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Evaluation of Demonstration Projects to End Childhood Hunger: Final Interim Evaluation Report

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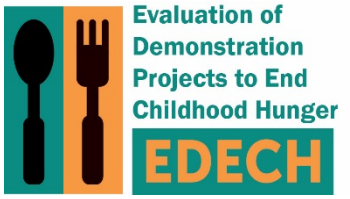
REPORT



FINAL REPORT (TASK 9.4)

Evaluation of Demonstration Projects to End Childhood Hunger (EDECH): Final Interim Evaluation Report

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EXHIBITS

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AAPOR	American Association for Public Opinion Research
AZ	Arizona
C	Control
CACFP	Child and Adult Care Food Program
CATI	Computer-assisted telephone interview
CEP	Community Eligibility Provision
CN	Chickasaw Nation
CNNS	Chickasaw Nation Nutrition Services
EBT	Electronic benefits transfer
EDECH	Evaluation of Demonstration Projects to End Childhood Hunger
ERS	Economic Research Service
FDPIR	Food Distribution Program on Indian Reservations
FI-C	Food insecurity among children
FI-HH	Food insecurity among household
FNS	Food and Nutrition Service
FPL	Federal poverty level
FRP	Free or reduced-price
FY	Fiscal year
GED	General Education Development
HH	Household
HHFKA	Healthy, Hunger-Free Kids Act of 2010
IRB	Institutional Review Board
ITO	Indian Tribal Organization
KY	Kentucky
MIS	Management information system
NSLP	National School Lunch Program
NM	New Mexico
NV	Nevada
OK	Oklahoma
OMB	Office of Management and Budget
P.L.	Public Law

RCT	Randomized controlled trial
SBP	School Breakfast Program
SEBTC	Summer Electronic Benefits Transfer for Children
SFSP	Summer Food Service Program
SNAP	Supplemental Nutrition Assistance Program
SSI	Supplemental Security Income
SY	School year
T	Treatment
TANF	Temporary Assistance for Needy Families
USDA	United States Department of Agriculture
VA	Virginia
VLFS	Very low food security
VLFS-C	Very low food security among children
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children

EXECUTIVE SUMMARY

Section 141 of the Healthy, Hunger-Free Kids Act (HHFKA) of 2010 provided $40 million in funding to test innovative strategies for ending child hunger and food insecurity. Section 23 (b) authorized the Secretary of Agriculture to carry out and evaluate demonstration projects to end childhood hunger. The legislation required an independent evaluation of each demonstration project, using rigorous experimental designs and methodologies, to produce scientifically valid evidence of project impacts on children's food security—the Evaluation of Demonstration Projects to End Childhood Hunger (EDECH). This interim report describes the planning, early implementation activities, and the findings from the baseline household surveys for four of the five demonstration projects[1] that are being implemented and evaluated in three States and one Indian Tribal Organization:

- **Chickasaw Nation Nutrition Services** (awarded $9.7 million) and its partner, Feed the Children, are providing monthly home delivery of one food box per eligible child to an estimated 2,100 households and 4,500 children ages 4 and older who are eligible for free school meals in their public elementary, middle, or high schools; or attending a school where all children receive free school meals. Each monthly food box contains shelf stable foods purchased for approximately $40 and a voucher for purchasing fruits and vegetables. ***The Chickasaw Nation Nutrition Services Packed Promise*** demonstration project is operating for 24 months in 12 rural counties in Oklahoma within Chickasaw Nation. Households in the treatment group attend one of 20 selected school districts. They will be compared against a control group of households in 20 similar school districts.
- The **Kentucky Cabinet for Health and Family Services** (awarded $3.6 million) is providing an additional benefit to enhance SNAP benefits for eligible households through the ***Ticket to Healthy Food Supplemental Nutrition Assistance Program Demonstration***. This benefit is designed to target rural households with children under 18 with high transportation costs, including those residing far from full-service grocery stores. The additional benefit to eligible households translates to approximately $45–55 monthly. Approximately 2,800 households in 17 rural counties in southeastern Kentucky were randomly assigned to receive the benefit for 15 months. They will be compared to a control group of similar households in the same counties, which will receive only the standard SNAP benefit.
- **The Nevada Division of Public and Behavioral Health** (awarded $3.1 million) implemented a 12-month demonstration (from June 1, 2016 to May 31, 2017) with the **Nevada Division of Welfare and Supportive Services** and its partners. Households eligible for the Supplemental Nutrition Assistance Program (SNAP) with children up to age 5 and incomes below 75% of the federal poverty level received an additional $40 per month per eligible child to enhance their household SNAP benefits relative to a business-as-usual control group. A second treatment group received the same additional grant benefits, plus nutrition education and case management, to help them access additional nutrition assistance programs. Both treatment groups in the ***Nevada Healthy Hunger Free Kids Project***

[1] A fifth demonstration project in Navajo Nation is being implemented but not evaluated.

included approximately 2,500 eligible children in 1,900 SNAP households randomly selected to receive the benefit in Las Vegas (Clark County) for 12 months.

- **The Virginia Department of Education** (awarded $8.8 million) is providing 19 participating treatment schools with (1) three school meals a day to all children during the school year and food for weekends and school breaks, (2) $60 monthly in electronic benefits transfer (EBT) during the summer for each child eligible for free or reduced-price school meals, and (3) nutrition education for parents and guardians. ***The Virginia Hunger-Free Kids Act Demonstration Project***, a 24-month project, is serving an estimated 7,700 children living in 3,700 households who attend the participating treatment schools in Richmond and eight counties in rural southwest Virginia. They will be compared against a control group of households in 19 similar schools.

During the planning and early implementation period, grantees obtained consent from eligible households for the demonstration and evaluation, and prepared to deliver demonstration benefits. Chickasaw Nation used an active consent process, whereas the other three projects used passive consent. Chickasaw Nation had to recruit and establish agreements with participating school districts to distribute consent forms and, with its partner, Feed the Children, decide on the content of the food boxes, set up the food-ordering website, develop a system to track the services provided, and select retailers to accept the vouchers. Virginia recruited and informed school districts and schools in two sites (southwest Virginia and Richmond) about the demonstration and whether they were randomly selected to receive benefits. It also raised awareness about the demonstration in school communities and worked with food banks on packing and distributing food packs to students in local schools. Both Nevada and Kentucky contracted with new EBT vendors at the same time they were planning for and implementing the mechanism to deliver demonstration SNAP benefits.

The evaluation contractor, Mathematica Policy Research, developed the study design and data collection protocols. The study design relies on random assignment—the gold standard method in evaluations—for estimating the impact of a demonstration on children's food insecurity (FI-C), the primary study outcome. Mathematica randomly assigned households, schools, or school districts (depending on each project's design) to a treatment or control group. Follow-up surveys will capture the experiences and FI-C rates of participating households during the demonstration periods. The evaluation team conducted a site visit to each demonstration project during its planning and early implementation period, and provided ongoing technical assistance on recruitment and enrollment, consent processes, and the evaluation requirements.

Baseline surveys (n = 10,745 in total) were conducted by telephone on a staggered schedule, depending on the projects' timelines, from October 2015 through November 2016. In general, households in each project scored low on markers of social and economic status. In Kentucky and Nevada—the two SNAP-based projects—9 out of 10 households (94%) were living in poverty; in Chickasaw Nation and Virginia, 6 out of 10 households were doing so. Median monthly income ranged from $1,000 in Kentucky and Nevada to $1,600 in Virginia and $1,700 in Chickasaw Nation. The baseline rate of FI-C over the last 30 days—the primary outcome of the impact evaluation—ranged from 22% in Virginia to 35–37% in the other three projects. The FI-C rate in Virginia was comparable to the national rate for households with children in poverty in 2015 (21%) (Coleman-Jensen et al. 2016). The rates in Chickasaw Nation, Kentucky, and Nevada were far higher than the national rate.

This interim report covers EDECH grantee and study activities from February 2015 through the completion of the baseline surveys that were conducted from October 2015 through November 2016, leading up to the start of the interventions in each of the demonstration projects. Future evaluation reports for each project will include the impact findings based on the follow-up surveys, the implementation findings based on site visits conducted during the implementation and operations periods, qualitative findings based on focus groups and one-on-one in-depth interviews with participants, and analysis of cost and other project-specific data (for example, administrative data or management information system data) collected during the operations period. In addition, an integrated report and a summary report describing the final findings in all four demonstrations also are planned.

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I. INTRODUCTION

A. Policy context

Households in poverty often struggle to meet the food needs of household members. A household's ability to do this—its food security—is a function of available resources, competing demands for those resources, and the cost of acquiring food (Nord et al. 2014). In 2015, almost one in five Americans in families with children (19.2%) were living in poverty (Proctor et al. 2016), putting both children and adults at risk of food insecurity. In the same year, 42.9% of below-poverty households with children experienced food insecurity (FI-HH) at some time during the year. One in five families living in poverty (20.9%) experienced food insecurity among the children (FI-C) (Coleman-Jensen et al. 2016). Further, there is evidence that food insecurity may affect children's health, psychosocial development, and educational attainment (National Research Council and Institute of Medicine 2013; Nord 2009).

Food insecurity occurs when the food intake of one or more household members is reduced and their eating patterns are disrupted because the household lacks money and other resources for food) (Economic Research Service (ERS) 2016). Food insecurity can be measured at the household, adult, and child levels.

The U.S Department of Agriculture's (USDA) Food and Nutrition Service (FNS) administers 15 nutrition assistance programs designed to ensure that low-income Americans do not go hungry and have access to healthful and nutritionally adequate diets (FNS 2016). Despite high participation in the Supplemental Nutrition Assistance Program (SNAP),[2] the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC),[2] and the National School Lunch Program (NSLP),[3] rates of food insecurity among low-income households with children have not substantially decreased, although some improvements in FI-C and very low food security among children (VLFS-C) have been observed since the highs of the 2008–2012 period (Coleman-Jensen et al. 2016). Given the sizable variation in household and environmental factors associated with food insecurity, more evidence is needed on the most effective ways through which federally-funded programs can combat child food insecurity.

The Childhood Hunger Demonstration projects address concerns about the effects of poverty and food insecurity on low-income children and their families. In the Healthy, Hunger-Free Kids Act of 2010 (HHFKA), Congress called for the development and independent outcome evaluation of innovative strategies to "reduce the risk of childhood hunger or provide a significant improvement to the food security status of households with children," including alternative models of service delivery or benefit levels (FNS 2017d; U.S. Congress, P.L. 111-296, 2010). For eligible households with children, the legislation allowed for projects that enhanced benefits from SNAP or other federal, State, or local assistance programs, or tested innovative program delivery models (for example, in weekend backpacks or after school snack

[2] In fiscal year (FY) 2016, 44.2 million people participated in SNAP (FNS 2017a) and 7.7 million women and children participated in WIC (FNS 2017b). In both programs, total participation decreased slightly compared to the 2011–2014 period.

[3] Participation in NSLP has continued to increase in the past decade to 30.4 million children (FNS 2017c). In FY 2016, 73% of all school lunches were free or reduced-price (FRP) (FNS 2017c).

programs). At least one demonstration project was to be implemented in a rural Indian reservation where the prevalence of diabetes exceeds 15%. HHFKA provided $40 million to USDA to conduct and rigorously evaluate the demonstration projects.

B. Overview of the EDECH study

The Evaluation of Demonstration Projects to End Childhood Hunger (EDECH) study investigates the impact of four independent demonstration projects on food insecurity among children, the primary outcome. The demonstrations ranged from 12 to 24 months in duration and targeted low-income households with children. This section describes the study objectives, components, and timeline.

1. Study objectives

EDECH is assessing the impacts, implementation, and costs of four independent demonstration projects. The evaluation has seven study or research objectives (see Appendix A.1); the first two are addressed in the interim report:

1. To describe each demonstration project in detail
2. To describe the processes involved in the implementation and operation of each demonstration project

This interim report describes the vision for each demonstration, the activities and strategies undertaken by grantees during the planning or pre-implementation period, and the characteristics of the sample population that participated in the evaluation's baseline survey. Research objectives 3 through 7 will be addressed in the impact, implementation, and cost study components (described in the next section) and the findings will be included in future evaluation reports.

2. Evaluation framework

EDECH's evaluation design uses a rigorous approach to estimating impacts, based on a randomized controlled trial (RCT) in each demonstration project (intervention). The **impact study** measures project (demonstration) impacts by comparing outcomes between the treatment and control groups' to derive estimates of the interventions on outcomes. Each project has one follow-up survey approximately 12 months after the baseline survey, and one project that operates for 24 months has a second follow-up survey. Key outcomes are collected through the surveys and complemented with administrative data to assess the fidelity of project implementation, service take-up rates, and the nature and intensity of services that project participants receive.

As part of the **implementation study**, in-person interviews were conducted with State, local, and Tribal agency directors/managers. These interviews assessed project outreach and recruitment strategies during the planning and early implementation period. Later stages of the evaluation include another round of in-person interviews with grantees and monitoring of service provision during the implementation period, focus groups with demonstration project participants, and in-depth interviews with a subset of the impact study participants. Finally, information on demonstration projects' costs will be collected from grantees and partners, when

applicable, to understand the resources needed to implement each of the projects for the **cost study.**

3. Evaluation timeline

Exhibit I.1 provides the completed and future milestones of the evaluation beginning with the award of the grants for demonstration projects.

Exhibit I.1. Milestones in the EDECH evaluation

Date	Activity
February 2015	USDA awarded the demonstration grants.
March 2015	Orientation meeting for EDECH grantees and public announcement of awards
March 2015 – December 2016 for early implementation[a] and February 2016 – March 2018 for implementation/operations	Evaluation team provided technical assistance to grantees during the planning period, and during the implementation/operations period for the collection of administrative, management information system (MIS), and cost data
June – July 2015[b]	Obtained study approval from the New England Institutional Review Board (IRB), and IRBs in tribal demonstration projects, including approval for projects' recruitment materials, consent forms, and data collection plans
August 2015	Obtained approval and clearance by the Office of Management and Budget (OMB)
August 2015 – June 2016	Established memoranda of understanding with grantees to collect project-specific data
October 2015 – May 2016 (three projects); August – November 2016 (one project)	Obtained household lists from grantees and conducted baseline data collection by telephone; conducted random assignment before or after the baseline survey, depending on the project
November 2015 – October 2016	Conducted in-person site visits to grantees during the early implementation period
January 2017 – June 2017 (3 projects) and August – November 2017 (1 project)	Conducted the first follow-up survey by telephone including field location in four projects
October 2016 – Fall 2017	Conduct in-person site visits to grantees during the implementation period, including focus groups with participants
August[c] – November 2017	Conduct the second follow-up survey in one project by telephone including field location
Fall 2017	Conduct in-person site visit to one grantee during the late implementation period, including focus groups with participants
April 2017 – Fall 2017	Conduct in-depth-interviews with participants
2017 – 2018	Analyze survey, administrative, cost, MIS, process, and qualitative data for each demonstration project
Post data analysis[d]	Prepare project-specific evaluation reports, an integrated evaluation report, and a summary report; provide briefings to USDA policy and research staff; prepare manuscript for submission to a peer-reviewed journal

[a] This interim report focuses on the planning and early implementation period and baseline survey findings for all four projects.

[b] Initial approval. Revisions and annual approvals were obtained in 2016 and 2017.

[c] Call-ins were accepted on July 31, 2017.

[d] The schedule for evaluation reports is variable across projects and contingent upon the receipt of projects' final data required for the evaluation.

EDECH = Evaluation of Demonstration Projects to End Childhood Hunger; IRB = institutional review board; MIS = management information system; OMB = Office of Management and Budget; USDA = United States Department of Agriculture.

C. Demonstration projects and sources of data for the interim report

Exhibit I.2 summarizes the five EDECH demonstration projects funded by USDA and their evaluation designs. This report focuses on the four projects listed which have RCT designs and baseline survey data. A fifth project in Navajo Nation focuses on capacity building and outreach to communities by local food access navigators to increase participation in nutrition assistance programs. Due to the nature of the intervention in Navajo Nation, a rigorous impact study could not be conducted and therefore a baseline survey was not conducted.

Exhibit I.2. Overview of EDECH demonstration projects

Grantee	Location	Services	Target population	Duration (start month)	Evaluation design[a]
Chickasaw Nation	40 school districts located in 12 rural counties in OK[b]	Monthly home-delivered food boxes containing shelf-stable, nutritious foods and a $15 voucher for fresh fruits and vegetables	Children eligible for free school meals or attending a school where all children receive free school meals	24 months (February 2016)	Cluster-level RCT (school districts)
Kentucky	17 rural counties in eastern KY	Approximately $45 to $55 average increase in monthly SNAP benefits, calculated as a fixed income deduction based on the county's average distance to the grocery store plus a 10% earned income deduction	SNAP households residing far from grocery stores, with children under age 18 and positive net income	15 months (January 2017)	Single arm household-level RCT
Navajo Nation	3 rural regions in NM and AZ	Collaboration with schools and communities to increase the availability of and enrollment in nutrition assistance programs based on asset and gap assessments	Children under age 18	12 or more months (September 2016)	n.a.[c]
Nevada	12 zip codes in Las Vegas (Clark County)	$40 per month EBT benefits per eligible child (treatment group 1), or $40 EBT benefits plus case management and nutrition education (treatment group 2)	SNAP-eligible children up to age 5 whose household incomes are below 75% of the federal poverty level	12 months (June 2016)	Two arm HH-level RCT
Virginia	38 schools in rural southwest schools and Richmond City schools[d]	(1) 3 meals during the school day and food packages for weekends and school breaks, (2) $60 monthly summer EBT benefits per eligible child, and (3) nutrition education for parents and guardians	All children are offered school meals and food packages for weekends and school breaks; those eligible for FRP school meals are also offered summer EBT benefits	24 months (June 2016)[e]	Cluster-level RCT (schools)

[a] For an RCT design, households or groups of households (under a cluster-level RCT) are randomized into either a treatment group that receives the intervention (single arm or multi-arm with more than one distinct intervention) or a control group that does not receive any of them.

[b] There are 20 treatment school districts and 20 control school districts.

[c] The project is being implemented, but not evaluated.

[d] 40 schools were randomized, but school consolidations and drop-outs resulted in 38 schools in the evaluation. There are 10 treatment and 10 control schools in southwest Virginia and 9 treatment and 9 control schools in Richmond.

[e] The evaluation of the Virginia demonstration project covers Fall 2015 through Spring 2017 (SY 2015–2016 and SY 2016–2017). Summer EBT benefits were provided in 2016 and 2017.

AZ = Arizona; CEP = Community Eligibility Provision; EBT = electronic benefits transfer; FRP = free or reduced-price; HH = household; KY = Kentucky; NM = New Mexico; OK = Oklahoma; RCT = randomized controlled trial; SNAP = Supplemental Nutrition Assistance Program; SY = school year.

Appendix A.1 provides an overview of the evaluation approach, including the sample, data sources, and main outcomes for each of the study's seven objectives. To address this report's research objectives, the following sources were used:

- document reviews (e.g., grantees' applications and materials developed for participants)
- technical assistance to, and communication with, grantees
- site visits to grantees during the planning/early implementation period
- project-specific sample frames
- baseline household surveys

Each grantee provided information on their target sample population in the demonstration area, as well as characteristics of households that consented to the demonstration and evaluation. This information was used along with grantees' applications and other documents to describe the target populations and planned intervention in each project. The baseline survey data were used to describe the characteristics of the consented eligible households in each of the four projects prior to the implementation of the intervention.

D. Organization of remainder of report

The next chapter describes the demonstration projects in more detail, including each grantee's organizational structure and any partners, the local context, the demonstration area and target population, and the intervention and schedule for the project. Chapter III provides information on the household and child characteristics of project participants, based on the baseline survey. Chapter IV provides a summary of the EDECH study's progress to date and plans for the remainder of the study. In addition to the research objectives and evaluation overview, Appendix A provides technical information on the methods used for random assignment, creating weights, conducting analysis, and the CONSORT Flow Diagram[4] for each demonstration project from recruitment through the baseline survey. Appendix B describes the baseline survey data collection methods and includes the baseline survey instrument. Appendix C includes supplemental baseline data tables.

[4] The CONSORT Flow Diagram shows the flow of participants from the recruitment stage, through consent, random assignment, and follow-up in each demonstration project (Schulz et al. 2010). See Appendix A.3.

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II. GRANTEE PLANNING AND EARLY IMPLEMENTATION

This chapter provides information to address study objectives #1 and #2 (Appendix A.1) by: (1) describing each demonstration in detail, and (2) describing the processes involved in the early implementation of each project. These descriptions are based on a review of grant applications, ongoing technical assistance calls with the grantee, and site visits to grantees and their partners during the early implementation period. Thus, the project descriptions cover the period from grant awards (February 2015) through the grantees' planning and early implementation period through the end of the household baseline data collection period, which varied across projects (February 2016 in Chickasaw Nation; March 2016 in Nevada; May 2016 in Virginia; and November 2016 in Kentucky).

A. The demonstration projects

Each of the demonstration projects is described in detail in Exhibits II.1-II.4, including information on:

- Grant award
- Organizational background (of the grantee) and partners
- Target population
- Services (benefits) provided
- Recruitment of participants for the demonstration
- Household consent procedures (for the demonstration and the evaluation)
- Implementation timeline

Additional details about the random assignment procedures and sample sizes in each project are included in Appendices A.2 and A.3.

Exhibit II.1. Implementation of the Chickasaw Nation demonstration project

Organizational background and partnerships: Chickasaw Nation Nutrition Services (CNNS) was awarded $9,718,832 to provide an estimated[a] 2,100 eligible households and 4,500 children ages 4 and older who are eligible for free school meals in their public elementary, middle, or high school or are attending a school where all children receive free school meals with monthly home delivery of one food box per eligible child. CNNS has been responsible for nearly all of the project planning and design work to-date, working with three partner organizations:

- **Feed the Children** creates and maintains the food ordering website (with specifications from CNNS), acquires the food, stores and packages the food, and ships food boxes to participants' homes. They helped determine the contents of the food boxes by providing input on whether items could be obtained at a reasonable price.
- **Solutran** provides payment processing of the Fresh Checks and real-time electronic banking services (such as access to transaction data and check images). Solutran provides monthly data on household check redemption to CNNS, and reviews and audits payments for quality control.
- **Schools and school districts** were a partner for recruitment. They provided updated household addresses and telephone numbers for study participants.

Recruitment: In spring and summer 2015, Chickasaw Nation notified school districts about the demonstration and that if the district was selected to participate in the demonstration, households of eligible students would be able to receive demonstration benefits. All the school districts proposed for the sample frame agreed to participate and completed a memorandum of understanding with the grantee. Households with children enrolled in the 40 school districts in the sample frame were sent enrollment forms for the demonstration through school enrollment packets distributed in August 2015. Households with children enrolled in Community Eligibility Provision (CEP) schools who submitted the completed forms are eligible for benefits. Among households with children enrolled in non-CEP schools who submit the completed forms, only those with students certified for free school meals are eligible for benefits.

Household consent: The project conducted outreach through the schools and used an active consent process. CNNS distributed the consent forms through school enrollment packets in summer 2015. The consent materials informed households about the demonstration, eligibility criteria, evaluation objectives, potential risks and benefits, and procedures, and asked that they consent to participate in the evaluation and provide contact and other information to determine eligibility. Additional outreach efforts, which were recommended to all school districts but left to their discretion, included placing an announcement and copy of the consent form on the school's webpage, posting the enrollment deadline on the school's Facebook page, sending additional copies home in students' backpacks, and sending texts and automated reminder calls to parents. At all schools that hosted enrollment days for parents to complete paperwork onsite, CNNS staffed an enrollment booth at the event to answer questions and obtain completed paperwork. CNNS noted that schools with the highest return rates for consent forms engaged in one or more of the following activities: (1) listed the consent form as a required enrollment document; (2) allowed CNNS to staff a booth during enrollment days; and/or (3) placed automated telephone calls to parents to remind them about the project.

Implementation timeline: The project is operating for 24 months, from February 2016 through January 2018, in 40 school districts located in 12 rural counties within Chickasaw Nation (located in Oklahoma). Enrolled households in treatment districts were sent a congratulations letter with food ordering instructions, and a catalog illustrating the types of food items in the five food box choices[b] on January 7, 2016. The demonstration enrolled households which began ordering and receiving food boxes in February 2016.

[a] By the end of September 2015, CNNS received consent forms from 4,875 eligible households with 10,185 eligible children, or nearly half of the potentially eligible population. Half of this consented group, or roughly 2,440 households, were expected to receive demonstration benefits.

[b] Each food box contains shelf-stable foods selected by CNNS's Registered Dieticians (6 protein-rich items, 2 dairy items, 4 grain items, 4 cans of fruit, and 12 cans of vegetables), along with recipes and nutrition information. The food items are pre-assembled in five different food box packages from which participants choose each month. Households order their food box online through a website developed for the project, or by telephone with project staff. Additionally, each food box includes a $15 cash voucher to purchase fresh and/or frozen fruits and vegetables from authorized retailers.

Exhibit II.2. Implementation of the Kentucky demonstration project

Organizational background and partnerships: The Kentucky Cabinet for Health and Family Services was awarded $3,566,810 to provide an additional benefit on Electronic Benefits Transfer (EBT) cards to enhance SNAP benefits for eligible households. The benefit is determined through a fixed transportation deduction from income, based on each demonstration county's average distance to the grocery store and an additional earned-income deduction equal to 10% of earned income. Within the Cabinet for Health and Family Services, the formal lead organizations are the Department for Community Based Services (DCBS) and the Office of Administrative and Technology Services (OATS). DCBS is the formal grantee for this demonstration. OATS facilitates the technological aspects of the demonstration including working with the new EBT vendor to develop the system changes to handle the grant funds separately from regular SNAP benefits, both for the means of reporting them separately to FNS and allowing the grant funds to be used first when recipients use their EBT cards. Three partner organizations play key roles in the demonstration:

- **SOAR** is a State-federal initiative focused on revitalizing the economy, repairing roads, and reimagining the workforce, as well as other cultural and agricultural aspects of the eastern Kentucky region. SOAR staff brought together key stakeholders to discuss this grant application and provided input on target location and the benefits provided through the intervention.
- **An economics researcher at the University of Kentucky** designed the intervention for the grant application and provided input throughout the planning and implementation periods of the demonstration.
- **Deloitte** developed and managed the Benefind system, which houses the information and enrollment for the State-level assistance programs. Within this role, Deloitte updated the Benefind system to calculate and track the demonstration benefits for treatment households. Deloitte monitors the calculation of benefits each month and executes any necessary system changes throughout implementation.

Recruitment: Eligible households include those receiving SNAP benefits, with positive net income, and with children who are still under 18 when the demonstration ends in the 17 demonstration counties.[a] They were notified by the grantee about the demonstration, any benefit change, and the evaluation in August 2016.

Household consent: The number of households selected for the evaluation was 4,504. Households selected into the evaluation sample were contacted and informed about the study's objectives, potential risks and benefits, and procedures, and given an opportunity to decline to participate in the evaluation. Thus, consent was obtained through a passive process.

