 11-15</b>													
Training	119	1	107	107	45	80	12	12	3	1	81	\$25.53	\$2,067.93
Assent Form	107	1	86	86	1	1	21	21	1	1	2	\$25.53	\$51.06
Food Log	107	7	86	602	25	251	21	147	3	7	258	\$25.53	\$6,586.74
Meals and Snacks Form	107	7	86	602	3	30	21	147	1	2	32	\$25.53	\$816.96
Recall Interview	59	1	53	53	20	18	6	6	1	0	18	\$25.53	\$459.54
<b>Total Responding Burden - Ind.</b>	<b>119</b>		<b>107</b>			<b>380</b>				<b>11</b>	<b>391</b>	<b>\$25.53</b>	<b>\$9,982.23</b>
<b>Age 16+</b>													
Training	1245	1	1121	1121	45	841	124	124	3	6	847	\$25.53	\$21,623.91
Income Worksheet	1121	1	873	873	15	218	248	248	3	12	230	\$25.53	\$5,871.90
Consent Form	1121	1	897	897	1	15	224	224	1	4	19	\$25.53	\$485.07
Food Log	1121	7	897	6279	25	2616	224	1568	3	78	2694	\$25.53	\$68,777.82
Meals and Snacks Form	1121	7	897	6279	3	314	224	1568	1	26	340	\$25.53	\$8,680.20
Recall Interview	886	1	797	797	20	266	89	89	1	1	267	\$25.53	\$6,816.51
<b>Total Responding Burden - Ind.</b>	<b>1245</b>		<b>1121</b>			<b>4270</b>				<b>127</b>	<b>4397</b>	<b>\$25.53</b>	<b>\$112,255.41</b>
<b>Total Responding Burden</b>						<b>6391</b>				<b>184</b>	<b>6575</b>	<b>\$25.53</b>	<b>\$167,859.75</b>

## **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 \$2,150,716. This cost includes both direct Federal labor costs and contract costs.

Direct Federal labor costs are \$300,339 over three years: the two years of the contract to develop and test the NFS Pilot, and one year of planning for the pilot prior to contract award. On an annualized basis, direct Federal labor costs are \$100,113.

Total contract costs are \$2,980,367 for the main contract and \$735,455 for NFS Pilot-related tasks in a separate contract awarded in June 2016. On an annualized basis, the combined contract costs are \$2,050,603.



## **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.**

There are no plans to make public the findings from the NFS Pilot. The results of the Pilot will be used by the USDA to inform the sample design and data collection methodology for the next FoodAPS.

The planned schedule for the study is displayed in Table A.16.1.

Table A.16.1. NFS Project schedule

<b>Activity</b>	<b>Complete by MDDYYYY</b>
Draw sample	07/30/2016
Select field interviewers	10/16/2016
Train field staff	10/29/2016 - 11/06/2016
Conduct pilot test	11/09/2016 - 2/09/2017
Draft analysis report	05/30/2017
Final analysis report	06/30/2017

## **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**

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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.