Implementation timeline: In FY 2016, Kentucky contracted with a new EBT vendor that could execute the systems adjustments necessary to disperse the grant benefits. The new vendor came on line in summer 2016, which delayed the timing of the intervention by several months. Kentucky also upgraded its SNAP eligibility system and subsequently modified it to administer the grant benefits. Project staff trained all eligibility supervisors statewide, who in turn trained eligibility workers so they would be aware of the demonstration project and the criteria for receiving the additional EBT benefits. In December 2016, approximately 2,800 households were randomly selected to receive the additional benefit from among those SNAP households in designated counties that have at least one child born after March 31, 1999 and positive net income. Distribution of demonstration benefits began on January 1, 2017 and continues through March 31, 2018. The remaining households in the evaluation serve as the control group.

[a] These counties include the eight counties in the Kentucky Highlands Promise Zone, a federal designation that provides the local community with federal support to implement its economic and community development goals [http://www.kypromisezone.com/].

Exhibit II.3. Implementation of the Nevada demonstration project

Organizational Background and Partnerships: The Nevada Division of Public and Behavioral Health (DPBH) was awarded $3,143,079 to provide additional grant benefits, nutrition education, and case management services to SNAP-eligible households with children up to age 5 and household incomes below 75% of the federal poverty level (FPL). During the demonstration, households randomly selected to be in one of the two treatment arms received a monthly grant benefit on their EBT card of $40 per child up to age 5 as of the demonstration's scheduled start. Households selected to be in the second treatment arm received the same monthly benefit plus nutrition education and case management to help them access nutrition assistance programs. A third randomly selected group served as the comparison or "control" group and received no additional benefits, nor did they receive access to the nutrition education and case management services offered by the demonstration.

The Division's WIC program was the formal lead organization. WIC chaired the grant writing process and was responsible for financial and quarterly reporting and grants management. WIC employed the demonstration director and nutrition education coordinator who created case management and nutrition education plans and materials, and were responsible for their implementation. The following partner organizations also played key roles in the demonstration project:

- **The Nevada Department of Welfare and Social Services Supplemental Nutrition Assistance Program** (DWSS-SNAP) unit acted as the lead for major planning decisions and in day-to-day-operations during the demonstration planning period. Throughout the planning and demonstration period, DWSS-SNAP was responsible for coordination and communications with DPBH, FNS, FIS (the EBT vendor) and Mathematica, and finalizing major decisions regarding the $40 monthly grant benefit. This included plans for defining the eligible sample, determining how to disburse benefits, notifying eligible households, building requisite data systems, and identifying other demonstration partners. The lead staff from DWSS-SNAP also worked closely with the demonstration director and nutrition education coordinator, and arranged for partnerships with East Valley Family Services and Lutheran Social Services Network.
- **The Nevada Department of Agriculture Food and Nutrition Service** contributed to the design of the demonstration during the grant application phase.
- **East Valley Family Services** and the **Lutheran Social Services Network** provided the case management services and nutrition class settings offered as part of the demonstration. East Valley Family Services also housed the hired demonstration staff.

Recruitment: Eligible households were living in the 12-zip-code[a] demonstration area, receiving SNAP benefits, had income of no more than 75% of the FPL, and had at least one child who was under 5 as of March 31, 2016. They were notified by DWSS about the evaluation in September 2015. The Nevada demonstration team at the State WIC agency established a dedicated project telephone line with a recorded message in English and Spanish, asking callers to leave their name and phone number. DWSS and WIC staff members returned calls to the numbers left on the messages.

Household Consent: The number of households selected for the evaluation was 7,246. Households selected into the evaluation sample were contacted and informed about the study's objectives, potential risks and benefits, and procedures, and given an opportunity to decline to participate in the evaluation. Thus, consent was obtained through a passive process.

Implementation timeline: The demonstration began in June 2016 and ran through May 2017. In 2016, Nevada contracted with a new EBT vendor to distribute SNAP benefits to all households statewide and grant benefits to eligible treatment group households. Contracting with a new EBT vendor delayed the project's start date by several months but also facilitated the issuance of grant benefits because the new vendor could add the grant benefits onto participants' existing EBT cards. Nevada disseminated the monthly grant benefits to treatment group households from June 2016 through May 2017. Nevada hired staff to develop and oversee case management in March 2017 and nutrition education in May 2017, for households in the second treatment group. These staff also arranged for and trained volunteer case managers, and developed a data system to track the delivery of case management and nutrition education. Case management was primarily delivered by telephone, and nutrition education generally consisted of in-person nutrition classes; both services were available in English or Spanish. Case management began in July 2016, and nutrition education classes began in September 2016. Both continued through the end of the demonstration.

[a] Zip codes 89030, 89101, 89106, 89108, 89110, 89119, 89142, 89156, 89104, 89121, 89122, and 89169.

Exhibit II.4. Implementation of the Virginia demonstration project

Organizational Background and Partnerships: The Virginia Department of Education (VDOE), awarded $8,803,902, is providing (1) three meals a day during the school day and packages of food for weekends and school breaks to all children in participating treatment schools, (2) $60 monthly EBT benefits during the summer for each treatment school child eligible for free/reduced-price school meals, and (3) nutrition education for parents and guardians. The project is serving an estimated 7,700 children living in 3,700 households who attend the participating treatment schools. It is operating for 24 months in 10 randomly selected schools in rural southwest Virginia and 9 randomly selected schools in Richmond City (one high school, 4 middle schools, and 14 elementary schools are included). In addition to the nine participating school divisions, nine partners support the project:

- **The Virginia Departments of Health and Social Services**, which coordinated setup of schools' CACFP meal service (Health) and of the summer EBT distribution (Social Services).
- **Feeding America Southwest Virginia** and **Central Virginia Foodbank**, which provided food pack content and delivered food packs to southwest and Richmond schools, respectively.
- **Virginia Cooperative Extension Family Nutrition Program**, which delivered nutrition education to parents and caregivers.
- **Share Our Strength**, which contributed to project design, raised awareness about the project goals, liaised between partner agencies and schools, and provided data and expertise to support implementation of benefits.
- **Virginia Foundation for Healthy Youth**, which assisted with the grant application and raised awareness about the demonstration.
- **Southeast United Dairy Industry Association**, which oversaw school divisions' applications for breakfast program food service equipment (e.g., coolers, carts) and funded equipment.
- **Office of the Governor**, which provided political support to focus the work and attract the attention of partner organizations and community members.

Recruitment: In spring 2014 in response to the request for application (RFA), Virginia assigned and notified 16 of 39 schools of their treatment/control status. In summer 2015, Mathematica assigned the remaining 23 of 39 schools. Virginia notified the schools about their treatment or control status. Two urban schools consolidated and then dropped out of the demonstration, leaving a total of 38 schools.[a] Schools are located in the Richmond City Public Schools division and in eight school divisions from southwest Virginia. All students in treatment schools are eligible to receive three free meals a day and food packs. Treatment school students were also eligible to receive the summer benefits; eligibility was limited to students certified for FRP school meals if students attended schools not operating under the Community Eligibility Provision. Households were eligible to be included in the evaluation sample if they included students attending demonstration schools. However, household eligibility was limited to those with students eligible for FRP school meals among schools not operating under the Community Eligibility Provision.

Household consent: The project used a passive consent process. Specifically, the project conducted outreach through school divisions. The DOE emailed evaluation consent form materials to school divisions in January 2016. The materials included (1) a DOE cover letter informing households about the demonstration benefits, eligibility criteria, and the Governor and First Lady's commitment to the project, and (2) the Mathematica study notification and passive consent letter in English and Spanish that provided families the opportunity to opt out of the evaluation.[b] All school divisions sent the letters home with students.[c,d] Among the 4,750 households sampled for the survey, five opted out of the study before data collection began. In March 2016, the DOE also provided school divisions with an informational flyer to share with schools and families at their discretion. The flyer described the project's purpose and goals, community partners, and the implementation process and timeline. Project team members have met with school nutrition directors to inform them about the project and also attended school open houses and back-to-school events in order to raise awareness of the demonstration.

Exhibit II.4. (*continued*)

Implementation timeline: During FY 2016, VDOE hired project staff, established regular communication with school divisions and partners, and began delivering the demonstration in treatment schools. VDOE and its partners finalized implementation plans, a timeline, school-level budgets and operational plans, the nutrition education curriculum (Eat Smart, Be Active, which is used in SNAP-Ed programs), and EBT data tracking systems. Eligible households received the monthly $60 EBT benefits per eligible child in June, July, and August 2016. Treatment schools began schoolwide distribution of school meals and food packages in August and September 2016. Finalizing school-level operational plans, which align with each school's resources and needs, was a challenge to overcome during the planning period. For example, schools had to consider the consequences for class and bus schedules when determining whether to serve supper meals before or after the end of the school day. Identifying food storage areas that met food safety and security requirements also required creative solutions for schools with little available storage space. To overcome this challenge, food banks visited each school to discuss delivery and storage options. The grantee raised awareness of the project through marketing materials and launch events.

[a] The two urban treatment schools were treated as two schools in the matched pair random assignment, so the cluster design is still based on 40 schools/clusters. The two schools that dropped out were not replaced in the sample.

[b] One school division indicated the school's treatment status in the letter.

[c] One school division attached a proof of receipt form for the parent to sign and return.

[d] One school division mailed the letters first; then for any undelivered letters, the division sent the letters home with the students. Another school division used the phone alert system to notify families the letters would be sent home.

B. Similarities and contrasts between demonstration projects

The four demonstration projects have the common goal of improving access to nutrition for children, but they also display diversity in key features of their design, planning, and target populations. In particular, demonstrations vary in the age of children targeted and the urbanicity of the demonstration area; the demonstration length and benefits; and the process used to recruit and engage demonstration participants.

Nevada's demonstration project targeted households with young children because one goal of the demonstration was to increase dual participation in SNAP and WIC among dually eligible households. In contrast, the demonstrations in Chickasaw Nation, Kentucky, and Virginia are focused on broader populations: households with school-aged children in Chickasaw Nation and Virginia, and households with children under age 18 in Kentucky.[5] Target populations also differ in whether they live in predominantly rural or urban areas. The Nevada demonstration, based in urban Clark County, and the Richmond site within the Virginia demonstration targeted households in urban areas. Demonstration projects in Chickasaw Nation and Kentucky, and the southwest Virginia school divisions in that State's demonstration, will provide evidence on interventions targeting childhood hunger in rural areas where the remoteness of grocery stores and/or transportation issues pose a substantial challenge.

[5] Children needed to be less than 18 years at the completion of the demonstration.

The demonstrations also vary substantially in duration: the Chickasaw Nation and Virginia projects run for 24 months; in contrast, Kentucky's demonstration runs 15 months and Nevada's ran 12 months.[6] The Kentucky demonstration differs from the others in that it does not include a nutrition education component. Each of the other three projects' plans included some level of nutrition education when designing their interventions, whether through schools (Virginia), demonstration staff (Nevada), or materials included in food deliveries (Chickasaw Nation). Additionally, Virginia paired their primary demonstration benefits with summer electronic benefits transfer (EBT) benefits to offset the potential loss of school-based nutrition resources during the summer months. Chickasaw Nation provided SEBTC benefits to households in the summer.

Finally, the early implementation processes and challenges encountered by demonstration teams differed across demonstrations. Nevada and Kentucky both contracted with new EBT vendors at the same time that they were planning for the mechanism to deliver demonstration SNAP benefits, and Kentucky's demonstration team was simultaneously planning the launch of a new benefits administration system integrated across SNAP, the Temporary Assistance for Needy Families (TANF) program, and other programs. These logistical challenges introduced delays in both demonstrations' start dates. Virginia's demonstration was also delayed, in part due to delayed project staff hires. The need for close coordination of operational plans with 19 treatment schools in nine school divisions also posed a challenge. While Chickasaw Nation was the only demonstration to undertake an active consent process (other projects used passive consent), the grantee managed this process successfully and did not experience a delay in launch date as a result.

[6] The Virginia evaluation covers the first school year only (SY 2016–2017).

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III. CHARACTERISTICS OF HOUSEHOLDS AT BASELINE

This chapter describes the procedures used to assign households to treatment and control groups, the design and administration of the baseline household survey, and the characteristics of households selected into grantees' evaluation samples. The research methods highlighted in Chapter I are described in greater detail in this chapter. Additional information about the study designs, analytic methods (sampling, weights, and nonresponse bias analysis), and sample flow of participants are presented in Appendix A. Appendix B documents survey data collection procedures in more detail and includes a copy of the baseline survey instrument.

A. Random assignment and baseline household survey data collection

1. Conducting random assignment

The impact evaluation will assess the effectiveness of the four EDECH demonstration projects using RCTs. Each demonstration project has its own study design, developed and implemented based on grantees' intervention plans and the feasibility of randomizing households or clusters (schools or school districts) to treatment or control groups. School districts in Chickasaw Nation, households in Kentucky and Nevada, and schools in Virginia were randomized; see Exhibit III.1 for details on these target populations, evaluation designs, and starting sample sizes.

Exhibit III.1. Grantee evaluation designs

	Grantee			
	Chickasaw Nation	**Kentucky**	**Nevada**	**Virginia**
Target population	Households with children eligible for free meals (or attending a CEP school)[a]	SNAP households with children under age 18 and with positive net income	SNAP households with children age 5 and under and income at or below 75% FPL	Households with children in intervention (treatment) schools
Evaluation design	Cluster-level RCT	Household-level RCT (single treatment arm)	Household-level RCT (two treatment arms)	Cluster-level RCT
Number and type of clusters	40 school districts	---	---	38 schools[b]
Household starting sample size for the baseline survey[c]	4,750	4,504	6,746[d]	4,750

Note: See Exhibit I.2 for additional information on demonstration projects' interventions and locations.

[a] All preschool and older children attending a CEP school in a treatment district are eligible for the benefits.

[b] 40 schools were randomized, but school consolidations and drop-outs resulted in 38 schools in the evaluation. The Richmond site has 9 treatment and 9 control schools; the southwest site has 10 treatment and 10 control schools.

[c] See Appendix A.3 for CONSORT Flow Diagrams.

[d] An additional 500 cases were released for a total starting sample of 7,246 (see Appendix A.3.3).

CEP = Community Eligibility Provision; FPL = Federal poverty level; RCT = randomized controlled trial; SNAP = Supplemental Nutrition Assistance Program.

The nature of the intervention in each demonstration project dictated whether random assignment was at the household level (used for the SNAP-based projects and grantees) or the cluster level (used for the school-based projects and grantees). Kentucky and Nevada's intervention design called for benefits delivered to individual households, so household-level random assignment was implemented. In Chickasaw Nation and Virginia, the intervention—at least in part—is provided to groups of households with children attending specific school districts/schools rather than individual households; therefore, clusters were the unit of random assignment. Specifically, in Chickasaw Nation, school districts were randomized, and the benefits of home food deliveries (valued at approximately $40 monthly) and a $15 monthly voucher for fruit and vegetables are delivered to eligible households. To meet the eligibility criteria, households must have children eligible for free school meals who are attending one or more of the 40 school districts participating in the demonstration that signed up for the intervention in late summer 2015. In Virginia, the intervention is primarily provided at the school level, with universal provision of three meals a day at the school, provision of food backpacks on weekends and during school breaks to all students at the school, and provision of summer benefits of $60 a month for each child in a household attending a demonstration school and eligible for free or reduced-price school meals.

Using grantee-provided lists of schools, school districts, or households, the full population of eligible households was randomly assigned into treatment and control groups for each demonstration. Households assigned to receive the demonstration services or benefits are defined to be in the treatment group,[7] whereas households not receiving these services or benefits are in the control group. The number of households in the evaluation's subsample of treatment and control groups is based on the sample sizes needed to achieve desired statistical power thresholds for the analysis. In addition, random assignment was designed so that a household's likelihood of being selected to participate in the demonstration was independent of whether or not they consented to participate in the evaluation. Details on the random assignment and evaluation subsampling processes, plus the results of assessing the balance of the final treatment and control groups, are presented in Appendix A.2. Overall, the treatment and the control groups were balanced with respect to a range of household characteristics, based on an analysis of available variables from the projects' sample frames and the households that responded to the baseline survey (Appendix A.2).

2. Baseline survey contents

The purpose of the baseline survey was to describe the household characteristics of the eligible target populations before the start of each intervention. The baseline survey contains items used in other surveys, including national studies and studies of low-income populations, along with items developed specifically for EDECH. Thirty-day child and household food security was measured with USDA's standard 18-item U.S. Household Food Security Survey Module, used to assess and monitor food security in large-scale population studies such as the Current Population Survey and the National Health and Nutrition Examination Survey (Economic Research Service 2017a, 2017b). Other relevant survey questions were adapted from the Summer Electronic Benefits Transfer for Children (SEBTC) evaluation and the SNAP Food

[7] Nevada has two treatment groups.

Security Study to measure food expenditures and program participation—critical intermediate outcomes in the causal chain leading to improved food security. Feedback from eight pretest participants and FNS and Economic Research Service reviewers informed revisions to the draft questionnaire. The draft survey was also shared with some grantees who requested it. Exhibit III.2 presents a high-level overview of topics included in the baseline survey; the instrument is in Appendix B.2.

Exhibit III.2. Key topics included in the EDECH baseline household survey

Survey modules (topics)	Baseline questionnaire
Food security (last 30 days)	
Food security (among children, adults, and households)	√
Very low food security (among children, adults, and households)	√
Sociodemographic characteristics	
Ages of children (presence of teenager)	√
Employment of adult household members (last 30 days)	√
Household income (last calendar year, last month) and sources of income	√
Household earned income (last 30 days)	KY
Respondent demographics and self-reported health status	√
Nutrition assistance program participation and supports	
Participation in nutrition assistance programs (SNAP, WIC, SBP, NSLP, FDPIR) and other programs (free school suppers, school food backpacks, after school and child care programs, and summer food programs[a])	√
Length of time on SNAP	√
Amount of SNAP benefit	√
Use of food banks, soup kitchens, or community or senior programs	√
Family, friend, and community support	√
Food expenditures and food access (last 30 days)	
Food expenditures including out-of-pocket food costs	√
Food shopping, access/distance to supermarkets	CN, KY
Food behavior	
Number of family dinners per week	√
Prepare dinner/supper at home (past 7 days)	NV, VA
Shop with a grocery list	NV, VA
Nutrition education (past 12 months)	NV, VA
Children's diet quality	
School breakfast eating	√
Frequency of fast food consumption of household	√

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey.

Note: √ indicates that the topic was available in all four projects. Otherwise, the project is indicated if the topic was included for that project.

[a] Summer food programs could include summer EBT (Chickasaw Nation only), SFSP, Seamless Summer Option, or other free meals or snacks offered at places such as summer school, a community center, day camp, or park.

CACFP = Child and Adult Care Food Program; CN = Chickasaw Nation; EBT = electronic benefits transfer; FDPIR = Food Distribution Program on Indian Reservations (asked in Chickasaw Nation only); KY = Kentucky; NSLP = National School Lunch Program; NV = Nevada; SBP = School Breakfast Program; SFSP = Summer Food Service Program; SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children; VA = Virginia.

3. Administration procedures and final baseline response rates

Trained interviewers administered computer-assisted telephone interviews (CATI). Across grantees, 21,250 households were contacted to participate; 10,578 completed the interview. An additional 167 answered questions through at least the food security module but did not complete the entire interview; these cases were included in the analysis sample because they had made sufficient progress in the interview. Final baseline survey response rates, by grantee (and site), are presented in Exhibit III.3. Appendix C, Exhibit C.1 shows the response rates by treatment group. Across the four grantees, baseline response rates ranged from 57 to 66% based on standard definitions by the American Association for Public Opinion Research (AAPOR 2016). To calculate AAPOR response rate 4, the numerator contains the number of completes, which includes partial interviews. The denominator includes the number of completes, partials, eligible noncompletes (that is, cases that answered the eligibility screening questions in the survey and were found eligible but did not complete enough of the survey to be included in the analysis sample), and noncompletes with unknown eligibility status. An eligibility rate was applied to the noncompletes with unknown eligibility status in the denominator. The eligibility rate was determined using the proportional allocation method; the proportion of eligible and ineligible cases among cases with unknown eligibility status was assumed to be the same as among cases with known eligibility status (Smith 2009).[8]

Exhibit III.3. Final baseline survey response rates

Demonstration project	Total number of eligible cases	Response rate (%)
Chickasaw Nation	2,879	62.0
Kentucky	2,213	66.0
Nevada	3,122	56.9
Virginia[a]	2,618	61.5

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Response rates calculated by Mathematica Policy Research using AAPOR response rate 4 (AAPOR 2016).

Note: See Appendix A.2 See Appendix A.2 for the response rates by treatment group in Chickasaw Nation and Virginia. CONSORT Flow Diagrams in Appendix A, Exhibit A.3 for details. Non-consent cases are counted as having unknown eligibility. There are 87 eligible nonconsents, resulting in 10,745 cases for analysis.

[a] The overall response rate was 58.8% in southwest Virginia and 63.4% in Richmond.

AAPOR = American Association for Public Opinion Research.

Data collection procedures are described in detail in Appendix B.1. Three processes preceded data collection. First, grantees provided sample member's contact information. These data were from SNAP records (Nevada and Kentucky), school records (Virginia), or demonstration consent forms (Chickasaw Nation). Second, sample members' contact information was submitted to two commercial locating databases to (1) obtain additional telephone numbers for households and (2) triangulate the telephone numbers already available in the sampling frames to prioritize for dialing the numbers also found in a database. (More in-

[8] Because SNAP administrative records were used to establish eligibility for SNAP-based criteria in Nevada and Kentucky, the proportional allocation method was applied with only the non-SNAP criteria. These criteria included residence in a participating ZIP code or county and having an eligible child in the household.

depth locating, including Internet searches, was performed during the field period after exhausting attempts on available telephone numbers.) Second, telephone interviewers were trained to administer the survey (Appendix B.2).

The survey was administered in both English and Spanish for at least 16 weeks. Sample members were mailed an advance letter describing the evaluation and the purpose of the interview, and inviting them to complete the survey. Sample members were also informed that participation in the evaluation was voluntary and they could choose not to participate. Shortly after the letters were mailed, interviewers began calling households. Calls were placed at different times of the day and across all days of the week to maximize the chances of speaking with a sample member. Respondents were also able to call in to complete the survey during the field period. Participating households were mailed a $30 thank-you payment for their participation.

Response rates for each demonstration were monitored daily. Nonresponding households received mail, email (if an email address was available), and postcard reminders throughout the field period. Those who refused to participate received a refusal conversion letter. Follow-up strategies were adapted to each demonstration. For example, communications were modified to emphasize altruism in one of the areas after many sample members said they did not need the demonstration project benefits themselves, and that the benefits should go to others. Other adaptive approaches included distributing reminders to nonresponding households through schools; extending the field period; and releasing the back-up sample in Nevada after the response rate was projected to fall short of the target. Releasing additional cases enabled more interviews to be completed during the field period.

B. Household characteristics at baseline

This section reports the baseline characteristics of consenting households that responded to the baseline survey[9] conducted in the period October 2015–November 2016.

1. Household demographic characteristics and socioeconomic status

Household size was calculated for the number of household members that share food by purchasing and preparing meals together ―the SNAP definition of household size―as well as the total number of household members. Among members that share food, the mean household size ranged from 3.7 members in Kentucky to 4.5 in Nevada (Exhibit III.4). In Chickasaw Nation, Kentucky, and Virginia, only 4–5% of households had more members in the household that did not share food. In Nevada, 20% of households had more members that did not share food.[10] The mean number of children in each household ranged from 2.1 in Kentucky to 2.9 in Nevada. More than half (54%) of households in Nevada had three or more children, whereas

[9] Analytic sample sizes in exhibits based on baseline survey data vary according to the questions included in each exhibit. Specifically, for each demonstration, the sample size in a given exhibit is the sample for the highest non-missing survey data element in that exhibit. In most or all cases, this will be less than the full sample for each demonstration presented in Exhibit III.3.

[10] This finding in Nevada may suggest more than one family living together, with each responsible for their own food and meals, compared to the other projects.

29% in Kentucky had three or more children. The statistics for the number of children include children of all ages—those attending school, younger children who had not yet started school, and any other children living in the household.[11]

Exhibit III.4. Household characteristics

Characteristic	Mean or percentage			
	Chickasaw Nation	Kentucky	Nevada	Virginia
Household (HH) size				
Mean number of HH members who share food	4.4	3.7	4.5	4.1
HHs that have more members than just those who share food (%)	4.0	5.3	20.2	4.5
Mean number of HH members	5.4	4.7	5.8	5.1
Number of children				
Percentage of households with:				
1 child	19.6	34.9	18.4	27.1
2 children	35.1	36.6	27.9	37.0
3 or more children	45.3	28.5	53.7	35.9
Mean number of children in household	2.5	2.1	2.9	2.3
Mean number of children in local school system[a]	2.2	n.a.	n.a.	1.9
Any household adult employed in last 30 days (%)	75.6	39.4	57.2	69.2
Last month household income[b]				
Median ($)	1,699	999	994	1,582
Mean ($)	1,970	1,097	1,013	2,265
Last month earned income among those with an employed adult[c]				
Median ($)	n.a.	1,097	n.a.	n.a.
Sources of income (%)				
Reported receiving TANF	5.2	13.6	18.2	10.5
Reported receiving Social Security	22.2	31.2	11.1	21.6
Reported receiving SSI or supplemental security income	15.3	43.6	12.4	17.6
Reported receiving veteran's benefits	2.7	0.7	1.0	2.0
Reported receiving unemployment insurance or worker's compensation benefits	2.7	1.9	2.6	2.4
Reported receiving child support payments	23.1	16.0	12.9	16.9
Reported receiving financial support from family and friends	14.5	15.4	22.7	14.6
Reported receiving any other income besides earnings	1.0	0.3	1.1	0.5
Reported none of the above	42.3	24.2	44.3	43.7

[11] Children were defined as 18 years or younger or still in school (if older than age 18) and living with an adult in a household.

Exhibit III.4. (*continued*)

Characteristic	Mean or percentage			
	Chickasaw Nation	Kentucky	Nevada	Virginia
Percentage of households				
No income	3.1	1.8	10.1	5.4
At or below poverty line (0-100% of poverty)	64.0	94.4	94.2	60.3
At or below 130% of poverty line	80.0	98.8	97.9	70.6
At or below 185% of poverty line	92.3	99.7	99.4	82.0
Above 185% of poverty line	7.7	0.3	0.6	18.0
Sample size	**2,859**	**2,202**	**3,088**	**2,596**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

[a] Questions about whether each school-age child in the household attended school were asked in Chickasaw Nation and Virginia to confirm eligibility. They were not asked in the SNAP-based projects because the characteristic of interest is the number of children in the household.

[b] Includes all earnings, Social Security, pensions, Veteran's benefits, unemployment insurance, worker' compensation benefits, child support, payments from roomers and borders, TANF, and SSI for all household members.

[c] A separate question on earned income was only asked in Kentucky because it was related to the eligibility criteria for the demonstration. Earned income includes household total countable earnings before taxes from wages and salaries from a job or self-employment, and income from rental property.

HH = household; n.a. = not applicable; SNAP = Supplemental Nutrition Assistance Program; SSI= Supplemental Security Income; TANF = Temporary Assistance to Needy Families; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Eligibility rules for each EDECH demonstration site specifically limited participation in the evaluation by household income level (for example, qualifying for SNAP or free school meals) or school characteristics (for example, Community Eligibility Provision [CEP] school, school improvement plan). The expectation was that the survey sample would be relatively disadvantaged, particularly in the sites with stricter income eligibility criteria. Thus, median household income in Kentucky and Nevada, both requiring participants to be SNAP eligible, was the lowest, at approximately $1,000 in the last 30 days. In Chickasaw Nation, where households must qualify for free school meals or attend a CEP school, median income was $1,699. Virginia, where eligibility was determined only by school characteristics, median and mean income had the greatest range, from $1,582 to $2,261, respectively. The employment rate (defined as employed during the last 30 days) varied similarly to median household income; the highest rate was 76%, in Chickasaw Nation, and the lowest was 39%, in Kentucky. Among households with an employed adult in Kentucky, the median earned income ($1,097) was slightly higher than median overall (total) income ($999).

About 4 of 10 households in Chickasaw Nation, Nevada, and Virginia and 1 of 4 in Kentucky reported no other source of household income or benefits. The percentage of respondents who reported receiving TANF varied across the demonstrations: 5% in Chickasaw Nation, 14% in Kentucky, 18% in Nevada, and 11% in Virginia. Kentucky had the highest percentage of respondents reporting Supplemental Security Income receipt, at 44%, substantially higher than any other project. Less than 3% of households in any site reported receiving veterans' benefits or unemployment compensation.

Household poverty calculations were made using reported household income for the last 30 days. Approximately 94% of all households in Kentucky and Nevada lived at or below the poverty line. It would be expected for these demonstration households to be at or below 130% of poverty because they qualify for SNAP,[12] but it is notable that most households fall far below that threshold. In Chickasaw Nation and Virginia, 92 and 82%, respectively, live at or below 185% of the poverty line—the cut-off for reduced-price eligibility in the NSLP. More than half of those respondents reported living at or below the poverty line (64 and 60%), signifying that a large portion of the demonstration sample had even lower incomes than the demonstration eligibility cut-offs imply and that the demonstration projects reached the target populations.

Most survey respondents for each project were female (87–94%) and more than one-third were between ages 30 to 39 (Exhibit III.5). Chickasaw Nation respondents were primarily non-Hispanic white or non-Hispanic of another race (57 and 27%); a small portion were Hispanic of any race (12%). Respondents in Kentucky were predominately non-Hispanic white (94%). The majority of Nevada respondents were Hispanic of any race (57%), whereas another 25% were non-Hispanic black and 12% were non-Hispanic white. In Virginia, respondents were split primarily between non-Hispanic black (46%) and non-Hispanic white (42%).[13]

In educational attainment, roughly two-thirds of respondents in Chickasaw Nation, Kentucky, and Virginia were high school graduates or had some college education. In Nevada, nearly half (46%) of respondents had not graduated from high school. Chickasaw Nation and Virginia had the highest rates of four-year college graduates, at 9 and 10%, respectively, whereas 2% of respondents in Kentucky and Nevada had a four-year college degree.

In Chickasaw Nation and Kentucky, most respondents were married or divorced (45 and 27%; 40 and 36%). In Nevada, 39% of respondents had never married, 23% were living with a partner, and 22% were married. Respondents in Virginia were predominately married or had never married (39% and 34%). Roughly one-third of respondents identified their health as good in each project. Kentucky respondents reported having the worst health status, with 5% reporting "Excellent" and 17% reporting "Poor."

Exhibit III.5 also shows the distribution of children in households. In the school-based projects (Chickasaw Nation and Virginia), a large proportion of households had a child age 5 to 11 (79 and 80%, respectively), and about half of the households had a child age 12 to 17 (53 and 49%, respectively). Most Kentucky households also had school-age children, and 41% had a child under 5. As an eligibility criterion, all Nevada households had a child up to age 5. Additionally, 61% had a child age 5 to 11 and 28% had a child age 12 to 17.

[12] A small percentage (1–2%) of households in Kentucky and Nevada were slightly above the 130% FPL cut-off; reported income is not always accurate, and it was confirmed that all households were receiving SNAP at the time of sampling.

[13] The southwest site in Virginia is predominantly non-Hispanic white; the Richmond site is predominantly non-Hispanic black.

Exhibit III.5. Demographics of respondent and children in household

Characteristic	Percentage			
	Chickasaw Nation	Kentucky	Nevada	Virginia
Gender				
Male	9.9	11.9	6.0	13.5
Female	90.1	88.1	94.0	86.5
Age of respondent				
Under 20 years	0.3	0.4	1.2	0.2
20 to 29 years	19.4	23.5	44.8	19.0
30 to 39 years	44.7	36.0	40.8	42.3
40 to 49 years	22.5	21.5	10.5	24.7
50 to 59 years	8.6	12.8	1.9	9.4
60 years or older	4.5	5.8	0.8	4.4
Race/Ethnicity				
Hispanic, all races	11.7	1.3	56.7	7.8
Black, non-Hispanic	4.4	1.3	24.9	46.1
White, non-Hispanic	56.6	93.6	11.5	41.9
Other, non-Hispanic	27.3	3.9	6.8	4.2
Level of education				
Less than high school	19.4	30.6	45.7	19.0
High school graduate (or GED)	37.8	40.2	31.1	34.8
Some college (including 2 year degree)	34.0	27.0	20.9	35.9
Four year college degree or higher	8.8	2.3	2.3	10.3
Marital status of respondent				
Married	44.5	39.8	21.5	39.1
Living with partner	10.7	5.4	23.3	7.7
Separated or divorced	27.4	36.2	15.5	17.6
Widowed	3.7	4.4	1.1	1.9
Never married	13.7	14.3	38.6	33.7
Reported health status				
Excellent	10.5	4.8	11.7	13.8
Very good	22.7	17.2	16.3	25.0
Good	35.9	32.0	41.4	33.3
Fair	22.8	29.5	23.2	20.8
Poor	8.0	16.5	7.4	7.0
Age of children				
Less than 5 years	32.5	40.5	100.0	30.2
5 to 11 years	78.7	60.2	60.5	79.6
12 to 17 years	53.2	44.6	28.4	48.8
18 years (or older if still in high school)	6.4	3.9	3.0	5.7
Sample size	**2,859**	**2,202**	**3,088**	**2,596**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

GED = general educational development.

2. Participation in nutrition assistance programs

Exhibit III.6 shows participation in nutrition assistance programs—household participation in programs designed for the household, and then children's participation in child nutrition programs. SNAP participation was universal in Kentucky and Nevada because it was a criterion for random assignment. Just under half of respondents reported currently receiving SNAP benefits in Chickasaw Nation (45%) and Virginia (47%), and 7% of respondents in Chickasaw Nation reported receiving the Food Distribution Program on Indian Reservations (FDPIR). In Nevada, 60% of respondents reported receiving WIC, although all would be income-eligible (that is, all households are SNAP eligible with one or more children up to 5). Increasing WIC enrollment was a goal of the Nevada demonstration. WIC participation in the other demonstration projects ranged between 13% (Virginia) and 30% (Kentucky). The percentage of respondents reporting using emergency assistance from a food pantry or kitchen ranged from 11% in Virginia to 19% in Kentucky.

Chickasaw Nation and Virginia had the highest rates of reported participation in child nutrition programs. This finding would be expected, as both demonstrations require the presence of school-age children in the household for eligibility, and child nutrition programs are primarily for school-age children. Nearly all respondents in Chickasaw Nation and Virginia reported having a child participate in the National School Lunch or School Breakfast programs (95 and 85%; 84 and 74%). A small portion of respondents reported their children receiving suppers at school (participation at the four projects ranged between 6 and 14%), and almost one-fifth (17%) of respondents in Virginia had a child participate in a food backpack program through school at baseline;[14] about half (54%) of Chickasaw Nation respondents received Summer EBT. Around one-fourth of Kentucky and Nevada households reported receiving no child nutrition benefits (21 and 28%, respectively).[15]

Exhibit III.6. Reported participation in household and child nutrition programs

	Percentage			
	Chickasaw Nation	Kentucky	Nevada	Virginia
Household nutrition benefit program[a]				
Reported currently receiving SNAP[b]	45.1	100.0	100.0	47.2
Reported receiving FDPIR	6.6	n.a.	n.a.	n.a.
Reported receiving WIC	19.6	27.8	60.3	13.2
Reported receiving food from pantry/emergency kitchen	15.9	19.4	13.3	11.2
Reported none of the above nutrition benefits	36.5	.	.	45.6
Children's nutrition program[a]				
Reported receiving NSLP	95.3	74.4	65.3	83.6

[14] All Virginia treatment schools offered a backpack program in the demonstration.

[15] Because the timing of the survey administration was such that the 30-day reference period seldom crossed the summer when the SFSP may have been available, this calculation excludes SFSP and other nutrition programs not asked about in the survey and listed in Exhibit III.6.

Exhibit III.6. (*continued*)

	Percentage			
	Chickasaw Nation	Kentucky	Nevada	Virginia
Reported receiving SBP	84.5	67.7	59.0	73.8
Reported receiving supper at school	6.2	8.9	8.1	13.6
Reported receiving backpack program	18.0	12.7	9.7	16.9
Reported receiving food at after school program where snacks are received	15.5	8.6	9.3	25.2
Reported receiving food at another center, e.g., Head Start or daycare	10.6	7.8	10.4	11.1
Reported receiving Summer EBT	53.5	n.a.	n.a.	n.a.
Reported none of the child nutrition benefits listed above[c]	1.6	21.4	28.2	10.7
Sample size	**2,859**	**2,202**	**3,088**	**2,596**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: Program participation questions generally reflected current participation at the time of the interview, defined as 'during the last 30 days'. Questions on school backpacks were asked about the last SY (2014–2015) and, for SEBTC, the last summer (2015).

[a] Calculated for all households as a descriptive variable and not constrained to only those households that are eligible for a specific program listed.

[b] Based on SNAP administrative records.

[c] Calculation excludes free meals or snacks at summer food programs due to the timing of data collection; the question was only asked in Kentucky for interviews where the 30-day reference period included summer.

EBT = electronic benefits transfer; FDPIR = Food Distribution Program on Indian Reservations; HH = household; NSLP = National School Lunch Program; SBP = School Breakfast Program; SEBTC = Summer Electronic Benefits Transfer for Children; SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

3. Food security at baseline

Reducing food insecurity among children—FI-C—is the key objective of each EDECH demonstration. Exhibit III.7 shows the food security status of households in the evaluation sample at baseline. Before implementation, more than 50% of households experienced food insecurity among adults, children, or both in Chickasaw Nation, Kentucky, and Nevada (53, 59, and 56%, respectively). In Virginia, 35% of households were food insecure. Child food insecurity rates were also similar across Chickasaw Nation, Kentucky, and Nevada, ranging from 35–37%. Food insecurity among children at baseline was lowest in Virginia, at 22%. Very low food insecurity among children ranged from 3 to 6% across projects and was highest in Nevada (6%).

Food security at baseline was also analyzed by treatment (T) and control (C) group for each demonstration project (see Appendix C Exhibits C.2–C.5). There were no significant T-C differences in food security findings except for household and adult food security in Chickasaw Nation (Appendix C, Exhibit C.2). Chickasaw Nation adults in the treatment group were more likely to report being insecure (49%) compared to adults in the control group (45%). There were no significant differences in FI-C, the evaluation's primary outcome, at baseline by T/C group in Chickasaw Nation or any other project, but it will be important to control for this characteristic in the baseline analysis.

Exhibit III.7. Food security at baseline

	Chickasaw Nation	Kentucky	Nevada	Virginia
Households				
Secure	47.4	41.1	44.3	65.3
Insecure	52.6	58.9	55.7	34.7
VLFS	25.0	33.3	23.2	15.6
Adults				
Secure	52.7	43.7	48.1	68.3
Insecure	47.3	56.3	51.9	31.7
VLFS	24.8	32.9	22.2	15.1
Children				
Secure	63.2	63.2	65.4	78.2
Insecure	36.8	36.8	34.6	21.8
VLFS	2.7	3.9	5.5	2.5
Sample size	**2,855**	**2,194**	**3,082**	**2,591**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: Food security was measured using the 30-day survey module. VLFS is a subcategory within the food insecure category.

VLFS = Very low food security

4. Food expenditures

Respondents for each project were asked about their household spending on food at grocery stores and restaurants in the last 30 days. Households in Virginia and Chickasaw Nation reported higher food expenditures in the last month than households in Kentucky and Nevada (Exhibit III.8). Overall, respondents in Virginia reported the highest expenditures, at $378 per household,[16] slightly higher than in Chickasaw Nation ($362 per household). Virginia respondents also reported the largest per person expenditures, $98, compared to $87 in the Chickasaw Nation. Respondents in Nevada reported the lowest total expenditures, $174 per household and $42 per person. Median per person monthly expenditures ranged from $30 in Nevada to $80 in Virginia, all far lower than the comparable national statistic for households with children, $163.[17]

[16] Reported averages are means unless otherwise specified.

[17] This statistic is derived from the 2015 Current Population Survey, which reported median weekly expenses for households containing children under age 18 (all incomes) (Coleman-Jensen et al. 2016). The reported weekly expenses were $37.60. The comparable monthly statistic is $163. [37.60 x (365 days in the year ÷ 7 days in a week ÷ 12 months in the year) = median monthly expenditures of $163.38]

Exhibit III.8. Reported monthly food expenditures

	Chickasaw Nation	Kentucky	Nevada	Virginia
Total out of pocket food expenditures[a] ($)				
Household mean	362	198	174	378
Household median	298	169	130	308
Per person mean	87	58	42	98
Per person median	72	47	30	80
Food expenditures at supermarkets, grocery stores, and other types of stores[b] ($)				
Household mean	291	156	133	288
Household median	247	130	99	245
Per person mean	70	45	32	74
Per person median	59	36	21	62
Expenditures at restaurants[c] ($)				
Household mean	85	50	56	100
Household median	56	34	39	59
Per person mean	21	15	14	26
Per person median	15	10	9	16
Mean number of times family ate at a fast food or other type of restaurant in the last month	3.6	3.1	2.5	4.7
Sample size	**2,848**	**2,190**	**3,059**	**2,573**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015-2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: Questions were asked about the last 30 days.

[a] Sum total of reported out-of-pocket food expenditures at stores and restaurants in the last 30 days. Excludes purchases made with SNAP and WIC.

[b] Out of pocket expenditures on food at supermarkets, grocery stores, and other stores. Excludes purchases made with SNAP and WIC.

[c] Includes carryout, drive through, and all types of restaurants.

SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Food expenditures were divided between groceries and restaurant meals, with groceries representing the largest proportion for respondents in all projects. Virginia and Chickasaw Nation had the highest expenditures in both categories; Nevada had the lowest. Respondents in Virginia and Chickasaw Nation reported similar expenditures on groceries, but Virginia households reported higher restaurant expenditures ($100 per household and $26 per person monthly), which resulted in their higher overall food expenditures. Nevada respondents reported the lowest grocery expenditures both overall and per person. Restaurant expenditures were about the same in Nevada and Kentucky and far lower than in the other two projects.

5. Shopping behaviors and family dinners

A series of food shopping questions was asked in all four projects, but the questions varied depending on each project's target population and intervention (Exhibits III.9–III.12). The Chickasaw Nation and Kentucky demonstrations both seek to address barriers to food access, so respondents were asked about where and how often they shop for food. Respondents in both projects reported shopping primarily at full-service grocery stores or discount stores (98 and 100%). Just under 50% of households (47 and 49%) shopped fewer than five times a month (that is, once weekly or less often), with a mean distance to the grocery store of more than 10 miles (10.4 and 12.1) (Exhibits III.9 and III.10).

Respondents in all demonstration projects were also asked about the frequency of their family dinners. Most respondents in each project reported having dinner as a family a majority of nights during a week. A large portion of respondents reported eating together as a family *every* night, ranging from 42% in Virginia to 65% in Nevada (Exhibits III.9–III.12).

In demonstrations with formal nutrition education components, Nevada and Virginia respondents were asked about their participation in nutrition education events in the past 12 months: less than one-third of respondents had attended an event at either project (30 and 13%). Among those who went to at least one event, they attended an average 3.6 and 2.8 events, respectively. Slightly under one-third of respondents in Nevada and Virginia reported always shopping with a grocery list (31 and 30%) (Exhibits III.11 and III.12).

Chickasaw Nation respondents were asked a series of questions about their school-age children and food shopping behaviors (Exhibit III.9). Chickasaw Nation respondents had an average of 2.2 children enrolled in a local school. Of those children, 96% were reported to be receiving free school lunches. Regarding grocery habits, respondents had shopped an average of 7.2 times in the last 30 days, though just under half (47%) reported shopping once a week or less in the past month. Nearly two-thirds of respondents shopped at a discount store (61%), and more than one-third at a full-service grocery store (37%) to purchase their groceries. The mean distance to their primary grocery shopping destination was 10.4 miles; one-third (34%) of Chickasaw Nation respondents reported driving farther than 10 miles to do food shopping.

Exhibit III.9. Characteristics of school children and food shopping behaviors of demonstration households in Chickasaw Nation

	Mean or percentage
Mean number of children per household K-12 in local school system	2.2
Percentage of households that reported receiving free school lunches in last 30 days	95.6
Percentage that reported receiving summer EBT in 2015[a]	53.5
Number of times someone shopped for food items in past 30 days	7.2
Percentage that shopped	
Less than 5 times (0-4)	47.0
5-9 times	28.0
10–19 times	17.8
20-30 times	7.2

	Mean or percentage
Type of store shopped at for groceries (%)	
Supermarkets/grocery stores	37.1
Discount stores	60.5
Dollar stores	1.1
Warehouse clubs	0.6
Farmer's markets	0.3
Other[b]	0.5
Mean distance from home to grocery shopping destination (one way miles)	10.4
Distribution of home to grocery shopping distance (%)	
0-2 miles	23.1
3-5 miles	20.9
6-10 miles	22.2
11-19 miles	16.1
20-29 miles	10.8
30 or more miles	6.9
Distribution of number of nights a week family typically sits down together to have dinner as a family (%)	
Every night	49.3
5 or 6 nights	24.4
3 or 4 nights	19.4
1 or 2 nights	4.9
Never	2.0
Sample size	**2,859**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

[a] Only asked for the treatment group.

[b] Includes convenience stores, ethnic food stores, and other retailers, such as surplus stores, local produce stores, and FDPIR and other USDA commodity food distribution facilities.

EBT = electronic benefits transfer, FDPIR = Food Distribution Program on Indian Reservations.

Kentucky respondents were asked multiple questions about their shopping experiences (Exhibit III.10). On average, respondents had shopped 6.8 times in the last 30 days, though just under half (49%) reported shopping less than 5 times. Four out of five respondents (80%) shopped at a full-service grocery store to purchase their groceries, whereas one in five (20%) reported frequenting a discount store. The majority of respondents selected their primary grocery destination because of its low prices (60%), and 19% shopped at the store because it was close to home. The mean distance to their primary grocery shopping destination was 12.1 miles; 21% of households reported driving 20 or more miles to reach their grocery store in Kentucky. Almost universally, respondents used a car as their transportation to get to the grocery store (99%). About two-thirds (69%) of respondents drove their own car, 22% had someone else drive them, and 8% drove someone else's car as their usual means of transport to the store.

Exhibit III.10. Food shopping and nutrition behaviors of demonstration households in Kentucky

	Mean or percentage
Mean number of times shopped for food in past 30 days	6.8
Percentage that shopped	
Less than 5 times (or 0-4)	48.5
5-9 times	29.1
10-19 times	16.7
20-30 times	5.7
Average distance to grocery shopping destination (one way miles)[a]	12.1
0-2 miles	14.1
3-5 miles	16.2
6-10 miles	26.2
11-19 miles	22.4
20-29 miles	13.8
30 or more miles	7.4
Type of store shopped at for groceries? (%)	
Supermarkets/grocery stores	80.0
Discount stores	19.5
Dollar stores	0.1
Warehouse clubs	0.1
Farmer's markets	0.1
Other[b]	0.2
Main reason for shopping at grocery store (%)	
Low prices	59.9
Close to home/convenient or easy to get to	18.8
Sales	4.7
Quality of food	4.8
Variety of foods (general)	5.6
Meat department	1.6
Other[c]	4.6
Average travel time to grocery store (one way minutes)	18.2
Usual transportation used to get to grocery store	
Car	99.2
Drive own car	69.4
Drive someone else's car	8.1
Someone else drives me	21.7
Taxi or paid driver	0.9
Walk/Bicycle	0.5
Public Transport	0.2
Other[d]	0.1
Distribution of the number of nights a week family typically sits down together to have dinner as a family (%)	
Every night	55.4
5 or 6 nights	19.5
3 or 4 nights	17.8
1 or 2 nights	5.7
Never	1.6
Sample size	**2,202**

Source: Evaluation of Demonstrations to End Childhood Hunger, 2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

[a] Reported miles ranged from 0 to 120 miles from home.

[b] Includes convenience store, ethnic food store, and other retailers such as surplus store, local produce store, and FDPIR and other USDA commodity food distribution facilities.

[c] Includes other reasons, such as the 'respondent or family works there' and 'store has a cart to ride since they have health problems'.

[d] Includes other reasons, such as 'daughter does shopping', 'children's grandpa goes to the store for them', and 'uses a transportation service for medical reasons'.

Nevada respondents were asked about their food shopping and nutrition habits (Exhibit III.11). Nearly one-third (31%) of respondents reported always shopping with a grocery list, whereas 13% never did. Respondents prepared dinner at home a mean 5.9 days in the last week. Regarding nutrition education, 30% of respondents had attended a nutrition education event[18] in the past 12 months. Among those households that had participated in such an event, they attended an average of 2.8 events.

Exhibit III.11. Food shopping and nutrition behaviors of demonstration households in Nevada

	Mean or percentage
Percentage of respondents that reported shopping with a grocery list	
Always	31.4
Most of the time	23.7
Sometimes	20.7
Rarely	11.4
Never	12.9
Distribution of the number of nights a week family typically sits down together to have dinner as a family (%)	
Every night	65.2
5 or 6 nights	15.3
3 or 4 nights	13.2
1 or 2 nights	4.5
Never	1.9
Number of times dinner prepared at home in last 7 days	
Mean	5.9
Percentage of respondents that reported attending a nutrition education class, lecture, event, or demonstration in past 12 months	30.1
Mean number of nutrition education classes, lectures, events, demonstrations attended in past 12 months among participants	2.8
Sample size	**3,085**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Virginia respondents were asked similar questions to Nevada respondents, as well as some additional questions about child nutrition programs (Exhibit III.12). Nearly one-third (30%) of respondents reported always shopping with a grocery list, whereas 12% never did. Respondents prepared dinner at home a mean 5.4 days in the last week. Approximately 13% of respondents reported attending a nutrition education event in the past 12 months. These households attended an average of 3.6 events. Less than one-fourth of households reported receiving a school food backpack (17%), but among households that did receive one, about two-thirds (64%) received it every week.

[18] Nutrition education events include attending a class, lecture, event, or demonstration.

Exhibit III.12. Participation in child nutrition school programs and nutrition behaviors of demonstration households in Virginia

	Mean or percentage
Mean number of children per household K-12 in local school system	1.9
Mean number of children reported by households as receiving free or reduced-price school lunches in last 30 days	1.8
Percentage of respondents who reported receiving school food backpack program	16.9
Distribution of the number of times per month students used school food backpack program, among participants (%)	
Less than once a month	11.2
Once per month	10.1
2 to 3 times per month	15.1
Every week	63.6
Distribution of the number of nights a week family typically sits down together to have dinner as a family (%)	
Every night	42.4
5 or 6 nights	23.6
3 or 4 nights	25.4
1 or 2 nights	6.2
Never	2.4
Mean number of times dinner prepared at home in last 7 days	5.4
Percentage of respondents who reported shopping with a grocery list	
Always	29.6
Most of the time	27.3
Sometimes	21.5
Rarely	10.1
Never	11.5
Percentage of respondents that reported attending a nutrition education class, lecture, event, or demonstration in past 12 months	13.2
Mean number of nutrition education classes, lectures, events, demonstrations attended in past 12 months among participants	3.6
Sample size	**2,596**

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

[a] Includes nutrition classes, lectures, events, and demonstrations.

IV. SUMMARY OF STUDY ACTIVITIES AND DESCRIPTIVE FINDINGS

This chapter summarizes the EDECH study's activities in the first two years of the study—the evaluation's start-up and design work; the data collection before full project implementation (that is, household baseline surveys and site visits); and analysis and reporting of the findings for the projects' planning and early implementation period. The chapter also describes next steps in the evaluation.

A. Evaluation start-up and design

Following FNS's cooperative agreement awards to the EDECH demonstration projects in February 2015 and public announcement in March 2015, Mathematica and FNS held an orientation meeting for the grantees in March 2015. Three States (Kentucky, Nevada, and Virginia) and two Indian Tribal Organizations (ITOs) (Chickasaw Nation and Navajo Nation) were selected to sign cooperative agreements to operate demonstration projects. Both ITOs are conducting projects in rural areas where the prevalence of diabetes is at least 15%.[19] At the orientation meeting, grantees presented their project plans, Mathematica provided an overview of the evaluation, and grantees met with the evaluation team and the FNS project leader in break-out sessions to discuss project-specific evaluation needs. The meeting familiarized grantees with the evaluation of the projects and strengthened communication and working relationships. The roles and responsibilities of grantees and their partners, FNS, and the evaluation team were discussed, including the grantees' role in providing administrative, management information system (MIS), and cost data for the evaluation; FNS's oversight and support as the grant-making agency; and Mathematica's role in providing technical assistance to the grantees for the evaluation.

During the projects' planning and early implementation period, Mathematica prepared an MOU and data use agreement for each grantee and, if applicable, their partners. Mathematica also developed final survey instruments, interview protocols, and data collection forms for the impact, process, and cost study components. The New England Institutional Review Board (IRB) approved the study for the Kentucky, Nevada, and Virginia projects in June 2015, and Chickasaw Nation obtained approval from its IRB in July 2015. The data collection plan was approved by the Office of Management and Budget (OMB) in August 2015 (USDA 2015), and the study plan was finalized in November 2015.

School districts in Chickasaw Nation and schools in Virginia were randomly assigned to treatment or control groups before the baseline survey was conducted for those two projects. Eligible households in Kentucky and Nevada were randomly assigned to treatment or control groups following their completing the baseline survey.

B. Planning and early implementation project activities

Before the recruitment and enrollment of demonstration households, each project undertook activities to define the eligibility criteria and target population for its demonstration; work with

[19] The Navajo Nation project is continuing through 2017 but will not be evaluated.

local school districts, schools, or State agencies (as appropriate); and develop outreach materials. Mathematica assisted in this activity by developing an EDECH brochure that described the evaluation study and could be used in any of the projects, and preparing written materials such as advance letters and frequently asked questions that grantees could use. Mathematica also provided IRB materials and assisted in obtaining tribal and local IRB approvals by providing written materials and reviewing applications and any other items developed by grantees, if requested. Explanations about the random assignment process formed an important part of this information.

During 2015, the grantees hired a project manager or project staff and notified households about the demonstration and evaluation. Kentucky and Nevada began preparing administrative systems to calculate and distribute the enhanced SNAP benefit amounts to eligible households. Nevada also set up space and resources for case management.

Grantees obtained consent from eligible households for the demonstration and the evaluation. Chickasaw Nation used an active consent process, whereas the other three projects used passive consent. Chickasaw Nation had to recruit and establish agreements with participating school districts to distribute consent forms and, with its partner, decide on the content of the food boxes, set up the food ordering website and a phone hotline for individuals who had problems ordering online, and develop a system to track the services provided.[20] Virginia recruited and informed school districts and schools in two sites (southwest Virginia and Richmond) about the demonstration and whether they were randomly selected to receive benefits. It also raised awareness about the demonstration in school communities and worked with food banks on packing and distributing food packs to students in local schools.

During the grantees' planning and early implementation period, Mathematica hosted regular conference calls to provide evaluation technical assistance and document implementation and grantee decisions that could affect the evaluation design, data collection, and/or data interpretation. Two-person teams served as liaisons to each project, provided ongoing evaluation technical assistance, and conducted two-day site visits to each project during the planning and early implementation period for the process study. During this period, Mathematica also worked closely with grantees to develop an MIS to track services.[21]

The four demonstration projects had the common goal of improving access to nutrition for children but they also displayed diversity in key features of their design, planning, and target populations. Specifically, demonstrations varied in the age of children targeted and the urbanicity of the demonstration area, the demonstration length and benefits, and the process used to recruit and engage demonstration participants.

The projects were generally implemented as planned by grantees, but the early demonstration implementation processes and challenges that the liaison teams observed differed

[20] CNNS used the same retailers that they already worked with for the CNNS WIC program. They provided retailers with information and training about the new vouchers that households would be shopping with.

[21] Kentucky did not need an MIS, since the SNAP administrative data contain the information on SNAP benefits provided by the demonstration project.

across demonstrations. For example, Nevada and Kentucky both contracted with new EBT vendors at the same time they were planning for and implementing the mechanism to deliver demonstration SNAP benefits; these logistical challenges introduced delays in both demonstrations' start dates. Although Chickasaw Nation was the only demonstration to undertake an active consent process, the grantee managed this process successfully and did not experience a delay in launch date as a result. In Virginia, the need for close coordination of operational plans with 40 individual schools in nine school divisions posed a challenge. For the food packs, two local food banks played an instrumental role in working with schools to address these challenges.

C. Baseline analysis

This interim report describes the household characteristics and baseline food security of participating households with children in the four demonstration projects. Baseline household survey data were collected on a staggered schedule, depending on the projects' timelines, from October 2015 through November 2016 (see Appendix B Exhibit B.1 for specifics). In general, a high proportion of households in each project reported low household incomes. In Kentucky and Nevada, the two SNAP-based projects, 9 out of 10 households (94%) were living in poverty; in Chickasaw Nation and Virginia, 6 out of 10 households were doing so. Economic conditions in rural Kentucky, which encompasses part of the Kentucky Highlands Promise Zone,[22] were difficult, with a reported 39% employment rate among demonstration households, compared with 57% in Nevada, 69% in Virginia, and 76% in Chickasaw Nation. Median monthly income ranged from about $1,000 in Kentucky and Nevada to $1,582 in Virginia and $1,699 in Chickasaw Nation.

Chickasaw Nation respondents were primarily non-Hispanic white or non-Hispanic of another race (57 and 27%); a small portion were Hispanic of any race (12%). Respondents in Kentucky were predominately non-Hispanic white (94%). The majority of Nevada respondents were Hispanic of any race (57%), whereas another 25% were non-Hispanic black and 12% were non-Hispanic white. In Virginia, respondents were split primarily between non-Hispanic black (46%) and non-Hispanic white (42%).[23]

The rate of FI-C, the primary outcome of the impact evaluation, ranged from 22% in Virginia to 35–37% in the other three projects at baseline. The FI-C rates were higher than the national rate of 21% (among households with children in poverty) in Chickasaw Nation, Kentucky, and Nevada (ranging from 35–37%), and similar to the national rate in Virginia (2015 Current Population Survey; Coleman-Jensen et al. 2016). The rate of very low food security among children (VLFS-C) ranged from 3% to 6% across projects, compared with 2% nationally among households with children in poverty. Finally, the household food insecurity rates (FI-HH) in Chickasaw Nation, Kentucky, and Nevada ranged from 53–59%, and were higher than the national rate of 43% among households with children in poverty. The FI-HH rate in Virginia was

[22] The Kentucky Highlands Promise Zone is a federal designation that provides the local community with federal support to implement its economic and community development goals [http://www.kypromisezone.com/.]

[23] The southwest site in Virginia is predominantly non-Hispanic white; the Richmond site is predominantly non-Hispanic black.

lower (35%), a finding consistent with greater diversity in income levels in the Virginia target population or schools.

D. Annual reports to Congress

In addition to authorizing funds for the demonstration projects and the independent evaluation, HHFKA directed the Secretary of Agriculture to submit a report by the end of December each year to the House of Representatives Committee on Agriculture and Committee on Education and the Workforce, in addition to the Senate Committee on Agriculture, Nutrition, and Forestry. To date, three annual reports have been submitted that describe the status of each demonstration project and the evaluation status and results for the previous fiscal year (USDA 2015, 2016, 2017).

E. Next steps in the evaluation

During each project's implementation and operations period, Mathematica will continue to work with State and local project staff on tracking and providing data on demonstration project services and costs to the evaluation team, providing administrative data on federal nutrition assistance programs, and updating household contact information for the follow-up surveys. Mathematica will also conduct site visits to grantees and partners, conduct two focus groups per project, and collect qualitative in-depth interviews with participants in the implementation and operations period of each of the four projects.

The study schedule calls for a follow-up survey approximately 12 months after the baseline survey to estimate each demonstration project's impact on food security and other outcomes based on household surveys. Follow-up surveys were to be administered to households that receive project benefits and a control group of households not selected for benefits. The follow-up survey was conducted in Chickasaw Nation, Nevada, and Virginia in January through June 2017. Kentucky's follow-up survey will be conducted in August–November 2017. At that time, a second follow-up survey will be conducted in Chickasaw Nation because it is implementing a 24-month intervention.

Each demonstration project is being evaluated using a random assignment study design—the most rigorous design methodology. Mathematica will summarize the findings from the impact, implementation, and cost studies in individual project evaluation reports. The main outcome will be food insecurity among children over the last 30 days. The evaluation of Chickasaw Nation's project also focuses on diet quality because this project is designed to improve household access to healthy food. The project-specific (and integrated and summary) evaluation reports will answer research objectives 2–7 on the implementation, impact, and costs of the demonstration projects, and update descriptive information, if needed, for research objective 1 (Appendix A.1).

Analysis of qualitative data (focus groups and in-depth interviews with participants), process data (site visits, MIS data), and quantitative administrative and cost data will be conducted and the findings will be incorporated into the evaluation reports. In addition, annual reports to Congress will be prepared for 2017 and 2018, and briefings on the evaluation results will be conducted for FNS as they become available.

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APPENDIX A

STUDY DESIGN: RESEARCH QUESTIONS, RANDOM ASSIGNMENT, SAMPLING, WEIGHTING, AND ANALYTIC METHODS

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CONTENTS

EXHIBITS

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APPENDIX A.1. OVERVIEW OF THE EDECH EVALUATION DESIGN

Study component	Sample	Data sources	Main outcomes
Objective 1. To describe each demonstration project in detail			
Implementation	State/Tribal agency directors, project staff, and State and local partner organizations	Document review; in-person interviews	Project vision; project components; planning process
Objective 2. To describe the processes involved in the implementation and operation of each demonstration project			
Implementation	State/Tribal agency directors, project staff, and State and local partner organizations; parents/guardians	In-person interviews; parent/guardian focus groups; parent/guardian interviews; administrative data	Project components; implementation processes; project challenges and successes; staff and participants' perceptions and experiences
Objective 3. To determine the impact of each demonstration project on the prevalence of food insecurity			
Impact	Parents/guardians	Baseline and follow-up household surveys; administrative data; findings from Objectives 1 and 2	Food insecurity among children; food insecurity of households with children
Objective 4. To determine how impacts on food insecurity among children and household with children vary by relevant factors			
Impact	Parents/guardians	Baseline and follow-up household surveys; findings from Objectives 1 and 2	Food insecurity among children by household income; urbanicity; race/ethnicity
Objective 5. To identify outcomes related to site-specific components of each demonstration project			
Impact	Parents/guardians	Baseline and follow-up household surveys; administrative data; findings from Objectives 1 and 2	Participation in food and nutrition assistance programs; food shopping and spending patterns; dietary quality (measured by food frequency)
Objective 6. To determine the total and component costs of each demonstration project			
Cost	Project staff, and State and local partner organizations	Document review; in-person interviews; cost workbooks; administrative data	Total project costs; component costs of ongoing operations
Objective 7. To describe the relative effectiveness and cost-efficiency of the demonstration projects			
Cost	Project staff, and State and local partner organizations; parents/guardians	Document review; in-person interviews; cost workbooks; administrative data; baseline and follow-up household surveys	Food insecurity among children; food insecurity of households with children; participation, food expenditures, and dietary quality; relative cost effectiveness

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APPENDIX A.2. RANDOM ASSIGNMENT AND BALANCE TESTING

A. Overview of random assignment design

EDECH's evaluation design uses a rigorous approach to estimating demonstration project impacts, based on a randomized controlled trial (RCT) in each project. The overall study design accommodates the variety of designs among the EDECH demonstration projects:

1. household-level random assignment with a single treatment (Kentucky),
2. household-level random assignment with two treatment arms (Nevada), and
3. clustered random assignment with groups of households randomly assigned based on their school district (Chickasaw Nation) or school (Virginia).

The reason that household-level RA was used for two grantees and cluster-level RA was used for the other two grantees is related to the nature of the intervention in each project. In Kentucky and Nevada, benefits (including enhanced SNAP benefits) are delivered to individual households, and so household-level RA is possible. In the other two school-based projects, the intervention—at least in part—is provided to groups of households rather than individual households.

B. Overview of balance testing

In providing evidence on the validity of random assignment, the most statistically valid way is to compare the baseline characteristics of the two groups based on the full sample that was randomized (where "baseline" means just before random assignment). Random assignment should result in Treatment (T) and Control (C) groups that are the same, on average, at baseline. The mean values of baseline characteristics of the two groups are compared; if many of the characteristics are significantly different by substantial amounts, that calls into question either random assignment or the way the characteristics are being compared (e.g., are the proper weights being used). The implications of this for EDECH differs in the two sets of projects:

- In CN and VA, households (HHs) in the T and C groups were compared among the full sample frame (i.e., all households with a student enrolled in a school or district that was randomly assigned) (Exhibits A.2.1-A.2.2). This analysis is limited to variables included in the sample frame since the more detailed information from the surveys isn't available for all of these households.
- In KY and NV, only households that responded to the baseline survey were randomly assigned. Because T vs C status is not defined for all HHs in the sample frame, it was not possible to compare the two groups based on the full sample frame. On the other hand, such a test is not needed since comparing the characteristics of respondents in the two groups provides this pure test in these two projects (Exhibits A.2.3-A.2.4). Moreover, because survey data are available for all of these households, a wider range of baseline characteristics can be analyzed than is possible in CN and VA.

Exhibit A.2.1. Household characteristics by random assignment group among all sampled households in Chickasaw Nation

	Treatment (n=2,143)	Control (n=2,607)
Household size (%)		
2	69.2	71.0
3-4	27.4	26.1
5+	3.4	2.9
Ethnicity (%)		
Hispanic	8.1	14.0
Language (%)		
English	98.2	94.6
Spanish/Other	1.8	5.4
Race (%)		
American Indian/Alaskan Native	37.8	30.6
White	48.8	46.2
Mixed/Other	13.4	23.2

Source: Household sample files provided by Chickasaw Nation following active consent procedures. Tabulations prepared by Mathematica Policy Research.

Note: Randomization was at the school district level. It was not feasible to conduct significance testing between treatment and control groups for the full sample for the Chickasaw Nation demonstration. Making the statistical adjustments necessary to account for the clustered design would require knowing which households contained children in multiple clusters (or school districts). This information exists only for households in the analysis sample based on responses to the survey questions about schools attended by children in the household. Characteristics for the full sample are similar to those for the analysis sample (Exhibit A.2.5) and there were no significant differences within the analysis sample.

Exhibit A.2.2. Household characteristics by random assignment group among all sampled households in Virginia

	Treatment (n = 2,487)	Control (n = 2,263)
Region (%)		
Richmond	59.0	58.7
Southwest Virginia	41.0	41.3
Ethnicity (%)		
Hispanic	5.1	5.9
Language (%)		
English	60.3	60.0
Spanish	2.5	4.5
Other	37.2	35.5
Race (%)		
White	11.8	19.2
Black	49.0	49.0
Other	2.1	1.9
Unknown	37.1	29.9

Source: Virginia Department of Education household sample files. Tabulations prepared by Mathematica Policy Research.

Note: Randomization was at the school level within each of the two sites (Richmond and the southwest). It was not feasible to conduct significance testing between treatment and control groups for the full sample for the Virginia demonstration. Making the statistical adjustments necessary to account for the clustered design would require knowing which households contained children in multiple clusters (or schools). This information exists only for households in the analysis sample based on responses to the survey questions about schools attended by children in the household. Characteristics for the full sample are similar to those for the analysis sample (Exhibit A.2.6) and there were no significant differences within the analysis sample.

Exhibit A.2.3. Household characteristics by random assignment group among responding households in Kentucky

	Treatment (n 1,103)	Control (n=1,009)	Significance level
Household (HH) size			
Mean number of HH members who share food	3.6	3.8	**
Number of children			
Percent of households with:			
1 child	36.5	33.3	
2 children	36.6	36.7	
3 or more children	26.9	30.0	
Mean number of children in household	2.0	2.1	*
Any household adult employed in last 30 days	39.7	39.2	
Last month household income[a]			
Mean ($)	1,097	1,098	
Mean earned among employed ($)	1,101	1,128	
No income (%)	1.9	1.7	
Gender of respondent (%)			
Female	87.5	88.7	
Age of respondent (%)			
29 years or younger	23.7	24.0	
30 to 39 years	35.7	36.4	
40 to 49 years	20.2	22.8	
50 to 59 years	14.1	11.5	
60 years or older	6.3	5.2	
Race/Ethnicity (%)			
Hispanic, all races	1.3	1.2	
Black, non-Hispanic	1.7	0.9	
White, non-Hispanic	93.1	94.0	
Other, non-Hispanic	4.0	3.8	
Age of children (%)			
4 years or younger	41.1	39.8	
5 to 11 years	60.5	59.8	
12 to 17 years	42.8	46.3	
18 years (or older if still in high school)	3.8	4.0	
Nutrition assistance (%)			
Reported receiving SNAP	100.0	100.0	
Reported receiving WIC	26.9	28.8	
Reported receiving FRP NSLP	74.4	74.5	
Reported receiving food from pantry/emergency kitchen	19.4	19.4	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: Paired t-tests were conducted to test for significant differences between the treatment and the control groups for each characteristic.

[a] Income from all sources, earned and unearned.

* Difference between groups is significant at the 0.05 level.

** Difference between groups is significant at the 0.01 level.

FRP = free or reduced-price; HH= household; NSLP = National School Lunch Program; SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Exhibit A.2.4. Household characteristics by random assignment group among responding households in Nevada

	Treatment #1 (SNAP benefits) (n=981)	Treatment #2 (SNAP benefits plus case management/ nutrition education) (n=990)	Control (n=1,117)	Significance level
Household (HH) size				
Mean number of HH members who share food	4.6	4.5	4.5	
Number of children				
Percent of households with:				
1 child	17.6	16.9	20.6	
2 children	27.8	28.1	27.7	
3 or more children	54.6	55.0	51.7	
Mean number of children in household	2.9	2.9	2.8	
Any household adult employed in last 30 days	60.4	55.8	55.5	*
Last month total household income				
Mean ($)	1,046	990	1,003	
No income (%)	8.2	10.7	11.5	*
Gender (%)				
Female	93.6	93.7	94.7	
Age of respondent (%)				
Under 20 years	1.4	0.8	1.3	
20 to 29 years	43.9	43.7	46.7	
30 to 39 years	40.7	42.4	39.4	
40 to 49 years	11.1	10.0	10.2	
50 to 59 years	1.9	1.9	2.0	
60 years or older	0.9	1.2	0.4	
Race/Ethnicity (%)				
Hispanic, all races	57.3	55.3	57.5	
Black, non-Hispanic	25.9	23.2	25.7	
White, non-Hispanic	10.4	14.0	10.3	
Other, non-Hispanic	6.4	7.5	6.5	
Age of children (%)				
4 years or younger	100.0	100.0	100.0	
5 to 11 years	62.4	60.0	59.1	
12 to 17 years	27.8	30.8	26.6	
18 years (or older if still in high school)	3.2	2.9	2.8	
Nutrition assistance (%)				
Reported receiving SNAP	100.0	100.0	100.0	
Reported receiving WIC	59.2	62.2	59.7	
Reported receiving FRP NSLP	66.5	65.4	64.1	
Reported receiving food from pantry/emergency kitchen	13.2	15.0	11.8	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: Paired t-tests were conducted to test for significant differences in means between the treatment and the control groups for each characteristic.

*Differences between groups is significant at the 0.05 level.

FRP = free or reduced-price; HH= household; NSLP = National School Lunch Program; SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

In CN and VA, however, the pure test of RA validity has a big limitation, in which survey data are not available for all of the households that were randomized. So even if the above comparison suggests that RA led to similar T and C groups, that does not tell the evaluation team whether the same holds true in the analysis sample, which only includes household survey respondents. It is possible that non-response bias led to systematic differences between the T and C groups, even if RA itself worked well. This leads to the second test—comparing the baseline characteristics of the T and C groups using the sample of respondents in the analysis sample (Exhibits A.2.5 and A.2.6). Here, data are used from the baseline survey for the main comparison. In addition, however, the comparison includes variables from the sample frame. It's useful to examine the sample frame variables even though they are much more limited than the baseline survey variables, because it allows the evaluation team to see whether any T-C differences observed come from issues with random assignment (if the differences were already there in the "pure" test described above), or if they come from non-response bias (if the T and C groups were similar in the pure test but T-C differences emerged when the sample was limited to respondents).

A second test isn't necessary for KY and NV because it's already been done. The sample of households that was randomized is exactly the same as the sample of households that responded to the baseline survey, so the single pure test described above is sufficient.

Exhibit A.2.5. Household characteristics by random assignment group among responding households in Chickasaw Nation

Baseline survey variables	Treatment (n 1,340)	Control (n 1,519)	Significance level
Household (HH) size			
Mean number of HH members who share food	4.4	4.5	
Number of children			
Percent of households with:			
1 child	19.7	19.6	
2 children	35.4	34.8	
3 or more children	44.8	45.7	
Mean number of children in household	2.5	2.6	
Any household adult employed in last 30 days	74.8	76.4	
Last month total household income			
Mean ($)	1,963	1976	
No income (%)	2.6	3.6	*
Gender of respondent (%)			
Female	90.4	89.8	
Age of respondent (%)			
Under 20 years	0.3	0.3	
20 to 29 years	20.8	18.1	
30 to 39 years	44.7	44.6	
40 to 49 years	20.7	24.3	
50 to 59 years	8.8	8.5	
60 years or older	4.6	4.3	

Exhibit A.2.5. (*continued*)

Baseline survey variables	Treatment (n 1,340)	Control (n 1,519)	Significance level
Race/Ethnicity (%)			
Hispanic, all races	8.8	14.6	
Black, non-Hispanic	3.1	5.6	
White, non-Hispanic	58.7	54.6	
Other, non-Hispanic	29.5	25.3	
Age of children (%)			
4 years or younger	32.4	32.6	
5 to 11 years	77.5	79.8	
12 to 17 years	53.6	52.9	
18 years (or older if still in high school)	5.8	7.0	
Nutrition assistance (%)			
Reported receiving SNAP	46.1	44.0	
Reported receiving WIC	18.6	20.6	
Reported receiving FRP NSLP	95.2	95.5	
Reported receiving food from pantry/emergency kitchen	17.2	14.6	
Sample frame variables	**(n= 1,340)**	**(n=1,519)**	
Household size (%)			
2	68.4	69.6	
3-4	28.1	27.3	
5+	3.5	3.1	
Ethnicity (%)			
Hispanic	8.6	13.2	
Language (%)			
English	97.9	94.8	
Spanish/Other	2.1	5.2	
Race (%)			
American Indian/Alaskan Native	37.6	32.2	
White	48.8	46.2	
Mixed/Other	13.6	21.6	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey; Sample frame household variables provided by Chickasaw Nation following active consent procedures. Tabulations prepared by Mathematica Policy Research.

Note: Paired t-tests were conducted to test for significant differences between the treatment and the control groups for each characteristic. The tests account for the clustering of households within school districts. None of the differences between the treatment and the control group are statistically significant.

FRP = free or reduced-price; HH= household; NSLP = National School Lunch Program; SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Exhibit A.2.6. Household characteristics by random assignment group among responding households in Virginia

Baseline survey variables	Treatment (n 1,380)	Control (n 1,216)	Significance level
Household (HH) size			
Mean number of HH members who share food	4.1	4.0	
Number of children			
Percent of households with:			
1 child	25.2	29.0	
2 children	39.0	35.0	
3 or more children	35.8	36.0	
Mean number of children in household	2.3	2.3	
Any household adult employed in last 30 days	68.3	70.0	
Last month total household income			
Mean ($)	2,215	2,314	
No income (%)	5.3	5.4	
Gender of respondent (%)			
Female	86.7	86.2	
Age of respondent (%)			
Under 20 years	0.3	0.1	
20 to 29 years	19.0	19.1	
30 to 39 years	41.6	43.0	
40 to 49 years	25.0	24.3	
50 to 59 years	9.1	9.7	
60 years or older	4.9	3.8	
Race/Ethnicity (%)			
Hispanic, all races	7.8	7.8	
Black, non-Hispanic	45.7	46.5	
White, non-Hispanic	41.9	41.8	
Other, non-Hispanic	4.6	3.8	
Age of children (%)			
4 years or younger	31.0	29.4	
5 to 11 years	79.1	80.2	
12 to 17 years	49.6	47.9	
18 years (or older if still in high school)	6.2	5.2	
Nutrition assistance (%)			
Reported receiving SNAP	48.3	46.1	
Reported receiving WIC	13.1	13.3	
Reported receiving FRP NSLP	83.3	83.9	
Reported receiving food from pantry/emergency kitchen	12.7	9.7	
Sample frame variables	**(n=1,380)**	**(n=1,216)**	
Region (%)			
Richmond	58.0	58.6	
Southwest VA	42.0	41.4	
Ethnicity (%)			
Hispanic	7.3	8.7	

Exhibit A.2.6. (*continued*)

Baseline survey variables	Treatment (n 1,380)	Control (n 1,216)	Significance level
Language (%)			
English	61.5	58.7	
Spanish	2.4	4.2	
Other	36.1	37.1	
Race (%)			
White	14.0	18.5	
Black	48.0	49.1	
Other	2.0	1.8	
Unknown	36.0	30.6	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: Paired t-tests were conducted to test for significant differences between the treatment and the control groups for each characteristic. The tests account for the clustering of households within schools. None of the differences between the treatment and the control group are statistically significant.

FRP = free or reduced-price; HH= household; NSLP = National School Lunch Program; SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

C. Results of the balance testing

The main findings from the balance testing are summarized below, first for the two school-based projects and then for the two SNAP-based projects.

Chickasaw Nation

In CN, the treatment group households were slightly less likely to be Hispanic (8% vs. 14%), and slightly more likely to be American Indian or Alaska Native (38% vs. 31%) than the control group based on the sample frame characteristics (Exhibit A.2.1). However, there were no significant treatment-control differences in either the baseline survey characteristics or the frame variables among households that responded to the baseline survey in CN, with the exception of a small difference in the percentage reporting no income (3% in the treatment group vs. 4% in the control group) (Exhibit A.2.5).

Virginia

In VA, the distributions of ethnicity and language in the treatment and control groups were similar among the full sample frame. A higher proportion of treatment households had unknown race (37%) compared to the control households (30%), making it difficult to assess differences in the racial distribution based on the sample frame variables (Exhibit A.2.2). There were no significant treatment-control differences in either the baseline survey characteristics or the frame variables among households that responded to the baseline survey in VA (Exhibit A.2.6).

Kentucky

In KY, the treatment group households were slightly smaller (3.6 members) than the control group (3.8 members, on average), with slightly less children per household, on average (2.0 versus 2.1, respectively) (Exhibit A.2.3) based on respondents to the baseline survey (prior to randomization). However, these differences are small and there were no other treatment-control differences in either the baseline survey characteristics or the frame variables among households that responded to the baseline survey in KY (Exhibit A.2.3).

Nevada

The only significant (but small) difference in baseline survey characteristics between the responding two treatment groups and the control group in Nevada was for: (1) the proportion of households with an employed adult in the last 30 days, 60% in the first treatment group and 56% in the second treatment and control groups; and (2) a related characteristic, no income (Exhibit A.2.4). The percentage of households reporting no income was 8% in the first treatment group, 11% in the second treatment group, and 12% in the control group.

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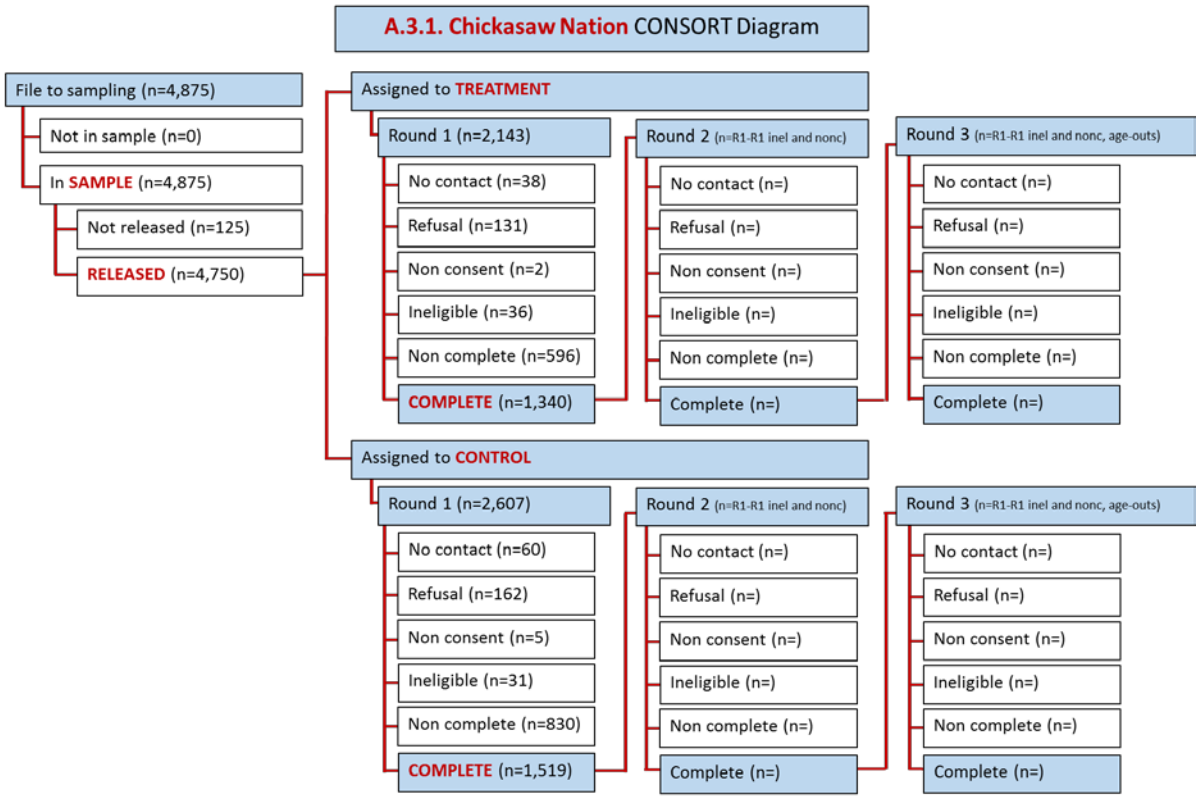
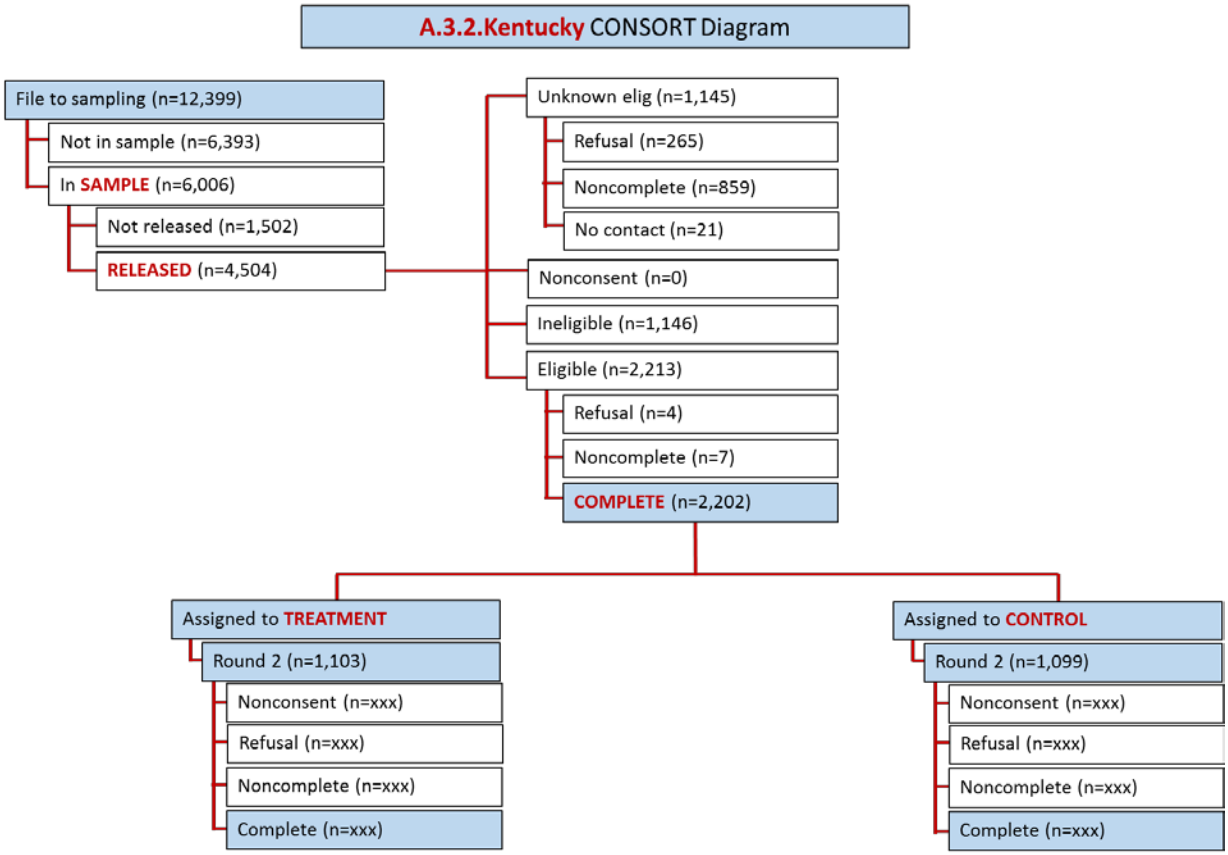
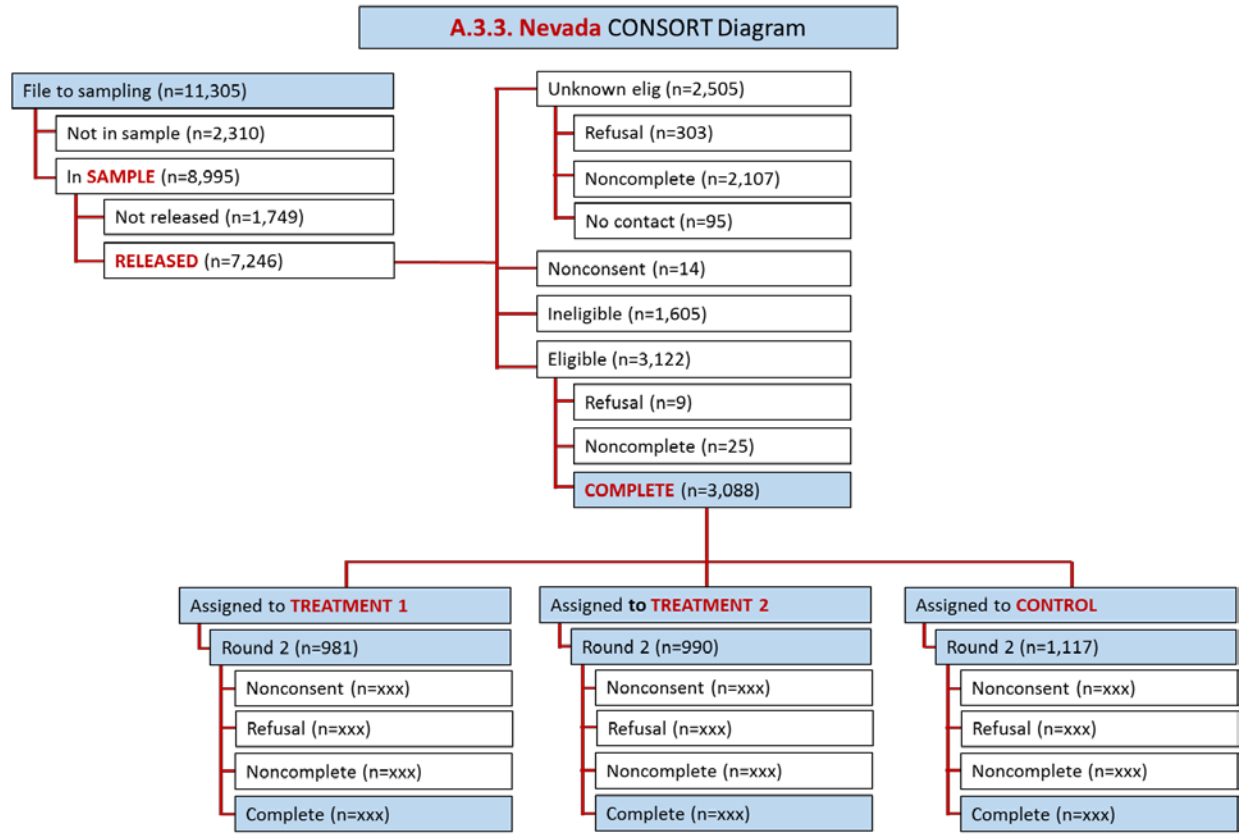
APPENDIX A.3. CONSORT FLOW DIAGRAMS FOR EDECH DEMONSTRATION PROJECTS



Note: Round 2 information will be completed after all of the follow-up surveys have been conducted and the cases have a final status.
inel = ineligible; nonc = nonconsent; R = round

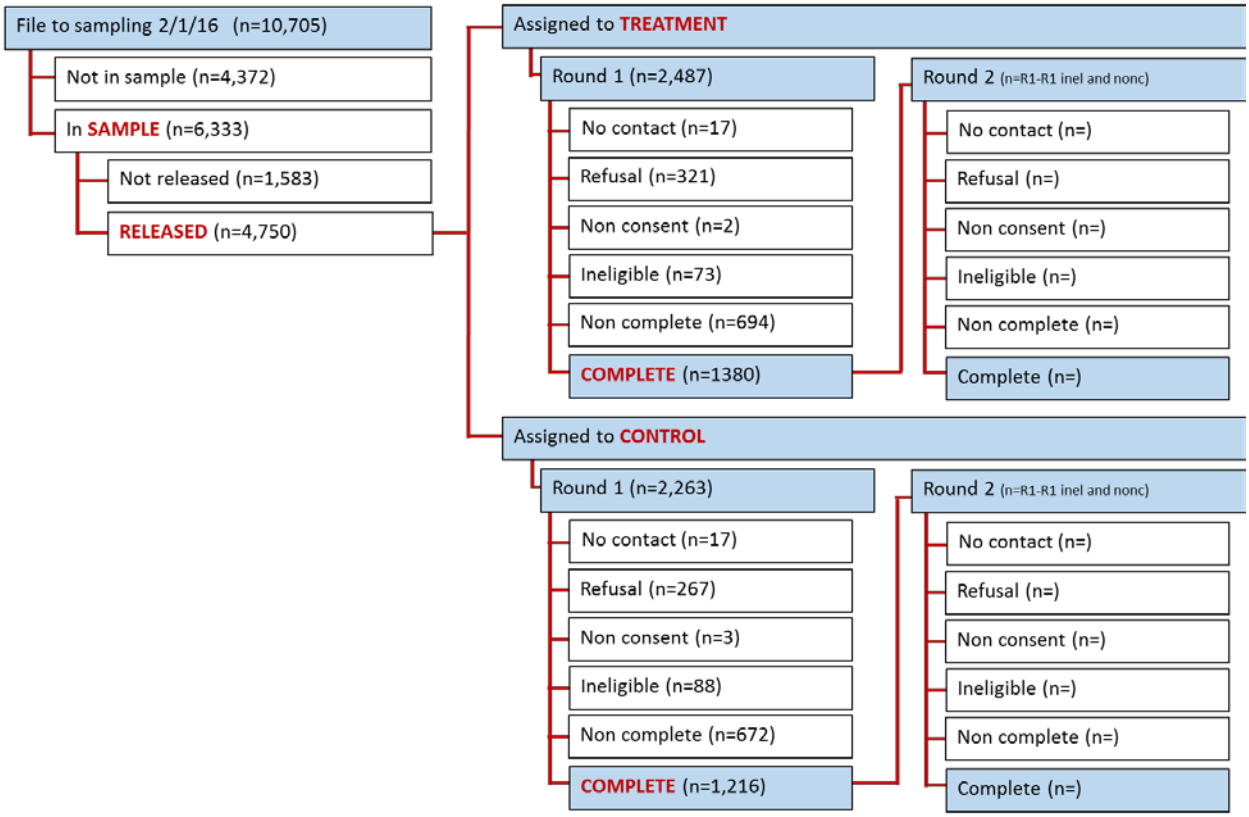


Note: Round 2 information will be completed after all of the follow-up surveys have been conducted and the cases have a final status.
elig = eligible



Note: Round 2 information will be completed after all of the follow-up surveys have been conducted and the cases have a final status.
elig = eligible

A.3.4. Virginia CONSORT Diagram



Note: Round 2 information will be completed after all of the follow-up surveys have been conducted and the cases have a final status.
inel = ineligible; nonc = nonconsent; R = round

APPENDIX A.4. SAMPLE WEIGHTS FOR THE BASELINE ANALYSIS

This appendix describes the creation of sample weights for the analysis of baseline data in the four EDECH projects where baseline data were collected. The appendix first describes the general features of the sample weights and what design and analytic features are accounted for by the weights. It then more specifically goes through the process by which weights were constructed in each of the four projects. A total of nine weights were constructed: for each of the four projects there is a separate weight constructed for each random assignment group.[24]

A. General features of the sample weights

Sample weights are applied to an analysis sample in order to make the data for that sample representative of a broader population. In the case of EDECH, the population being generalized to includes the households potentially eligible for the demonstration services being offered as part of EDECH. Since each of the four EDECH projects uses a randomized experimental design, weights were created that make both the group of treatment households in the analysis sample and the group of control households in that sample representative of the broader household population.

If the sample included all households in the population, one can think of weights being equal to 1 for all sample households. In reality, the sample doesn't include all households in the population, so the sample weights must be adjusted to account for four key aspects of the study design and data collection, as described below.

1. ***Initial sampling:*** Ultimately, the sample for which data were collected should be representative of the broader population of eligible households. If simple random sampling were employed, with each household in the population having exactly the same probability of being selected into this sample, all sample members would end up with the same weight. However, if certain groups of households are oversampled (have a higher than average probability of being selected) or undersampled (have a lower than average probability), then the weights need to account for these differences. Over or undersampling can occur by design or by chance due to the process used to select the sample (e.g., rounding in sampling from small strata). Generally, the adjustment involves dividing the weight for each household (in this case, each household starts with an initial weight of 1) by that household's probability of being selected into the sample. Thus, a household that had a 10% chance of being selected into the sample would have a weight of 10 (i.e., that sampled household would represent 10 households in the population), while a household with a 20% chance of being selected into the sample would have a weight of 5.
2. ***Random Assignment:*** Randomly assigning households selected into the sample can be thought of as another stage of randomly selecting samples. In other words, the treatment group is a subsample of the full randomly selected sample, and so is the control group. As above, if every household has exactly the same probability of being selected into the treatment group, there is no need to adjust the weights for random assignment. In all four

[24] Three projects have two random assignment groups each and one project has three random assignment groups.

projects, however, blocked or stratified random assignment was conducted, and in practice not all households had the same probability of being selected into the treatment group. A separate adjustment to the weights was used to account for the random assignment probability in the case of the treatment group and control group. For households that ended up in the treatment group, the weight was divided by the probability of being assigned to the treatment group. For households in the control group, the weight was divided by the probability of being assigned to the control group (or one minus the probability of being assigned to the treatment group).

3. ***Eligibility Determination:*** The sample that is ultimately used for analysis differs from the sample initially selected for analysis because of households found to be ineligible (discussed in this step) as well as survey nonresponse (discussed in step 4).[25] Prior to selecting the sample, any eligibility information obtained was taken into account so that known ineligible households were excluded from the sample frame. However, some households were deemed ineligible after they were selected to be in the sample (i.e., updated information from administrative records or from survey responses). There are also households in the sample that have an unknown eligibility status, which could be due to a noncomplete survey, refusal to complete the survey, or inability to contact the household. These households with unknown eligibility status are accounted for with an adjustment to the weights, giving more weight to sample members from groups with low rates of eligibility determination and less weight to those from groups with high rates of eligibility determination. To do this, at least some information on the characteristics of the full population of households is needed so that which sorts of households had higher and which had lower eligibility determination rates is known. The challenge is that there is often limited information available on the full population, though some household-level demographic information such as household size, language, income, and race is available. In addition to these first order variables, interaction terms (using Chi-square Automatic Interaction Detector[26]) for the modeling were considered. The adjustment is equal to the inverse of the probability of having a known eligibility status for the survey, where the probability is obtained from a stepwise regression model. For example, if district and language are found to be significant predictors of eligibility determination from the stepwise logistic regression, then a household from district A that speaks Spanish will have a different probability of having a known eligibility status (and thus a different eligibility determination adjustment) than a household from district B that speaks English. This adjustment to the random assignment-adjusted sampling weights was applied to the respondents, eligible nonrespondents, and ineligible households, and the weight was set to 0 for the nonrespondents with undetermined eligibility. After this adjustment, the weights approximately add up to the sample frame, which includes ineligible households. After dropping the undetermined and ineligible households, the weights add up to the best estimate of the eligible population. In particular, for Kentucky, administrative data were received that indicated households were SNAP eligible, and for Nevada, that

[25] These last two adjustments to the weights would need to be different for different data sources, since the analysis sample of households with non-missing data presumably differs for different data sources. Separate weights will be created for analysis of follow-up survey data.

[26] For more information about this procedure, see: http://www.statisticssolutions.com/non-parametric-analysis-chaid/.

households were receiving SNAP. Some cases in Nevada became SNAP ineligible and later excluded from the sample after random assignment. Some of the SNAP eligible households that were not contacted or who didn't complete the survey could be ineligible for another reason, and thus when the eligibility determination adjustment was calculated SNAP ineligible households were not included because they were ineligible for a reason that does not apply to the households with unknown eligibility.

4. ***Survey Nonresponse***: Not all eligible households selected to be in the sample completed the survey. A nonresponse adjustment to the eligibility-adjusted weights in the previous step accounts for this by giving more weight to eligible sample members from groups with low response rates and less weight to those from groups with high response rates. Similar to the eligibility determination adjustment, some information about both responding and nonresponding households is needed so that which sorts of households had higher and which had lower response rates is known. The actual adjustment to the weights is the inverse of a household's probability of responding to the survey (more specifically, the probability that a household with that set of characteristics responds to the survey), where the probability is again determined by a stepwise logistic regression model. In this model, the goal is to look for variables that are significantly associated with response. This adjustment was applied to the eligibility-adjusted sampling weights for the respondents and the weight was set to 0 for the eligible nonrespondents, who are then dropped.

After applying and combining all four weighting adjustments, the weight distribution and associated design effect was examined to determine whether weight trimming was necessary to mitigate the impact of weighting on the variance of estimates, and to avoid the risk of any one household having undue influence on estimates due to a very high weight. No trimming was necessary. At the end of the weighting process, each household that completed a survey has a positive weight, and the sum of the weights should equal the estimate of the full population of eligible households.

B. Sample weights for each demonstration project

1. Chickasaw Nation

To determine how to construct weights for a given project, it is critical to define the population and understand exactly how sampling and random assignment were conducted in that project. In the case of CN, the population includes households living in school districts participating in the evaluation and with a child in preschool or a higher grade who is eligible for free school meals (or attends a community eligibility provision school), and who consented to participate in the demonstration. From this population, a stratified random sample was selected where school districts made up the strata and within strata, there was equal probability of selection. In practice, however, even if the same sampling ratio was used with each stratum, the actual proportion of households selected into the sample may differ from stratum to stratum. Rounding could cause this.

Once the sample was selected, households were randomly assigned to either the treatment or control groups. Clustered and blocked (stratified) random assignment was used, with households clustered into school districts and school districts grouped into matched pairs before randomly assigning one group to the treatment group and the other to the control group. In one sense, the a

priori probability of each household being assigned to the treatment group is 0.50 since each was part of a matched pair of districts and each district had an equal likelihood of being randomly assigned to the treatment group. In practice, however, among the households in a matched pair the a posteriori or after-the-fact probability of being assigned to the treatment group for a given household is typically not 0.50 unless there is an equal number of sampled households in each district in a given matched pair.

Finally, after random assignment, baseline data collection was conducted. In the process of data collection, it was determined that some households from the initially selected sample were ineligible, while others were eligible (and either responded to the survey or did not), and still others had unknown eligibility (and, by definition, did not respond to the survey). The analysis sample includes households that completed the baseline survey.

To construct the weights, each household in the sampling frame should receive an equal weight, so each household gets an initial weight of 1. This weight is then adjusted to account for the fact that no analysis file is available that includes each household in the population. In other words, this weight is adjusted to account for these various ways the sample deviates from the population.

Adjustment 1. First, the initial stratified sampling stage was adjusted. Here, the weight was divided by each household's probability of being selected into the sample, which depended on their strata.

$$p_{ij}^{s} = Prob\{HH\ i\ in\ stratum\ j\ selected\ into\ sample\} = \frac{n_j^s}{N_j}$$

The numerator represents the number of households in stratum (district) j selected and released into the sample. The denominator represents the total number of households from that stratum in the population.

The weight for household i in stratum j that accounts for selection into the sample is:

$$W_i^s = \frac{1}{p_{ij}^s}$$

Adjustment 2. Ultimately, the weights will be applied separately to the treatment group and control group and the weighted samples within each of these groups will generalize to the eligible population. To account for random assignment, the probability that each household was assigned to the group to which they were assigned (treatment or control) was determined. In Chickasaw Nation, a clustered and blocked randomization approach was used. Households were first grouped into clusters based on school districts. The school districts were then grouped into blocks of two—these "matched pairs" of districts were matched on the basis of having similar characteristics. Each matched pair was then randomized separately, with the households in one of the two districts randomly assigned to the treatment group and the households in the other district going into the control group. The probability of ending up in a given group thus depended on whether it is the treatment or control group, the matched pair to which a household belongs (which is indexed using k), and the number of sampled households in each of the districts in that matched pair.

For a given household (HH) i in a given stratum (district) j in a given matched pair k, the probability of being assigned to the treatment group is:

$$p_{ijk}^{T} = Prob\{HH\ i\ in\ stratum\ j\ in\ pair\ k\ assigned\ to\ T\ group\} = \frac{\sum_{i \in t_k} W_{ij}^{S}}{\sum_{i \in t_k + c_k} W_{ij}^{S}}$$

Where t_k denotes the households in the treatment group in matched pair k and c_k denotes the households in the control group in matched pair k.

The numerator is the sum of the weights from the first adjustment for all the sampled households from district j in pair k that were assigned to the treatment group, and the denominator is that number plus the sum of the weights for all the sampled households from district j in pair k that were assigned to the control group. In other words, the denominator sums the weights for all sampled households in that matched pair. The probability of being assigned to the control group is equal to 1 minus the probability of being assigned to the treatment group.

To adjust the sample weight from step one, the weight was divided by the probability of being assigned to the group that the household was, in fact, assigned to. In other words, for households in the treatment group, the weight was divided by the probability of being assigned to the treatment group; for households in the control group, the weight was divided by the probability of being assigned to the control group. In addition, one further adjustment was made—dividing by these probabilities, the weighted sum of the treatment group sample will approximately equal the total population size and the weighted sum of the control group sample will also approximately equal the total population size, depending on how the sampling weights were distributed across the randomization groups. Thus, the weighted sum of the full sample is approximately equal to two times the population size. To re-size the weights, all weights were multiplied by 0.5, or whatever was needed to get each randomization group's weight to add up to half the frame count.

So the weight for treatment group household i in district j and pair k that accounts for initial selection and random assignment is:

$$W_i^{s,T} = \frac{1}{p_{ij}^{s}} * \frac{1}{p_{ijk}^{T}} * 0.5 = \frac{0.5}{(p_{ij}^{s} * p_{ijk}^{T})}$$

And for control group households it is:

$$W_i^{s,C} = \frac{1}{p_{ij}^{s}} * \frac{1}{(1 - p_{ijk}^{T})} * 0.5 = \frac{0.5}{\left(p_{ij}^{s} * \left(1 - p_{ijk}^{T}\right)\right)}$$

Adjustment 3. Next, the weights were adjusted for the fact that some households were found with certainty to be eligible or ineligible during data collection, while the eligibility of other households remains unknown. To properly assign some of the weights for the undetermined households to known eligible sample members and the rest to known ineligible sample members, the probability of having a known eligibility status was calculated by running a stepwise regression model that includes characteristics of the full population and relevant interaction terms, separately for the treatment group of households and the control group, and applying the

resulting adjustment to all households with known eligibility status before dropping the ineligible households. The model determines which of these characteristics is significantly associated with having a known eligibility status, and the resulting fitted values from the model represents the probability as determined by these significant characteristics. The inverse of this probability is the adjustment factor that is multiplied to the weights from the previous step among households with determined eligibility (with 0 assigned to those with undetermined eligibility).

$$W_i^{s,T,e} = \frac{1}{p_{ij}^s} * \frac{1}{p_{ijk}^T} * 0.5 * \frac{1}{p_i^e} = \frac{0.5}{(p_{ij}^s * p_{ijk}^T * p_i^e)}$$

$$W_i^{s,C,e} = \frac{1}{p_{ij}^s} * \frac{1}{(1 - p_{ijk}^T)} * 0.5 * \frac{1}{p_i^e} = \frac{0.5}{\left(p_{ij}^s * \left(1 - p_{ijk}^T\right) * p_i^e\right)}$$

After this step, all respondents, nonrespondents, and ineligible households have a positive weight, while the households with undetermined eligibility have a weight of zero and were dropped from the final survey nonresponse adjustment. The goal here is to have the sum of the weights equal the full population, including ineligible households. To ensure this, a final ratio adjustment was applied at this step due to the variability of propensity scores used for adjustments in the previous adjustments. This adjustment involved multiplying each weight by the ratio of the target sum divided by the sum of the current weights. After this adjustment was applied, ineligibles were dropped from the sample for the final survey nonresponse adjustment. Thus, the sum of weights for the remaining households is approximately equal the full population of eligible households.

Adjustment 4. Finally, the eligibility determination-adjusted weights were adjusted for survey nonresponse. Initially, something similar was planned for the eligibility determination adjustment; for each household in the sample of eligible households, a probability of completing a baseline survey would be calculated, based on the characteristics of the household, which would be done separately for households in the treatment and control groups. However, since there were very few eligible nonrespondents, a simple ratio adjustment was made by summing the weights of the respondents and dividing by the sum of the weights for all respondents and eligible nonrespondents to calculate the probability. Since eligible nonrespondent counts are so small, the weights were not summed by strata, but the sums were calculated separately for the treatment and control groups. Therefore, the probability becomes:

$$p_i^{T,r} = \frac{\sum_{i \in t_r} W_i^{s,T,e}}{\sum_{i \in t_r + t_n} W_i^{s,T,e}}$$

$$p_i^{C,r} = \frac{\sum_{i \in c_r} W_i^{s,C,e}}{\sum_{i \in c_r + c_n} W_i^{s,C,e}}$$

Where t_r denotes the responding households in the treatment group, t_n denotes the nonresponding households in the treatment group, c_r denotes the responding households in the control group, and c_n denotes the nonresponding households in the control group.

The inverse of this probability was multiplied to the weight from the previous three adjustments to calculate the final weight for respondents (0 otherwise).

$$W_i^{s,T,e,r} = \frac{0.5}{(p_{ij}^s * p_{ijk}^T * p_i^e)} * \frac{1}{p_i^{T,r}} = \frac{0.5}{(p_{ij}^s * p_{ijk}^T * p_i^e * p_i^{T,r})}$$

$$W_i^{s,C,e,r} = \frac{0.5}{(p_{ij}^s * (1 - p_{ijk}^T) * p_i^e)} * \frac{1}{p_i^{C,r}} = \frac{0.5}{(p_{ij}^s * (1 - p_{ijk}^T) * p_i^e * p_i^{C,r})}$$

This final weight accounts for sampling, random assignment, eligibility determination, and survey nonresponse, and the sum of the weights should equal the best guess for half the number of eligible households in the population. Again, due to the variability of propensity score adjustments in the previous steps, the weight may not exactly sum to this target, so a final adjustment was applied that involves multiplying each weight by the ratio of the target sum divided by the sum of the current weights.

2. Virginia

The creation of sample weights in Virginia proceeded in the same way as with CN, since the sampling and random approach was the same in the two projects. The population of interest in Virginia included the households of all students receiving free or reduced-price meals (or attending community eligibility provision schools) in schools participating in the study. One difference between Virginia and CN is that households were clustered into schools in Virginia (rather than school districts) prior to being matched into pairs and then randomly assigned. Therefore, there are some households that have one child in a control school, and another child in a treatment school. The probability of being assigned to the treatment group was first calculated by matched pair. For a given matched pair k, the probability of a household in that matched pair being assigned to the treatment group is:

$$p_k^T = Prob\{household\ in\ pair\ k\ assigned\ to\ T\ group\} = \frac{\sum_{i \in sch^T{}_k} W_{ij}^S}{\sum_{i \in sch^T{}_k + sch^C{}_k} W_{ij}^S}$$

Where $sch^T{}_k$ denotes the treatment school in matched pair k and $sch^C{}_k$ denotes the control school in matched pair k. Note that if a household has multiple children in different schools that were assigned to different matched pairs, the household will be contributing to more than one matched pair's probability calculation. The probability of being assigned to the control group is equal to 1 minus the probability of being assigned to the treatment group.

The calculation for the random assignment adjustment for a given household depends on whether the household was assigned to the treatment or control group, and how many different schools the household has children attending. For treatment households with all children attending the same school in matched pair k, the adjustment for household i is equal to:

$$ra\_adj_{i,k}^T = \frac{0.5}{p_k^T}$$

And analogously, for control households with all children attending the same school, it is:

$$ra\_adj_{i,k}^{C} = \frac{0.5}{p_k^C}$$

For households that had children attending two different schools in different matched pairs, the probabilities for each matched pair were accounted for. Thus, for treatment households with one child attending school in matched pair k_1 and a second child attending school in matched pair k_2, the adjustment is equal to:

$$ra\_adj_{i,k_1,k_2}^{T} = \frac{0.5}{p_{k1}^T + p_{k2}^T - (p_{k1}^T * p_{k2}^T)}$$

The denominator represents the probability that a household in matched pair k_1 is in the treatment group *or* a household in matched pair k_2 is in the treatment group. For control households with children attending two different schools in different matched pairs, the adjustment is slightly different:

$$ra\_adj_{i,k_1,k_2}^{C} = \frac{0.5}{(p_{k1}^C * p_{k2}^C)}$$

The denominator here represents the probability that a household in matched pair k_1 is in the control group *and* a household in matched pair k_2 is in the control group.

The same logic was used to calculate the adjustment for treatment households that have children attending three different schools.[27] Using the laws of probability, the adjustment becomes:

$$ra\_adj_{i,k_1,k_2,k_3}^{T} = \frac{0.5}{p_{k1}^T + p_{k2}^T + p_{k3}^T - (p_{k1}^T * p_{k2}^T) - (p_{k1}^T * p_{k3}^T) - (p_{k2}^T * p_{k3}^T) + (p_{k1}^T * p_{k2}^T * p_{k3}^T)}$$

As such, the fact that households with children in multiple schools have a higher probability of being assigned to the treatment group is controlled for.[28]

[27] No households have children attending four or more different schools, and the three households that have children attending three schools are all treatment households.

[28] There are three households that have children attending two different schools, but the schools are in the same matched pair. In these cases, the adjustment was calculated in the same way as households that had children attending two different schools in two different matched pairs, and the probability of being in the treatment group in the first matched pair was assumed to be the same as the probability of being in the treatment group for the second matched pair. Theoretically though, these households had a probability of being in the treatment group equal to 1 because one school in a matched pair is guaranteed to be a treatment school, so these households will most likely be dropped in the impact (follow-up) analysis.

One final difference between Chickasaw Nation and Virginia is that in the initial sampling stage for Virginia, the stratification was only by region (Richmond versus southwest Virginia) and not by school. The formulas for weights in Virginia are the same as the formulas in CN.

$$W_i^{s,T,e,r} = \frac{0.5}{(p_{ij}^s * ra\_adj_{i,k}^T * p_i^e * p_i^{T,r})}$$

$$W_i^{s,C,e,r} = \frac{0.5}{(p_{ij}^s * ra\_adj_{i,k}^C * p_i^e * p_i^{C,r})}$$

3. Nevada

In Nevada, the order of the study design activities was different than in CN and Virginia. Random assignment (RA) was done before the survey was administered in CN and Virginia, but in Nevada and Kentucky, RA was only done among baseline survey completes. However, the process for constructing sample weights is similar. The population of interest includes SNAP households headed by an adult with children aged 0 to 5 and with income below 75% of the poverty line in 12 participating zip codes within Clark County. First, a sample of these households was selected, and then a baseline survey was conducted among them. Only those households that completed a baseline survey were then randomly assigned.[29]

Adjustment 1. A simple random sample was used in the initial sampling of households in Nevada, so each household in the population had an equal chance of being selected. Adjusting the weight for initial sampling was not essential, but the weight was divided by the probability of selection to ensure that the weighted size of the sample is equal to the population size. With no strata, the weight is adjusted only for the probability of sampling and is equal to the overall inverse probability of selection.

$$p_i^s = Prob\{HH\ i\ selected\ into\ sample\} = \frac{n^s}{N}$$

The numerator represents the number of households in Nevada that were selected and released into the sample, and the denominator represents the total number of households in the sampling frame. A backup sample was selected in all four projects in case enough completes were not obtained from the original sample, but Nevada is the only project where the backup sample was released. Therefore, for Nevada *all* released cases (initial sample releases and backups) were included in the numerator for the selection probability.

[29] Because random assignment was conducted using only households that completed the baseline survey, one could make the argument that the relevant population of interest should include only eligible households in the participating zip codes that would complete a baseline survey if given the chance. Random assignment ensures that the intervention was given at random to households in this group and does not give information about the eligible households that did not (or would not, if selected into the sample) complete a baseline survey. While this is true in a technical sense, from a policy perspective there is more interest in the broader population of all eligible households and so the weights were designed to be representative of this broader group.

The weight for household i that accounts for selection into the sample is:

$$W_i^s = \frac{1}{p_i^s}$$

Adjustment 2. Next, the baseline data collection was conducted. The weights were adjusted for the fact that some households were found with certainty to be eligible or ineligible during data collection, while the eligibility of other households remains unknown. This adjustment is the same as Adjustment 3 in CN and VA with two exceptions: only one model was needed because treatment and control groups were not separate at this point, and this eligibility determination adjustment is applied to the sampling weight without the random assignment adjustment since random assignment had not yet occurred when the survey was administered. Thus, after adjusting for sampling and eligibility determination, the weight becomes:

$$W_i^{s,e} = \frac{1}{p_i^s} * \frac{1}{p_i^e} = \frac{1}{(p_i^s * p_i^e)}$$

Adjustment 3. Next, the weights were adjusted for survey nonresponse. This adjustment is analogous to Adjustment 4 in CN and VA, other than the two exceptions described above. The weight which combines the adjustments for sampling, eligibility determination, and survey nonresponse is:

$$W_i^{s,e,r} = \frac{1}{p_i^s} * \frac{1}{p_i^e} * \frac{1}{p_i^r} = \frac{1}{(p_i^s * p_i^e * p_i^r)}$$

Adjustment 4. Finally, the weights were adjusted for random assignment. In Nevada, random assignment was conducted at the household level—in other words, households were not initially clustered prior to random assignment, and random assignment was only conducted among households that completed the survey. However, there was blocking or stratification prior to random assignment. Households were randomly assigned into one of three groups—two treatment groups (T1 and T2) and a control group (C). The random assignment was stratified based on zip code, number of children in the household, and baseline food security. The probability of being assigned to each of the three groups was approximately equal (1/3) but when rounding was necessary it generally favored the control group. Thus, the control group ended up being slightly larger than either treatment group. The logic of the weight adjustment is the same here as in the other projects; each household's weight was adjusted based on the inverse of the probability of being assigned to the group to which they were actually assigned. This probability depends on the group they were assigned to as well as their stratum.

For a given household i in stratum j, the probability of being assigned to the first treatment group is:

$$p_{ij}^{T1} = Prob\{HH\ i\ in\ stratum\ j\ assigned\ to\ T1\ group\} = \frac{\sum_{i \in t1_k} W_i^{s,e,r}}{\sum_{i \in t1_k + t2_k + c_k} W_i^{s,e,r}}$$

Where $t1_k$ denotes the households in the first treatment group, $t2_k$ denotes the households in the second treatment group, and c_k denotes the households the control group.

The numerator is the sum of the weights among sampled households in stratum *j* that were assigned to the first treatment group, and the denominator is that number plus the sum of the weights among sampled households in stratum *j* assigned to the second treatment group, plus the sum of the weights among households in stratum *j* assigned to the control group. In other words, the denominator is the sum of the weights of all households in that stratum that completed a baseline survey. The probability of being assigned to the second treatment group was calculated analogously, and the probability of being assigned to the control group is equal to 1 minus the probability of being assigned to either the first or second treatment group.

The weight from the first three adjustments was divided by the probability of being assigned to the group that the household was, in fact, assigned to. In addition, the adjustment for each group was multiplied by approximately one third to ensure that the weighted sum of the full sample equals the population size and each group's weights sum up to one-third the estimate of the eligible population.

In other words, the final weight for treatment group 1 household i in stratum j is:

$$W_i^{s,e,r,T1} = \frac{1}{(p_{ij}^s * p_i^e * p_i^r)} * \frac{1}{p_{ij}^{T1}} * 0.333 = \frac{0.333}{(p_i^s * p_i^e * p_i^r * p_{ij}^{T1})}$$

The final weight for treatment group 2 household i in stratum j is:

$$W_i^{s,e,r,T2} = \frac{1}{(p_{ij}^s * p_i^e * p_i^r)} * \frac{1}{p_{ij}^{T2}} * 0.333 = \frac{0.333}{(p_i^s * p_i^e * p_i^r * p_{ij}^{T2})}$$

And for control group households it is:

$$W_i^{s,e,r,C} = \frac{1}{(p_{ij}^s * p_i^e * p_i^r)} * \frac{1}{(1 - p_{ij}^{T1} - p_{ij}^{T2})} * 0.333 = \frac{0.333}{(p_i^s * p_i^e * p_i^r * (1 - p_{ij}^{T1} - p_{ij}^{T2}))}$$

This final weight accounts for sampling, eligibility determination, survey nonresponse, and random assignment, and the sum of the weights should equal the best guess for the number of eligible households in the population. Again, due to the variability of propensity score adjustments in the previous steps, the weight did not exactly sum to this target, so a final adjustment was applied that involves multiplying each weight by the ratio of the target sum divided by the sum of the current weights.

4. Kentucky

The process for sampling, baseline data collection, and random assignment in Kentucky was similar to the process used in Nevada. The population is SNAP households in the counties participating in the study with an adult head, children under age 18, positive net income, and that were not participating in the SNAP-ET evaluation. One difference between the States is that the initial sampling of households was stratified in Kentucky—by county and presence/absence of earnings—but not in Nevada. Another difference between Kentucky and Nevada is that there is only one treatment group (along with one control group) in the former versus two in the latter.

The stratification was by county and presence/absence of earning as well, but as in Nevada, there was no clustering of households in Kentucky, just stratification before random assignment.

So the weights in Kentucky for treatment households are:

$$W_i^{s,e,r,T} = \frac{0.5}{(p_{ij}^s * p_i^e * p_i^r * p_{ij}^T)}$$

And for control group households it is:

$$W_i^{s,e,r,C} = \frac{0.5}{(p_{ij}^s * p_i^e * p_i^r * (1 - p_{ij}^T))}$$

APPENDIX A.5. EDECH NONRESPONSE BIAS ANALYSIS FOR THE BASELINE SURVEY

In each of the demonstration sites, between one-half and two-thirds of sampled eligible households completed the baseline survey. Kentucky had the highest response rate at 66.0%, while Nevada experienced the lowest rate of 56.9%. Chickasaw Nation and Virginia had response rates slightly over 60% (62.0 and 61.5%, respectively). Because these response rates fell short of an 80% benchmark (FNS 2015), a nonresponse bias analysis was conducted in each of the four projects. Nonresponse bias can rarely be measured directly, since it is not known how the nonrespondents would have responded to the survey, but the characteristics believed to be correlated with key survey outcomes and that are available for both respondents and nonrespondents can be investigated.

To address the implications of survey nonresponse, as well as to account for the sampling design, survey weights were calculated to be used in the analysis, which will be comprised of independent evaluations for each demonstration project rather than a pooled analysis. In this nonresponse bias analysis, whether there are meaningful differences between the characteristics of survey respondents and nonrespondents and whether weights helped mitigate those differences were determined. The ultimate goal is to demonstrate that the weighted distribution of respondents is similar to the full sample frame[30] in terms of key characteristics.[31] This will shed light on the question of whether survey nonresponse has the potential to lead to biased estimates in the evaluation. For example, suppose that three quarters of survey responders come from a household of size two, compared with only half of the target population. Respondents from smaller households may have a tendency to answer some survey questions differently than respondents from larger households, so without weighting the high proportion of households of size two among responders could lead to bias in the estimates of survey responses, since the population of interest contains a smaller proportion of size two households than the proportion among the survey respondents.

For each demonstration project, a couple of key comparisons were undertaken for a series of characteristics available for all sample members. First, while unrelated to nonresponse bias, sampled households are compared to those not sampled without applying any weights to determine whether there are substantial differences in these two groups resulting from the initial sampling of households. Then, among the sampled households, eligible respondents are compared to nonrespondents (mostly those with unknown eligibility status, but some known to be eligible), applying a sampling weight that solely accounts for the probability of selection (and not for nonresponse).[32] This comparison will shed light on the possibility of bias arising from

[30] The sample frame refers to the list of all households believed to be in the target population in each of the four EDECH demonstration projects.

[31] One caveat of this process is that the survey provides information about the respondents that is unknown for nonrespondents. Therefore, characteristics in the nonresponse bias analysis must be used that are available for both respondents and nonrespondents and that could be correlated with key survey outcomes.

[32] Sample members that were found to be ineligible are excluded. The numbers of such sample members are indicated in the notes under each exhibit.

survey nonresponse. Finally, the distribution of characteristics among survey respondents—after applying the final nonresponse-adjusted weights—is compared to the distribution of characteristics among the full sample frame.[33] Since the purpose of the final weights is to account for the sampling design and nonresponse, this comparison will ideally confirm that any differences in the previous two comparisons have been accounted for by the final weight.

Chickasaw Nation

There were four demographic variables that were available to analyze for Chickasaw Nation: household size, ethnicity, language, and race. In Chickasaw Nation, nearly all households on the frame were sampled, so the comparison of sampled households to those not sampled becomes less relevant. When looking at sample-weighted distributions between the eligible respondents and the nonrespondents, there are significant differences with regard to ethnicity and language, with no significant differences for the other two variables (Exhibit A.5.1). Hispanic households occur more frequently among the respondents (12.3 vs. 10.0%), and responding households are more likely than nonresponding households to be non-English speaking (4.4 vs. 2.9%).

These differences in ethnicity and language disappear when the fully weighted sample of 2,859 respondents is compared to the frame of 4,875 households. There are 0.4 percentage points more Hispanic households in the full frame than among the respondents (11.3 vs. 10.9%), and the difference in the proportion of non-English speakers is only 0.1 percentage point (3.8 vs. 3.7% for the full frame and the respondents, respectively). Furthermore, the frame contains slightly more households of size two (70.4 vs. 69.0%) and there are 1.2 percentage points fewer American Indian/Alaskan Native households in the sample frame (33.7 vs. 34.9%).

[33] It is not appropriate to run a conventional statistical test comparing means or distributions for the full sample frame to corresponding weighted estimates for the respondents, as the two groups are not independent. In Kentucky, the respondents represent 19% of the frame; in Nevada they represent 31%; in Chickasaw Nation they represent 59%; and in Virginia they represent 24%. On the other hand, removing the overlapping cases from the frame and then making a comparison between the remainder and the weighted respondents confounds issues of sampling, eligibility, and response patterns. The frame is known to contain ineligible households among those not sampled or among those sampled but not responding, whereas the respondents are all known to be eligible (though ineligibility was a larger issue for Virginia and Nevada than it was for Kentucky and Chickasaw Nation). In addition, there were some small differences in distributions (and in one mean) between sampled and nonsampled households due to chance. Thus, any statistically significant differences found in such a comparison could not be attributed to nonresponse, which is the purpose of this analysis. Because of this issue, significance tests are not conducted for this comparison.

Exhibit A.5.1. Characteristics in the Chickasaw Nation demonstration project

	Unweighted			Sampling Adjustment		Final Weight
Characteristic	Frame (n=4,875)	Not Sampled (n=125)	Sampled (n=4,750)	Eligible Respondents[a] (n=2,859)	Nonrespondents (n=1,803)	Eligible Respondents (n=2,859)
Household Size (%)						
2	70.4	76.8	70.2	69.1	71.8	69.0
3-4	26.5	20.0	26.7	27.4	25.6	27.7
5+	3.1	3.2	3.1	3.5	2.7	3.3
Hispanic (%)	11.3	9.6	11.3	12.3	10.0*	10.9
Language (%)						
English	96.2	97.6	96.2	95.6	97.1†	96.3
Other	3.8	2.4	3.8	4.4	2.9†	3.7
Race (%)						
American Indian/Alaskan Native	33.7	28.8	33.8	34.1	34.0	34.9
White	47.4	49.6	47.4	46.6	48.0	47.5
Mixed/Other	18.9	21.6	18.8	19.3	18.1	17.6

[a] There were 88 sampled households that were identified as ineligible, which were dropped from the analysis; however, a certain proportion of the nonrespondents included in this analysis are assumed to be ineligible.

* Difference between groups is statistically significant at the 0.05 level. Significance was tested for two sets of groups, sampled versus not sampled households (unweighted) and eligible respondents versus nonrespondents (sample weighted).

† Difference between groups is statistically significant at the 0.05 level.

Kentucky

There were several demographic variables contained on Kentucky's sample frame data file (used in the process of calculating sample weights) that may differ for sampled versus nonsampled households or for respondents versus nonrespondents. These variables include the presence or absence of earnings, household size, gender,[34] race, gross income, and net income. Among these characteristics, there are no significant differences between sampled households and those not sampled in five of these variables. The only characteristic for which there is a significant difference between sampled and non-sampled households is for the presence/absence of earnings (Exhibit A.5.2). Sampled households are less likely to have earnings (37.8%) when compared to households that were not sampled (40.3%), which is statistically significant at the 0.05 level.

Similarly, among sampled households there are no significant differences in sample-weighted estimates between eligible respondents and nonrespondents in five of these variables. The exception here is again earnings: respondents are less likely to have earnings (36.4 vs. 41.2%). However, when the 2,202 eligible respondents are weighted by their final weight, the

[34] Individual-level variables such as gender and race refer to the respondent in the household who was the most knowledgeable about the household and children's food choices, since weighting and analysis is conducted at the household level.

weighted proportion of households with earnings (38.2%) grows closer to that of the entire frame of 11,296 households (39.5%), with a difference of only 1.3 percentage points. The weighted distributions of the other demographic variables among respondents are also similar to the distributions of the sample frame. All differences in the categorical measures are less than 2 percentage points, and the differences in the two income measures are less than $7.

Exhibit A.5.2. Characteristics in the Kentucky demonstration project

	Unweighted			Sampling Adjustment		Final Weight
Characteristic	Frame (n=11,296)	Not Sampled (n=7,895)	Sampled (n=3,401)	Eligible Respondents[a] (n=2,202)	Nonrespondents (n=1,156)	Eligible Respondents (n=2,202)
Presence of earnings (%)	39.5	40.3	37.8*	36.4	41.2*	38.2
Household size (%)						
2	20.1	20.4	19.3	19.1	19.2	19.2
3-4	59.6	59.1	60.9	61.4	60.3	61.5
5+	20.3	20.5	19.8	19.5	20.5	19.3
Gender - male (%)	16.1	16.0	16.3	15.9	16.3	15.7
Race (%)						
White	92.2	92.1	92.5	92.7	92.3	92.7
Non-white	2.3	2.3	2.4	2.6	2.2	2.6
Unknown	5.4	5.6	5.1	4.7	5.5	4.7
Monthly gross income ($)	1,169	1,174	1,157	1,168	1,141	1,162
Monthly net income ($)	766	768	761	775	741	766

* Difference between groups is statistically significant at the 0.05 level. Significance was tested for two sets of groups, sampled versus not sampled households (unweighted) and eligible respondents versus nonrespondents (sample weighted).

[a] There were 43 sampled households that were identified as ineligible, which were dropped from the analysis; however, a certain proportion of the nonrespondents included in this analysis are assumed to be ineligible.

Nevada

For Nevada, seven demographic variables were used from the frame file in the weighting process: number of children in the household, the household size, gender, race, ethnicity,[35] language, and gross income. When comparing sampled households to non-sampled households, statistically significant differences exist for all of these characteristics except household size and race (Exhibit A.5.3). However, the magnitude of the differences is small; the largest difference occurs for language, where 27.8% of sampled households have Spanish speakers compared to 24.0% in non-sampled households, a difference of 3.8 percentage points.

[35] Hispanic vs. non-Hispanic.

Exhibit A.5.3. Characteristics in the Nevada demonstration project

	Unweighted			Sampling Adjustment		Final Weight
Characteristic	Frame (n=9,992)	Not Sampled (n=4,059)	Sampled (n=5,933)	Eligible Respondents[a] (n=3,088)	Nonrespondents (n=2,553)	Eligible Respondents (n=3,088)
Number of children in household (%)			*			
1	24.8	26.6	23.6	22.2	25.0	22.8
2	29.5	29.1	29.8	29.7	29.5	29.7
3	23.2	22.7	23.5	24.4	23.1	24.1
4+	22.5	21.6	23.0	23.7	22.5	23.5
Household size (%)						
2	28.0	27.8	28.1	28.5	27.2	27.8
3-4	49.3	49.5	49.2	49.3	49.2	49.2
5+	22.7	22.6	22.7	22.2	23.6	22.9
Gender - male (%)	6.4	7.4	5.7*	5.1	6.3	5.6
Race (%)					*	
White	63.9	63.5	64.2	66.3	61.8	64.1
Non-white	36.1	36.5	35.8	33.7	38.2	35.9
Hispanic (%)	52.5	50.8	53.7*	56.7	49.8*	53.3
Language (%)			*		*	
English	73.4	75.6	71.9	65.9	78.7	70.9
Spanish	26.3	24.0	27.8	33.8	21.0	28.9
Unknown	0.3	0.4	0.3	0.3	0.3	0.3
Monthly gross income ($)	415	399	426*	435	415	423

[a] There were 292 sampled households that were identified as ineligible, which were dropped from the analysis; however, a certain proportion of the nonrespondents included in this analysis are assumed to be ineligible.

* Difference between groups is statistically significant at the 0.05 level. Significance was tested for two sets of groups, sampled versus not sampled households (unweighted) and eligible respondents versus nonrespondents (sample weighted).

Among the sampled households, there are significant differences between respondents and nonrespondents for sample-weighted estimates for three of the seven variables. There are again significant differences for language and ethnicity with respondents more likely to be Hispanic (56.7 vs. 49.8% for nonrespondents) and to have Spanish as the main language in the home (33.8 vs. 21.0%). Race also becomes significant, with a higher percentage of white households among the respondents than among the nonrespondents (66.3 vs. 61.8%).

After applying the final weight, however, the distribution of the 3,088 respondents falls back into alignment with the full sample frame of 9,992 households; all differences in the six categorical variables are within one percentage point with the exception of language, where the weighted proportion of Spanish speaking households is 2.6 percentage points higher for the group of respondents than for the frame (28.9 vs. 26.3%). Meanwhile, the difference in weighted mean gross income is less than $10, with responding households having a slightly higher mean than the frame ($423 vs. $415).

Virginia

In the Virginia data, there were four demographic characteristics available for the entire frame: region (Richmond vs. Southwest), ethnicity, language, and race. Of these four, only race showed a significant difference between sampled and non-sampled households even though the magnitude of the differences is quite small (less than 1 percentage point) (Exhibit A.5.4).

When turning to the comparison of sample-weighted estimates between eligible respondents and nonrespondents, the differences are statistically significant for all four characteristics. The largest difference in magnitude is seen in language, which is less likely to be unknown for responding households than nonresponding households (34.7 vs. 39.8%). Almost identical patterns were found for unknown ethnicity and unknown race. Also, a higher proportion of responding households live in Richmond than do nonresponding households (60.1 vs. 55.9%).

However, the differences are negligible when the fully weighted 2,596 responding households are compared to the frame of 10,705 households. The proportions for all four characteristics are all within one percentage point of each other, with the largest difference seen in the proportion of households with an unknown race (33.3% of respondents vs. 34.1% in the frame).

Exhibit A.5.4. Characteristics in the Virginia demonstration project

	Unweighted			Sampling Adjustment		Final Weight
Characteristic	Frame (n=10,705)	Not Sampled (n=5,955)	Sampled (n=4,750)	Eligible Respondents[a] (n=2,596)	Nonrespondents (n=1,825)	Eligible Respondents (n=2,596)
Region (%)					*	
Richmond	58.9	58.9	58.9	60.1	55.9	58.3
Southwest VA	41.1	41.1	41.1	39.9	44.1	41.7
Hispanic (%)					*	
Yes	58.0	57.6	58.4	58.7	57.2	58.5
No	5.7	5.8	5.5	6.7	3.5	5.1
Unknown	36.4	36.6	36.1	34.6	39.3	36.4
Language (%)					*	
English	59.9	59.6	60.2	60.9	58.1	60.1
Spanish	3.5	3.6	3.4	4.4	2.1	3.3
Unknown	36.6	36.8	36.4	34.7	39.8	36.6
Race (%)			*		*	
White	15.5	15.6	15.3	16.9	13.3	16.2
Black	48.8	48.7	49.0	49.0	48.0	48.5
Other	1.6	1.3	2.0	1.9	1.9	1.9
Unknown	34.1	34.4	33.7	32.2	36.8	33.3

[a] There were 329 sampled households that were identified as ineligible, which were dropped from the analysis; however, a certain proportion of the nonrespondents included in this analysis are assumed to be ineligible.

* Difference between groups is statistically significant at the 0.05 level. Significance was tested for two sets of groups, sampled versus not sampled households (unweighted) and eligible respondents versus nonrespondents (sample weighted).

APPENDIX B

BASELINE SURVEY DATA COLLECTION METHODS

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CONTENTS

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B.1. DATA COLLECTION METHODS

1. Telephone interviewer training

Prior to data collection, telephone interviewers completed 16 hours of general and project-specific training. The 8-hour general training ensured that interviewers were well-versed in establishing rapport, maintaining participant confidentiality, minimizing nonresponse, and administering computer-assisted telephone interviews (CATI). The 8-hour project-specific training covered the study background, data collection procedures and goals, refusal aversion techniques, and data security. Interviewers passed a certification test before they began to collect data.

2. Baseline survey data collection

Grantees submitted files containing eligible households and contact information. Evaluation samples were then selected, as described in greater detail in Chapter II. Sample selection included both main and backup, or holdout, samples for grantees with sufficiently large populations (or numbers of consented households). The backup samples were drawn in case the projected number of completes was going to fall short of the target; backup samples could then be released to help reach the target.

Sample members' contact information was then submitted to two commercial locating databases before data collection began. The purpose of these submissions was twofold: (1) to obtain additional telephone numbers for households, and (2) to triangulate the telephone numbers already available on the sampling frames. Telephone numbers found in more than one source (for example, the sampling frame and one or both of the databases) were prioritized for dialing.

The baseline CATI survey was administered in both English and Spanish for at least 16 weeks. The target respondents were parents/guardians in eligible households. Because grantees' implementation timelines varied, so did the timing of each field period (Exhibit B.1).

Exhibit B.1. Grantees' baseline data collection periods

Grantee	Baseline start	Baseline end
Chickasaw Nation	November 2015	February 2016
Kentucky	August 2016	November 2016
Nevada	October 2015	March 2016
Virginia	February 2016	May 2016

Across the four grantees, 21,250 households were contacted. Households received an advance letter describing the evaluation and the purpose of the interview, and inviting sample members to call a toll-free number to complete the survey. Shortly after the letters were mailed, outbound calls were placed to households. Household interviews were attempted multiple times at different times of the day, from the morning to the evening, and across all days of the week to maximize the chances of speaking with a sample member. Participating households were mailed a $30 gift card as a thank-you payment for their participation. Non-responding households received additional follow-up as described below.

Response rates for each demonstration were monitored daily and follow-up strategies were adapted to address local considerations to maximize participation. Households received mail, email (if an email address was available), and postcard reminders throughout the field period. Sample members who refused to participate received an additional refusal conversion letter. Messages in follow-up communications were varied over time and across grantees to adapt to the local populations. For example, many sample members in one of the areas said they did not need the demonstration project benefits, and the benefits should go to other families. Written and verbal communications were modified to emphasize that sample members' participation in the evaluation had the potential to help others. Other adaptive approaches included distributing reminder flyers to non-responding households through schools as a means to augment mail, email, and telephone communications; extending the field period; and in Nevada, when the response rate was projected to fall short of the target, an additional 500 cases were released from the backup sample in order to complete more interviews during the field period.

Despite using commercial locating databases prior to data collection, many households had outdated contact information. Updated contact information was requested from grantees during data collection so that new telephone numbers and addresses could be attempted. Additional in-house locating, including Internet searches and more in-depth searches in commercial locating databases, were also performed.

B.2. BASELINE SURVEY INSTRUMENT

The final baseline questionnaire for households is shown in Appendix B.2.

OMB Clearance Number: 0584-0603
Expiration Date: 08/31/2018

Evaluation of Demonstration Projects to End Childhood Hunger

Final Baseline Questionnaire for Households

July 15, 2016

A. Introduction

ALL
IF DEMONSTRATION NE CHICKASAW NATION FILL1=two parts - an interview that will take about 30 minutes today, and a second interview about 12 months later. AND FILL2=interview IF DEMONSTRATION=CHICKASAW NATION FILL1=three parts - an interview that will take about 30 minutes today, a second interview about 12 months from now, and a third interview about 18 months from now. The second and third interviews will also each take about 30 minutes. AND FILL2=interviews

BA1. For quality assurance purposes, this call may be monitored or recorded.

The study has [two parts - an interview that will take about 30 minutes today, and a second interview about 12 months later/three parts - an interview that will take about 30 minutes today, a second interview about 12 months from now, and a third interview about 18 months from now. The second and third interviews will also each take about 30 minutes.] As a way of saying thank you, you will get $30 for completing the interview today and a similar amount for the future [interview/interviews]. We will send you a prepaid gift card after you complete each interview.

The interviews have questions about your children's food choices as well as general questions about you and your household. Your answers will help the government make its child nutrition programs better.

Your participation in this interview is voluntary and you may stop at any time. You may also refuse to answer any question. Your benefits will not be affected by any answers to questions or if you choose not to participate.

All the information you give us will be kept private to the extent allowed by law. There is a small risk of the loss of confidentiality of your data, but procedures are in place to minimize this risk. Your name will not be attached to any of your answers. Your information will be used only in combination with information from other households for research purposes.

Do you have any questions about the interview before I begin?

YES	1	GO TO FAQ
NO	0	GO TO BB1
DON'T KNOW	d	
REFUSED	r	

B. Household Size and Composition

ALL

The first few questions are about the people you live with.

BB1. Including yourself, how many people live in your household? Don't forget to include non-relatives who live in your household and, of course, babies, small children and foster children. Also include people who usually live in your household but may have been away within the last 30 days for reasons such as: vacation, traveling for work, or in the hospital. Do not include children living away at school or anyone who is now incarcerated

PROBE IF NEEDED: By temporarily away we mean away within the last 30 days

|__|__| NUMBER OF PEOPLE
(1-20)

DON'T KNOW	d	Status refusal, Exit
REFUSED	r	Status refusal, Exit

IF BB1=1

BB1a. Just to confirm, you are the only person living in the household. There are no children, non-relatives, or people who usually live there but are currently away?

YES	1	Status ineligible, Exit
NO, CORRECT NUMBER	0	Repeat BB1
DON'T KNOW	d	Repeat BB1
REFUSED	r	Status refusal, Exit

[IF BB1 >1] AND [DEMONSTRATION = KENTUCKY

BB1b. In which county do you currently live?

[List of eligible counties]

OTHER	99	Status ineligible, Exit
DON'T KNOW	d	Status refusal, Exit
REFUSED	r	Status refusal, Exit

[IF BB1 > 1] AND [DEMONSTRATION = NEVADA]

BB1c. What is your current ZIP Code?

[List of eligible ZIP Codes]

OTHER	13	Status ineligible, Exit
DON'T KNOW	d	Status refusal, Exit
REFUSED	r	Status refusal, Exit

IF [DEMONSTRATION] = KENTUCKY OR NEVADA

BB1d. Are you or others in your household currently receiving Supplemental Nutrition Assistance Program (SNAP)?

PROBE IF NEEDED: SNAP is the program formerly known as 'Food Stamps.'

YES	1	
NO	0	GO TO BB1e
DON'T KNOW	d	GO TO BB1e
REFUSED	r	Status refusal, Exit

IF [DEMONSTRATION = KENTUCKY OR NEVADA] AND [BB1D = 0 OR DK]

BB1e. PROBE: In the past three months, have you or others in your household received SNAP benefits?

YES	1	Status ineligible, Exit
NO	0	
DON'T KNOW	d	
REFUSED	r	Status refusal, Exit

IF BB1 > 1

BB2. Do all the people who live with you share the food that is bought for the household?

YES	1	GO TO BB3
NO	0	GO TO BB2a
DON'T KNOW	d	GO TO BB2a
REFUSED	r	GO TO BB2a

BB2 = 0, D, OR R

BB2a. Including yourself, how many people in your household share the food that is bought for the household?

|__|__| NUMBER OF PEOPLE
(1-20)

DON'T KNOW	d	GO TO BB3
REFUSED	r	GO TO BB3

HARD CHECK: [IF BB2a > BB1]; **The number of people in your household who share food is greater than the total number of people in your household. Did I make a mistake?**

[IF BB1 > 1] OR [IF BB2A > 1]

[IF BB2 = 1 FILL= NUMBER FROM BB1], OTHERWISE FILL=NUMBER FROM BB2a

BB3. How many of those [NUMBER FROM BB1 OR BB2a] people in your household are children age 18 or younger or over 18 but still in high school?

|__|__| NUMBER OF PEOPLE
(0-20)

DON'T KNOW ..... d Go to BB3a

REFUSED ..... r Go to BB3a

HARD CHECK: [IF BB3 > BB1]; **The number of children living in your household is greater than or equal to the total number of people in your household. Did I make a mistake?**

HARD CHECK: [IF BB3 > BB2a]; **The number of children living in your household is greater than the total number of people sharing food in your household. Did I make a mistake?**

PROGRAMMER BOX BB3

IF BB3 GTE 1 AND DEMONSTRATION=KENTUCKY OR NEVADA, GO TO BB3B. ELSE IF BB3=D OR R GO TO BB3A. ELSE GO TO BB4.

BB3 = 0, D, OR R

BB3a. Is there at least one child living in your household?

YES ..... 1 REPEAT BB3

NO ..... 0 Status ineligible, Go to BB6

DON'T KNOW ..... d Status refusal, Exit

REFUSED ..... r Status refusal, Exit

IF DEMONSTRATION = KENTUCKY OR NEVADA

IF DEMONSTRATION = KENTUCKY FILL1= "was born after" AND FILL2 = "March 31, 2000"

IF DEMONSTRATION = NEVADA FILL1 = "will be under age 5 as of" AND FILL2 = "April 1, 2016"

BB3b. Is there at least one child living in your household who [was born after/will be under age 5 as of] [March 31, 2000/April 1, 2016]?*

YES 1

NO ..... 0 Status ineligible, Go to BB9

DON'T KNOW ..... d Status refusal, Go to BB9a

REFUSED ..... r Status refusal, Go to BB9a

*Represents the wording used to field the question; revised from the OMB version to coincide with eligibility age cut-offs and the intervention dates for the projects.

BB4. [I'd like to make a list of the first names or initials of the children in your household. This will help me with asking some questions later.] What is the name of the [first/next] child?

IF NEEDED: You can give me the child's initials or some other way to refer to the child.

_____
NAME

DON'T KNOW ..... d

REFUSED ..... r

BB3 > 0

FILL [ANSWER FROM BB4]
IF BB4 = D OR R FILL "this child"

BB4a. What is [ANSWER FROM BB4/this child]'s date of birth?

PROGRAMMER: COLLECT DATE WITH SEPARATE FIELDS

|__|__| / |__|__| / |__|__|__|__|
MONTH DAY YEAR
(1-12) (1-31) (1996-2016)

DON'T KNOW ..... d

REFUSED ..... r

BB4A = D OR R

FILL [ANSWER FROM BB4]
IF BB4 = D OR R FILL "this child"

BB4b. How old is [ANSWER FROM BB4/this child]? This information will help me with asking some questions later.

|__|__| AGE OF CHILD

(0-52)

BB4B = 0-52

BB4c. Is that weeks, months, or years?

WEEKS 1

MONTHS 2

YEARS 3

DON'T KNOW ..... d

REFUSED ..... r

SOFT CHECK: [IF BB4b > 18 AND BB4c = 3]; **The age is [ANSWER FROM BB4b] years old?**

BB3 > 0

FILL [ANSWER FROM BB4]
IF BB4 = D OR R FILL "this child"

BB3 GTE 1 AND AGE GTE 3 YEARS AND DEMONSTRATION = CHICKASAW NATION OR VIRGINIA

FILL NAME1 FROM BB4

BB4d. Is [ANSWER FROM BB4/this child] a boy or girl?

INTERVIEWER: ASK IF RESPONDENT HAS NOT ALREADY MENTIONED CHILD'S SEX.

CODE ONE ONLY

BOY 1
GIRL 2
DON'T KNOW ..... d
REFUSED ..... r

[IF BB3 > 0] AND
[IF DEMONSTRATION = CHICKASAW NATION OR VIRGINIA] AND
[[IF BB4A [YEAR] < 2013] OR [IF BB4B > 3 AND BB4C = 3] OR [IF BB4B > 36 AND BB4C = 2]]

FILL [ANSWER FROM BB4]
IF BB4 = D OR R FILL "this child"

BB4e. Is [ANSWER FROM BB4/this child] in grades pre-K through 12 in your local school system?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[IF BB4E = 1] AND [IF DEMONSTRATION = CHICKASAW NATION OR VIRGINIA]

BB4f. What school does [ANSWER FROM BB4/this child] attend?

[List of schools + "other" option; "other" option routes respondent to BB9]

DON'T KNOW ..... d
REFUSED ..... r

[IF BB4E = 1] AND [IF DEMONSTRATION = CHICKASAW NATION]

BB4g. On school days during the last 30 days, did [ANSWER FROM BB4/this child] get free lunches at school?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[IF BB4E = 1] AND [IF DEMONSTRATION = VIRGINIA]

BB4h. On school days during the last 30 days, did [ANSWER FROM BB4/this child] get free or reduced price lunches at school?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[IF BB1A = 1] OR
[IF BB3A = 0]

BB6. I apologize, this survey is for individuals with at least one child under the age of 18 in the house.

Go to END

[IF BB1 = R OR DK] or
[IF BB1a = R] or
[IF BB3a = R OR DK]

BB6a. I apologize, this survey is for individuals with at least one child under the age of 18 in the house.

Status refusal. Go to END

IF BB1B = 99

BB7. I apologize, only certain counties are eligible for participation.

Status ineligible. Go to END

IF BB1B = R OR DK

BB7a. I apologize, only certain counties are eligible for participation.

Status refusal. Go to END

IF BB1C = 13

BB8. I apologize, only certain zip codes are eligible for participation.

Status ineligible. Go to END

IF BB1C = R OR DK

BB8a. I apologize, only certain zip codes are eligible for participation.

Status refusal. Go to END

[IF BB3B = 0] OR
IF [BB1E = 1 OR DK] OR
IF [[DEMONSTRATION = CHICKASAW NATION OR VIRGINIA]] AND NO CHILDREN ATTEND AN ELIGIBLE SCHOOL IN BB4F]

BB9. I apologize, you do not meet the eligibility criteria for this study at this time. We may try to contact you again in the future.

Status ineligible. Go to END

[IF BB3B = R OR DK] OR
IF [BB1E = R] OR

BB9a. I apologize, you do not meet the eligibility criteria for this study at this time. We may try to contact you again in the future.

Status refusal. Go to END

C. Children's Program Participation

For the next series of questions we'll be asking about meals and snacks the children in your household may have had during the last 30 days, that is, since [MONTH] [DAY].

AT LEAST ONE CHILD GTE AGE 3 YEARS

BC1. On school days during the last 30 days, how many children in your household usually ate breakfast at school?

|__|__| NUMBER OF CHILDREN
(0-20)

DON'T KNOW ..... d

REFUSED ..... r

IF BC1 = 1-20, D, R

BC1a. On school days during the last 30 days, how many children in your household got free or reduced-price breakfasts at school?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

AT LEAST ONE CHILD GTE AGE 3 YEARS

BC1b. On school days during the last 30 days, how many children in your household usually ate a school lunch?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

IF BC1B = 1-20, D, R

BC1c. On school days during the last 30 days, how many children in your household got free or reduced-price lunches at school?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

AT LEAST ONE CHILD GTE AGE 3 YEARS

BC1d. During the last 30 days, how many children in your household got free supper meals at an after school program held in their school building?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

AT LEAST ONE CHILD GTE AGE 3 YEARS

BC1e. During the last 30 days, how many children in your household participated in any other after school program where meals or snacks are served?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

ALL [Asked only for period when the last 30 day period included summer.]

BC1f. During the last 30 days, how many children in your household received free meals or snacks at places such as summer school, a community center, day camp or park?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

AT LEAST ONE CHILD LTE AGE 5 YEARS

BC1g. During the last 30 days, how many children in your household received meals or snacks at a daycare center, family or group daycare home, or Head Start center?

IF NEEDED: Please include children who received meals or snacks whether the meals or snacks were free, reduced-price, or paid. Please also include meals and snacks that were included in any payment you made to the center or home.

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

AT LEAST ONE CHILD GTE AGE 3 YEARS

BC2. During the last 30 days, how many children in your household got food through a school backpack food program for children?

PROBE IF NEEDED: The Backpack Food Program provides food for children to take home from school over weekends and holidays.

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

[IF BC2 > 0] AND [IF DEMONSTRATION = VIRGINIA]

If BC2 = 1: "child"
IF BC2 > 1: "children"

BC2a. During the most recently completed school year, that is, school year 2014-2015, how often did your [child/children] usually take home a food backpack from school? Would you say…

Less often than once per month, ... 1

Once per month, ... 2

Two or three times per month, or 3

Every week? 4

DON'T KNOW ..... d

REFUSED ..... r

IF DEMONSTRATION = CHICKASAW NATION

BC3. How many children in your household received Summer EBT for Children benefits this past summer, that is, summer 2015?

|__|__| NUMBER OF CHILDREN
(0- 20)

DON'T KNOW ..... d

REFUSED ..... r

D. Food Purchase Behavior

These next questions are about where you shop for food for your household.

IF DEMONSTRATION = CHICKASAW NATION OR KENTUCKY

BD1. During the past 30 days, about how many times did you or someone in your household shop for food?

|__|__| NUMBER OF TIMES
(0-30)

DON'T KNOW ..... d

REFUSED ..... r

IF DEMONSTRATION = CHICKASAW NATION OR KENTUCKY

BD2. During the past 30 days, at what kind of store did you buy most of your groceries?

INTERVIEWER: READ ONLY IF NECESSARY

INTERVIEWER: CODE "ALDI" AS A SUPERMARKET/GROCERY STORE

CODE ONE ONLY

SUPERMARKETS/GROCERY STORES 1

DISCOUNT STORES SUCH AS WAL-MART, TARGET, OR KMART 2

WAREHOUSE CLUBS, SUCH AS PRICE CLUB, COSTCO, PACE, SAM'S CLUB, OR BJ'S 3

CONVENIENCE STORES SUCH AS 7-11, QUICK CHECK, QUICK STOP 4

GAS STATIONS, SUCH AS SHELL, FLYING J, EXXON, MARATHON OR AMACO 5

ETHNIC FOOD STORES SUCH AS BODEGAS, ASIAN FOOD MARKETS, OR CARIBBEAN MARKETS 6

FARMERS' MARKETS 7

DOLLAR STORES 8

SURPLUS/CLOSE-OUT RETAILERS SUCH AS BIG LOTS 9

OTHER (SPECIFY) 99

_____

DON'T KNOW ..... d

REFUSED ..... r

IF DEMONSTRATION = KENTUCKY

BD3. What is the <u>main</u> reason you shop at that store?

CODE ONE ONLY

LOW PRICES.....1
SALES.....2
QUALITY OF FOOD 3
VARIETY OF FOODS (GENERAL) 4
VARIETY OF SPECIAL FOODS (SUCH AS GLUTEN FREE).....5
CLOSE TO HOME/CONVENIENT 6
EASY TO GET TO 7
PRODUCE SELECTION.....8
MEAT DEPARTMENT 9
LOYALTY/FREQUENT SHOPPER PROGRAM.....10
OTHER (SPECIFY).....99

_____

DON'T KNOW .....d
REFUSED .....r

IF DEMONSTRATION = KENTUCKY

BD4. How do you usually get to the store where you bought most of your groceries in the past 30 days?

CODE ALL THAT APPLY

DRIVE OWN CAR 1
DRIVE SOMEONE ELSE'S CAR 2
SOMEONE ELSE DRIVES ME 3
WALK 4
BUS, SUBWAY, OR OTHER PUBLIC TRANSIT 5
TAXI OR OTHER PAID DRIVER 6
RIDE BICYCLE 7
OTHER (SPECIFY) 99

_____

DON'T KNOW ..... d
REFUSED ..... r

IF DEMONSTRATION = KENTUCKY

BD4a. About how many minutes does it take to go one way from home to that store?

INTERVIEWER: ENTER MIDPOINT IF RANGE IS GIVEN

|__|__|__| NUMBER OF MINUTES ONE WAY
(0-120)

DON'T KNOW ..... d
REFUSED ..... r

SOFT CHECK: IF BD4a > 60; **I just want to make sure I recorded your answer correctly. Did you say [ANSWER FROM BD4a]?**

DEMONSTRATION=CHICKASAW NATION OR KENTUCKY

BD4b. And approximately how many miles away is that store from your home – one way?

INTERVIEWER: ENTER MIDPOINT IF RANGE IS GIVEN; IF LESS THAN ONE MILE ENTER "0"

|__|__| NUMBER OF MILES ONE WAY
(0-99)

DON'T KNOW ..... d
REFUSED ..... r

SOFT CHECK: IF BD4b > 30; **I just want to make sure I recorded your answer correctly. Did you say [ANSWER FROM BD4b]?**

ALL

BD5. How many nights a week does your family typically sit down together to have dinner as a family?

CODE ONE ONLY

EVERY NIGHT 1
5 OR 6 NIGHTS 2
3 OR 4 NIGHTS 3
1 OR 2 NIGHTS 4
NEVER 5
DON'T KNOW ..... d
REFUSED ..... r

IF DEMONSTRATION = NEVADA OR VIRGINIA

BD6. During the past 7 days, how many times did you or someone else in your family prepare food for dinner or supper at home? Include times spent putting the ingredients together for dinner or supper, but do not include heating up leftovers.

|__| NUMBER (0-7)
DON'T KNOW ..... d
REFUSED ..... r

IF DEMONSTRATION = NEVADA OR VIRGINIA

BD7. How often do you shop with a grocery list? Would you say…

CODE ONE ONLY

Never, ... 1
Rarely, ... 2
Sometimes, ... 3
Most of the time, or 4
Always? 5
DON'T KNOW ..... d
REFUSED ..... r

IF DEMONSTRATION = NEVADA OR VIRGINIA

BD8. In the past 12 months, about how many classes, lectures, events, or demonstrations about how to shop for or prepare nutritious food and meals did you or another adult in your household attend?

|__|__| SESSIONS
(0-24)

DON'T KNOW ..... d

REFUSED ..... r

E. Food Security

PROGRAMMER:

SELECT APPROPRIATE FILLS DEPENDING ON NUMBER OF ADULTS AND CHILDREN IN THE HOUSEHOLD. DEFAULT TO MULTIPLE ADULTS AND MULTIPLE CHILDREN IN HOUSEHOLD.

ALL

FILL [MONTH] [DAY]

BE1. Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for your household in the last 30 days, that is, since [MONTH] [DAY].

The first statement is "We worried whether our food would run out before we got money to buy more." Was that often true, sometimes true, or never true for your household in the last 30 days?

CODE ONE ONLY

OFTEN TRUE 1
SOMETIMES TRUE 2
NEVER TRUE 3
DON'T KNOW ..... d
REFUSED ..... r

ALL

BE2. "The food that we bought just didn't last, and we didn't have money to get more." Was that often, sometimes, or never true for your household in the last 30 days?

CODE ONE ONLY

OFTEN TRUE 1
SOMETIMES TRUE 2
NEVER TRUE 3
DON'T KNOW ..... d
REFUSED ..... r

ALL

BE3. "We couldn't afford to eat balanced meals." Was that often, sometimes, or never true for your household in the last 30 days?

CODE ONE ONLY

OFTEN TRUE 1
SOMETIMES TRUE 2
NEVER TRUE 3
DON'T KNOW ..... d
REFUSED ..... r

PROGRAMMER BOX BE3

IF BE1=1 OR 2 OR BE2=1 OR 2 OR BE3=1 OR 2, GO TO BE4;
OTHERWISE, SKIP TO BE9.

[IF BE1 = 1 OR 2] OR [IF BE2 = 1 OR 2] OR [IF BE3 = 1 OR 2]

IF [BB1 – BB3] > 1: "or other adults in your household"
FILL [MONTH] [DAY]

BE4. In the last 30 days, that is, since [MONTH] [DAY], did you [or other adults in your household] ever cut the size of your meals or skip meals because there wasn't enough money for food?

YES 1
NO ..... 0 GO TO BE5
DON'T KNOW ..... d GO TO BE5
REFUSED ..... r GO TO BE5

IF BE4 = 1

BE4a. In the last 30 days, how many days did this happen?

|__|__| NUMBER OF DAYS (1-30) GO TO BE5
DON'T KNOW ..... d
REFUSED ..... r GO TO BE5

IF BE4A = D

BE4b. Do you think it was one or two days, or more than two days?

CODE ONE ONLY

ONE OR TWO DAYS 1
MORE THAN TWO DAYS 2
DON'T KNOW ..... d
REFUSED ..... r

BE1=1 OR 2 OR BE2=1 OR 2 OR BE3=1 OR 2

BE5. In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money for food?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[IF BE1 = 1 OR 2] OR [IF BE2 = 1 OR 2] OR [IF BE3 = 1 OR 2]

BE6. In the last 30 days, were you ever hungry but didn't eat because there wasn't enough money for food?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[IF BE1 = 1 OR 2] OR [IF BE2 = 1 OR 2] OR [IF BE3 = 1 OR 2]

BE7. In the last 30 days, did you lose weight because there wasn't enough money for food?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

PROGRAMMER BOX BE7

IF BE4=1 OR BE5=1 OR BE6=1 OR BE7=1, GO TO BE8; OTHERWISE, SKIP TO BE9.

[IF BE4 = 1] OR [IF BE5 = 1] OR [IF BE6 = 1] OR [IF BE7 = 1]

IF [BB1 – BB3] > 1: "or other adults in your household"

BE8. In the last 30 days, did you [or other adults in your household] ever not eat for a whole day because there wasn't enough money for food?

YES	1	
NO	0	GO TO BE9
DON'T KNOW	d	GO TO BE9
REFUSED	r	GO TO BE9

IF BE8 = 1

BE8a. In the last 30 days, how many days did this happen?

|___|___| NUMBER OF DAYS (1-30)		GO TO BE9
DON'T KNOW	d	
REFUSED	r	GO TO BE9

IF BE8a = D

BE8b. Do you think it was one or two days, or more than two days?

CODE ONE ONLY

ONE OR TWO DAYS	1
MORE THAN TWO DAYS	2
DON'T KNOW	d
REFUSED	r

ALL
IF BB3 = 1; FILL 1 “your child” IF BB3 > 1; FILL 1“children living in your household” IF BB1= 2 AND BB3 = 1; FILL 2 “I relied on only a few kinds of low-cost food to feed my child because I was running out of money to buy food.” [IF [BB1 – BB3] = 1] AND [BB3>1]; FILL 2 “I relied on only a few kinds of low-cost food to feed my children because I was running out of money to buy food.” [IF [BB1 – BB3] > 1] AND [BB3 = 1]; FILL 2 “We relied on only a few kinds of low-cost food to feed our child because we were running out of money to buy food.” [IF [BB1 – BB3] > 1] AND [BB3 > 1]; FILL 2 “We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food”

BE9. Now I’m going to read you several statements that people have made about the food situation of their children. For these statements, please tell me whether the statement was often true, sometimes true, or never true in the last 30 days for [your child/children living in your household].

[“I relied on only a few kinds of low-cost food to feed my child because I was running out of money to buy food.”/

“I relied on only a few kinds of low-cost food to feed my children because I was running out of money to buy food.”/

“We relied on only a few kinds of low-cost food to feed our child because we were running out of money to buy food.”/

“We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food.”]

Was that often, sometimes, or never true for your household in the last 30 days?

OFTEN TRUE 1

SOMETIMES TRUE 2

NEVER TRUE 3

DON’T KNOW ..... d

REFUSED ..... r

ALL
IF BB1= 2 AND BB3 = 1; FILL 1 “I couldn’t feed my child a balanced meal, because I couldn’t afford that.” [IF [BB1 – BB3] = 1] AND [BB3>1]; FILL 1 “I couldn’t feed my children a balanced meal, because I couldn’t afford that.” [IF [BB1 – BB3] > 1] AND [BB3 = 1]; FILL 1 “We couldn’t feed our child a balanced meal, because we couldn’t afford that.” [IF [BB1 – BB3] > 1] AND [BB3 > 1]; FILL 1 “We couldn’t feed our children a balanced meal, because we couldn’t afford that.”

BE10. [“I couldn’t feed my child a balanced meal, because I couldn’t afford that.”/
“I couldn’t feed my children a balanced meal, because I couldn’t afford that.”/
“We couldn’t feed our child a balanced meal, because we couldn’t afford that.”/
“We couldn’t feed our children a balanced meal, because we couldn’t afford that.”]

Was that often, sometimes, or never true for your household in the last 30 days?

OFTEN TRUE 1
SOMETIMES TRUE 2
NEVER TRUE 3
DON’T KNOW ..... d
REFUSED ..... r

ALL
IF BB1= 2 AND BB3 = 1; FILL 1 “My child was not eating enough because I just couldn’t afford enough food.” [IF [BB1 – BB3] = 1] AND [BB3>1]; FILL 1 “My children were not eating enough because I just couldn’t afford enough food.” [IF [BB1 – BB3] > 1] AND [BB3 = 1]; FILL 1 “Our child was not eating enough because we just couldn’t afford enough food” [IF [BB1 – BB3] > 1] AND [BB3 > 1]; FILL 1 “Our children were not eating enough because we just couldn’t afford enough food.”

BE11. [“My child was not eating enough because I just couldn’t afford enough food.”/
“My children were not eating enough because I just couldn’t afford enough food.”/
“Our child was not eating enough because we just couldn’t afford enough food.”/
“Our children were not eating enough because we just couldn’t afford enough food.”]

Was that often, sometimes, or never true for your household in the last 30 days?

OFTEN TRUE 1
SOMETIMES TRUE 2
NEVER TRUE 3
DON’T KNOW ..... d
REFUSED ..... r

PROGRAMMER BOX BE11

IF BE9=1 OR 2 OR BE10=1 OR 2 OR BE11=1 OR 2, GO TO BE12; OTHERWISE, SKIP TO BF1.

[IF BE9 = 1 OR 2] OR [IF BE10 = 1 OR 2] OR [IF BE11 = 1 OR 2]

FILL 1 [MONTH] [DAY]

IF BB3 = 1; FILL 2 "your child's"

IF BB3>1; FILL 2 "any of your children's"

BE12. In the last 30 days, that is, since [MONTH] [DAY], did you ever cut the size of [your child's/any of your children's] meals because there wasn't enough money for food?

YES 1

NO 0

DON'T KNOW ..... d

REFUSED ..... r

[IF BE9 = 1 OR 2] OR [IF BE10 = 1 OR 2] OR [IF BE11 = 1 OR 2]

IF BB3 = 1; FILL "your child"

IF BB3>1; FILL "any of your children"

BE13. In the last 30 days, did [your child/any of your children] ever skip meals because there wasn't enough money for food?

YES 1

NO ..... 0 GO TO BE14

DON'T KNOW ..... d GO TO BE14

REFUSED ..... r GO TO BE14

BE13 = 1

BE13a. In the last 30 days, how many days did this happen?

|___|___| NUMBER OF DAYS (1-30) GO TO BE14

DON'T KNOW ..... d GO TO BE13b

REFUSED ..... r GO TO BE14

BE13a = D

BE13b. Do you think it was one or two days, or more than two days?

CODE ONE ONLY

ONE OR TWO DAYS 1
MORE THAN TWO DAYS 2
DON'T KNOW ..... d
REFUSED ..... r

[IF BE9 = 1 OR 2] OR [IF BE10 = 1 OR 2] OR [IF BE11 = 1 OR 2]

IF BB3 = 1; FILL "was your child"
IF BB3>1; FILL "were your children"

BE14. In the last 30 days, [was your child/were your children] ever hungry but you just couldn't afford more food?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[IF BE9 = 1 OR 2] OR [IF BE10 = 1 OR 2] OR [IF BE11 = 1 OR 2]

IF BB3 = 1; FILL "your child"
IF BB3>1; FILL "any of your children"

BE15. In the last 30 days, did [your child/any of your children] ever not eat for a whole day because there wasn't enough money for food?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

F. Food Expenditures

ALL

Now, I'd like to ask some questions about shopping for food and eating at restaurants. These questions are about out-of-pocket spending on food. Later on I will ask you about purchases made with government benefits like SNAP, WIC, or FDPIR.

ALL

FILL DATE = [DATE] [MONTH]

BF1. First I'll ask you about money spent on food at supermarkets and other stores. Then we will talk about money spent at fast food restaurants and other restaurants.

Excluding any government benefits like SNAP or WIC, since [DATE] [MONTH] how much money did your family spend out of pocket at <u>supermarkets, grocery stores, and other stores</u>? Please do not include fast food restaurants and other types of restaurants.

PROBE: This includes stores such as Wal-Mart, Target, and Kmart, convenience stores like 7-11 or Mini Mart, stores like Costco or Sam's Club, dollar stores, bakeries, meat markets, vegetable stands, or farmer's markets.

PROBE: Please include the total amount spent in the past 30 days, since [DATE] [MONTH].

|___|___|___|___| MONEY SPENT ($0-$9,999)

DON'T KNOW ..... d GO TO BF4

REFUSED ..... r GO TO BF4

IF BF1 = $1-$9,999

FILL AMOUNT FROM BF1

BF2. Was any of this $[AMOUNT FROM BF1] spent on <u>nonfood items</u> such as cleaning or paper products, pet food, cigarettes or alcoholic beverages?

YES ..... 1 GO TO BF3

NO ..... 0 GO TO BF4

DON'T KNOW ..... d GO TO BF4

REFUSED ..... r GO TO BF4

IF BF2 = 1

FILL AMOUNT FROM BF1

BF3. About how much of the $[AMOUNT FROM BF1] was spent on nonfood items?

|___|___|___|___| MONEY SPENT ($0-$9,999)

DON'T KNOW ..... d GO TO BF4

REFUSED ..... r GO TO BF4

HARD CHECK: IF [BF1 = $0-9,999] AND IF [BF3 > BF1]; **The amount spent on nonfood items is greater than the total amount spent at supermarkets, grocery stores, and other stores. Did I make a mistake?**

ALL

BF4. During the last 30 days, how many times did your family <u>eat food from a fast food restaurant or other kinds of restaurants</u>? Include restaurant meals at home, at fast food or other restaurants, carryout, or drive thru.

PROBE IF NEEDED: Please include the total number of visits in the past 30 days, since [DATE] [MONTH].

PROBE IF NEEDED: Such as food you get at McDonald's, KFC, Panda Express, Taco Bell, Pizza Hut, food trucks, Applebee's, Chili's, TGI Fridays, etc.

|___|___| TIMES (0-99)

DON'T KNOW ..... d GO TO BG1

REFUSED ..... r GO TO BG1

BF4 = 1-99

BF5. About how much money did your family spend on <u>food at all types of restaurants</u> including fast food restaurants during the last 30 days?

PROBE: Please include the total amount spent in the past 30 days, since [DATE] [MONTH].

|___|___|___|___| MONEY SPENT ($0-$9,999)

DON'T KNOW ..... d GO TO BG1

REFUSED ..... r GO TO BG1

G. Other Program Participation

ALL

Next, I'm going to read the names of some programs that provide food or meals or other services to individuals or households.

ALL

FILL DATE = [DATE] [MONTH]

BG1. In the last 30 days, that is, since [DATE] [MONTH], did you or anyone in your household receive food or benefits from the Women, Infants and Children program called WIC?

YES	1	GO TO BG1A
NO	0	GO TO BG2
DON'T KNOW	d	GO TO BG2
REFUSED	r	GO TO BG2

BG1 = 1

BG1a. How many women, infants, or children in the household got WIC foods or benefits?

|___|___| NUMBER OF WOMEN, INFANTS, OR CHILDREN
(1-20)

DON'T KNOW	d	GO TO BG2
REFUSED	r	GO TO BG2

BG1A=1-20

BG1b. Of those, how many were infants or children up to age 5?

|___|___| NUMBER OF INFANTS OR CHILDREN
(0-20)

DON'T KNOW	d
REFUSED	r

ALL

BG2. In the last 30 days did you or anyone in your household receive food or meals from food pantries, food banks, local soup kitchens or emergency kitchens, community program, senior center, shelter, Meals on Wheels (or other programs delivering meals to your home), or church?

YES	1
NO	0
DON'T KNOW	d
REFUSED	r

DEMONSTRATION = CHICKASAW NATION

BG3. Do you or others in your household currently receive monthly commodity foods as part of the Food Distribution Program on Indian Reservations, also called FDPIR, *fi-dipper, or fid-purr*?

YES 1

NO 0

DON'T KNOW ..... d

REFUSED ..... r

H. SNAP Enrollment

ALL

BH1. In the last 12 months, has your household ever been enrolled in the Supplemental Nutrition Assistance Program (SNAP)?

YES	1	
NO	0	GO TO BH2a
DON'T KNOW	d	GO TO BH2a
REFUSED	r	GO TO BH2a

BH1=1

BH1a. In the last 12 months, how long did your household receive the Supplemental Nutrition Assistance Program (SNAP)? If your household received SNAP, stopped receiving it, and then started again, please include all of that time.

|___|___|___|___| AMOUNT OF TIME

(0-365)

DON'T KNOW	d	GO TO BH2a
REFUSED	r	GO TO BH2a

BH1A = 1-365

BH1b. Is that days, weeks, or months?

DAYS	1	
WEEKS	2	
MONTHS	3	
DON'T KNOW	d	GO TO BH2a
REFUSED	r	GO TO BH2a

ALL

BH2a. In total, how long have you and your household ever received the Supplemental Nutrition Assistance Program (SNAP)?

IF NEEDED: Please include <u>all</u> of the time your household has received SNAP, even if your household has started and stopped receiving benefits more than once.

|___|___|___| AMOUNT OF TIME

(0-365)

DON'T KNOW	d	GO TO BH3
REFUSED	r	GO TO BH3

IF BH2A = 1-365

BH2b. Is that days, weeks, months, or years?

CODE ONE ONLY

DAYS	1	
WEEKS	2	
MONTHS	3	
YEARS	4	
DON'T KNOW	d	GO TO BH3
REFUSED	r	GO TO BH3

[BH1=1] AND [DEMONSTRATION = CHICKASAW NATION OR VIRGINIA]

BH3. Are you or others in your household currently receiving SNAP?

YES	1	
NO	0	GO TO BI1
DON'T KNOW	d	GO TO BI1
REFUSED	r	GO TO BI1

BB1D=1 OR [BB1E=0 OR DK] OR BH3=1 AND [DEMONSTRATION = KENTUCKY]

BH4. What is the amount of the SNAP your household receives per month?

|___|___|___|___| DOLLAR AMOUNT
($1 - $9999)

DON'T KNOW	d	GO TO BI1
REFUSED	r	GO TO BI1

BB1D=1 OR [BB1E=0 OR DK] OR BH3=1 AND [DEMONSTRATION = KENTUCKY]

BH5. In the last 12 months, did the amount of the benefit increase, decrease, or stay the same?

CODE ONE ONLY

INCREASED	1	
DECREASED	2	
BOTH INCREASED AND DECREASED	3	
STAYED SAME	4	
DON'T KNOW	d	GO TO BI1
REFUSED	r	GO TO BI1

BB1D=1 OR [BB1E=0 OR DK] OR BH3=1 AND [DEMONSTRATION = KENTUCKY]

BH6. How many weeks do your SNAP benefits usually last?

INTERVIEWER: CODE ANY ANSWER GREATER THAN 8 WEEKS AS 8

|___| NUMBER OF WEEKS
(0-8)

DON'T KNOW	d	GO TO BI1
REFUSED	r	GO TO BI1

I. Household Resources

ALL

FILL [DATE] [MONTH]

BI1. The next questions are about working or jobs. Were you or any other adult in your household working for pay in the last 30 days that is, since [DATE] [MONTH]?

YES 1

NO 0

DON'T KNOW ..... d

REFUSED ..... r

DEMONSTRATION=KENTUCKY AND BI1 = 1, D, R

BI2. And what was your household's total <u>earnings</u> before taxes last month? Please include earnings from wages and salaries from a job or self-employment, or income from a rental property. Do not include income from Social Security, pensions, child support, or cash welfare benefits, or the value of SNAP benefits or food stamps, WIC, Medicaid, or public housing.

$ |___|___|___|___|___| DOLLAR AMOUNT ($0 – 99,999)

DON'T KNOW ..... d GO TO BI2a

REFUSED ..... r GO TO BI2a

BI2 = D OR R

BI2a. Some people find it easier to select earnings from a range. Please stop me when I reach your household's total earnings for <u>last month</u>. Was it…

CODE ONE ONLY

Less than $500, ... 1

$500 to less than $1,000, ... 2

$1,000 to less than $1,500, ... 3

$1,500 to less than $2,000, ... 4

$2,000 to less than $2,500, ... 5

$2,500 to less than $3,000, or 6

$3,000 or more? 7

DON'T KNOW ..... d GO TO BI3

REFUSED ..... r GO TO BI3

ALL

FILL [LAST MONTH]

BI3. What was your household's total <u>income</u> last month, during [LAST MONTH] before taxes? Please include all types of income received by all household members last month, including all earnings, Social Security, pensions, Veteran's Benefits, Unemployment Insurance, worker's compensation benefits, child support, payments from roomers or boarders, and cash welfare benefits such as TANF (*TAH-nif*) and SSI. Do not include the value of SNAP benefits or food stamps, WIC, Medicaid, or public housing.

|___|___|___|___|___| DOLLAR AMOUNT ($0 – 99,999)

NO INCOME	0	GO TO BI4
GAVE ANSWER	1	GO TO BI4
DON'T KNOW	d	GO TO BI3B
REFUSED	r	GO TO BI3B

BI3 = D OR R

BI3b. Some people find it easier to select an income range. Please stop me when I reach your household's total income for <u>last month</u>. Was it…

CODE ONE ONLY

Less than $500,	1
$500 to less than $1,000,	2
$1,000 to less than $1,500,	3
$1,500 to less than $2,000,	4
$2,000 to less than $2,500,	5
$2,500 to less than $3,000, or	6
$3,000 or more?	7
DON'T KNOW	d
REFUSED	r

ALL

BI4. And, what was your household's total income last year before taxes?

PROBE IF NEEDED: **Please include all types of income received by all household members last year, including all earnings, Social Security, pensions, Veteran's Benefits, Unemployment Insurance, worker's compensation benefits, child support, payments from roomers or boarders and cash welfare benefits such as TANF (*TAH-nif*) and SSI. Do not include the value of SNAP benefits or food stamps, WIC, Medicaid, or public housing.**

INTERVIEWER: "LAST YEAR," MEANING 2015.

|___|___|___|___|___| DOLLAR AMOUNT ($0 – 150,000)

DON'T KNOW ..... d GO TO BI4A

REFUSED ..... r GO TO BI4A

BI4 = D OR R

BI4a. Some people find it easier to select an income range. Please stop me when I reach your household's total income for last year. Was it…

CODE ONE ONLY

Less than $10,000, ... 1 GO TO BI5

$10,000 to less than $20,000, ... 2 GO TO BI5

$20,000 to less than $35,000, ... 3 GO TO BI5

$35,000 to less than $50,000, ... 4 GO TO BI5

$50,000 to less than $75,000, ... 5 GO TO BI5

$75,000 to less than $100,000, ... 6 GO TO BI5

$100,000 to less than $150,000, or ..... 7 GO TO BI5

$150,000 or more? ..... 8 GO TO BI5

DON'T KNOW ..... d GO TO BI5

REFUSED ..... r GO TO BI5

ALL

FILL [MONTH] [DAY]

BI5. The next questions are about sources of income. The answers to these and all other questions on this survey will be kept private and will never be associated with your name. During the last 30 days, that is, since [MONTH] [DAY], did you or anyone in your household receive…

CODE ONE PER ROW

	YES	NO	DON'T KNOW	REFUSED
a. TANF, Temporary Assistance to Needy Families or other welfare such as General Assistance?	1	0	d	r
b. Social Security from the government for retirement, disability, or survivors' benefits, or other retirement benefits such as a government or private pension or annuity?	1	0	d	r
c. SSI or Supplemental Security Income from the federal, state, or local government?	1	0	d	r
d. Veteran's Benefits?	1	0	d	r
e. Unemployment Insurance or worker's compensation benefits?	1	0	d	r
f. Child support payments or payments from roomers or boarders?	1	0	d	r
g. Financial support from friends or family?	1	0	d	r
h. Any other income besides earnings?	1	0	d	r

BI5H = 1

BI5H_Specify. What is that other income?

_____
DESCRIPTION

DON'T KNOW ..... d

REFUSED ..... r

[BI6 on household limitations deleted per OMB on August 10, 2015.]

ALL

BI7. Now I'd like to ask you about how much help you would expect to get from different sources if your household had a problem with which you needed help, for example, sickness or moving. After I read each source, please tell me if you would expect to get all of the help needed, most of the help needed, very little of the help needed, or no help?

INTERVIEWER: REPEAT ANSWER CHOICES AS NEEDED.

CODE ONE PER ROW

		ALL OF THE HELP NEEDED	MOST OF THE HELP NEEDED	VERY LITTLE OF THE HELP NEEDED	NO HELP	DON'T KNOW	REFUSED
a.	Family living nearby?	1	2	3	4	d	r
b.	Friends?	1	2	3	4	d	r
c.	Other people in the community besides family and friends, such as a social service agency or a church?	1	2	3	4	d	r

J. Trigger Events

The next few questions are about changes that may have occurred in your household in the past 6 months.

ALL

BJ1. Has there been a change in the number of people living in your household over the past 6 months?

YES	1	
NO	0	GO TO BJ2
DON'T KNOW	d	GO TO BJ2
REFUSED	r	GO TO BJ2

BJ1 = 1

BJ1a. What caused that change?

CODE ALL THAT APPLY

BIRTH OF CHILD	1
NEW STEP, FOSTER OR ADOPTED CHILD	2
MARRIAGE/ROMANTIC PARTNER	3
SEPARATION OR DIVORCE	4
DEATH OF HOUSEHOLD MEMBER	5
FAMILY/BOARDER/OTHER ADULT MOVED IN	6
FAMILY/BOARDER/OTHER ADULT MOVED OUT	7
HOUSEHOLD MEMBER INCARCERATED	8
OTHER (SPECIFY)	99
_____	
DON'T KNOW	d
REFUSED	r

ALL

BJ2. At any time in the past 6 months was your household evicted from your house or apartment?

YES	1
NO	0
DON'T KNOW	d
REFUSED	r

ALL

BJ3. Have you or anyone in your household had a change in employment or a change in pay or hours worked from a job in the past 6 months?

YES	1	
NO	0	GO TO BK1
DON'T KNOW	d	GO TO BK1
REFUSED	r	GO TO BK1

BJ3=1

BJ3a. What was that change in employment or a change in pay or hours worked from a job that you or someone in your household experienced in the past 6 months?

CODE ALL THAT APPLY

OBTAINED A JOB	1
LOST JOB	2
INCREASE IN PAY OR HOURS	3
DECREASE IN PAY OR HOURS	4
OTHER (SPECIFY)	99

_____

DON'T KNOW	d
REFUSED	r

K. Respondent Demographics and Health Status

ALL

BK1. Now, I have a few questions about you.

[RECORD GENDER FROM OBSERVATION.]

[PROBE ONLY IF NECESSARY: Because it is sometimes difficult to determine over the phone, I am asked to confirm with everyone…Are you male or female?]

INTERVIEWER: CODE DON'T KNOW IF RESPONDENT DOES NOT WANT TO IDENTIFY AS MALE OR FEMALE

MALE 1
FEMALE 2
DON'T KNOW ..... d
REFUSED ..... r

ALL

BK2. What is your relationship to the children living in the household?

INTERVIEWER: READ ONLY IF NECESSARY

CODE ALL THAT APPLY

BIOLOGICAL/ADOPTIVE PARENT 1
STEP-PARENT 2
GRANDPARENT 3
GREAT GRANDPARENT 4
SIBLING/STEPSIBLING 5
OTHER RELATIVE OR IN LAW 6
FOSTER PARENT 7
OTHER NON-RELATIVE 8
PARENT'S PARTNER 9
DON'T KNOW ..... d
REFUSED ..... r

ALL

BK3. Are you of Hispanic or Latino origin?

HISPANIC OR LATINO 1
NOT HISPANIC OR LATINO 0
DON'T KNOW ..... d
REFUSED ..... r

ALL

BK4. I am going to read a list of five race categories. Please choose one or more races that you consider yourself to be. American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or other Pacific Islander; White?

CODE ALL THAT APPLY

AMERICAN INDIAN OR ALASKA NATIVE 1
ASIAN 2
BLACK OR AFRICAN AMERICAN 3
NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER 4
WHITE 5
DON'T KNOW ..... d
REFUSED ..... r

ALL

BK5. What is your current marital status? Are you now married, divorced, separated, widowed, never married, or living with a partner?

CODE ONE ONLY

MARRIED 1
SEPARATED OR DIVORCED 2
WIDOWED 3
NEVER MARRIED 4
LIVING WITH PARTNER 5
DON'T KNOW ..... d
REFUSED ..... r

ALL

BK6. What is your date of birth?

PROGRAMMER: COLLECT DATE WITH SEPARATE FIELDS

|__|__| / |__|__| / |__|__|__|__|
MONTH DAY YEAR
(1-12) (1-31) (1916-2001)

DON'T KNOW ..... d
REFUSED ..... r

BK6 = D OR R

BK6a. I can record your age instead if you would like. How many years old are you?

|___|___| YEARS

(18-99)

DON'T KNOW ..... d

REFUSED ..... r

ALL

BK7. What is the highest grade or level of school you have completed or the highest degree you have received?

[ENTER HIGHEST LEVEL OF SCHOOL.]

NEVER ATTENDED/KINDERGARTEN ONLY 0

1ST GRADE 1

2ND GRADE 2

3RD GRADE 3

4TH GRADE 4

5TH GRADE 5

6TH GRADE 6

7TH GRADE 7

8TH GRADE 8

9TH GRADE 9

10TH GRADE 10

11TH GRADE 11

12TH GRADE, NO DIPLOMA 12

HIGH SCHOOL GRADUATE 13

GED OR EQUIVALENT 14

SOME COLLEGE, NO DEGREE 15

ASSOCIATE DEGREE: OCCUPATIONAL, TECHNICAL, OR VOCATIONAL PROGRAM 16

ASSOCIATE DEGREE: ACADEMIC PROGRAM 17

BACHELOR'S DEGREE (EXAMPLE: BA, AB, BS, BBA) 18

MASTER'S DEGREE (EXAMPLE: MA, MS, MEng, MEd, MBA) 19

PROFESSIONAL SCHOOL DEGREE (EXAMPLE: MD, DDS, DVM, JD) 20

DOCTORAL DEGREE (EXAMPLE: PhD, EdD) 21

DON'T KNOW ..... d

REFUSED ..... r

ALL

BK8. In general, would you say your health is excellent, very good, good, fair or poor?

CODE ONE ONLY

EXCELLENT 1
VERY GOOD 2
GOOD 3
FAIR 4
POOR 5
DON'T KNOW ..... d
REFUSED ..... r

L. Closing Information

ALL

BL1. Thank you very much for your time. You have really helped us with this study. I'd like to confirm your address so we can send you a $30 gift card within the next few weeks.

According to our records we have…

[FILL NAME FROM SAMPLE FRAME OR SCREENER]

[FILL STREET ADDRESS FROM SAMPLE FRAME]

[FILL CITY, STATE, ZIP CODE FROM SAMPLE FRAME]

[IF SECOND FOLLOW-UP FILL EMAIL ADDRESS]

[IF SECOND FOLLOW-UP FILL PHONE NUMBER]

CONTACT INFORMATION IS CORRECT ..... 1 GO TO BL2

CONTACT INFORMATION NEEDS UPDATING 0

UPDATE: NAME

UPDATE: STREET ADDRESS:

_____

STREET 1

_____

STREET 2

_____

STREET 3

_____

CITY

_____

STATE

_____

ZIP

|___|___|___| - |___|___|___| - |___|___|___| - |___|___|___|___|

_____

EMAIL

DON'T KNOW ..... d

REFUSED ..... r

ALL

BL2. [We would also like to do a second telephone interview 12 months from now to see how you are doing. You will get another prepaid card for participating in that interview.]

In case we can't reach you at this number, is there another number we should try?

CODE ONE ONLY

YES	1	
NO ADDITIONAL PHONE AVAILABLE	2	GO TO BL2C
REFUSED TO GIVE PHONE NUMBER	3	GO TO BL2C
REFUSED TO PARTICIPATE IN SECOND INTERVIEW	9	STATUS REFUSAL, GO TO END
DON'T KNOW	d	GO TO BL2C
REFUSED	r	GO TO BL2C

BL2 = 1

BL2a. What is the telephone number we should try?

|___|___|___| - |___|___|___| - |___|___|___| - |___|___|___|___|

DON'T KNOW	d	GO TO BL2C
REFUSED	r	GO TO BL2C

IF BL2A = ANSWERED

BL2b. What type of phone number is this?

CODE ONE ONLY

HOME PHONE	1
OFFICE PHONE	2
HOME AND OFFICE PHONE	3
CELL PHONE	4
PAGER	5
COMPUTER/FAX LINE	6
OTHER	7
DON'T KNOW	d
REFUSED	r

[IF BL2B = 2] AND [DEMONSTRATION = KENTUCKY, NEVADA, OR VIRGINIA]

BL2c. May we send text messages to your cell phone regarding the second interview?

YES 1
NO 0
DON'T KNOW ..... d
REFUSED ..... r

[BL2 =1, 2, 3, D OR R] OR [BL2A = D OR R]

BL2d. Do you have an email address where we can try to reach you?

YES 1
NO ..... 0 GO TO BL3
DON'T KNOW ..... d GO TO BL3
REFUSED ..... r GO TO BL3

BL2D = 1

BL2e. What is the email address where we can reach you?

_____
EMAIL ADDRESS

DON'T KNOW ..... d
REFUSED ..... r

BL2E = ANSWERED

BL2f. What type of email address is this? Is this a home email, office email, or something else?

CODE ONE ONLY

HOME EMAIL 1
OFFICE EMAIL 2
HOME AND OFFICE EMAIL 3
OTHER 4

ALL

BL3. In case we have trouble reaching you in 12 months, please give me the names and telephone numbers of two relatives or friends who would know where you could be reached. These should be relatives or friends not currently living in your household. Let's start with one friend or relative. What is his or her name?

[BE SURE TO VERIFY SPELLING]

_____
FIRST NAME

_____
LAST NAME

DON'T KNOW ..... d GO TO END

REFUSED ..... r GO TO END

IF BL3 FIRST NAME = ANSWERED OR
IF BL3 LAST NAME = ANSWERED

BL3a. What is the telephone number we should try?

|___|___|___| - |___|___|___| - |___|___|___| - |___|___|___|___|

DON'T KNOW ..... d

REFUSED ..... r

IF BL3 FIRST NAME = ANSWERED OR
IF BL3 LAST NAME = ANSWERED

FILL = FIRST NAME FROM BL3
IF BL3 = D, FILL "this person"

BL3b. And what is [FIRST NAME FROM BL3/this person]'s relationship to you?

_____
RELATIONSHIP

DON'T KNOW ..... d

REFUSED ..... r

BL2 = 1, 2, 3, OR BL3A PHONE NUMBER ANSWERED

BL4. How about a second friend or relative? What is his or her name?

[BE SURE TO VERIFY SPELLING]

_____
FIRST NAME

_____
LAST NAME

DON'T KNOW ..... d

REFUSED ..... r GO TO END

BL4 FIRST NAME = ANSWERED
BL4 LAST NAME = ANSWERED

BL4a. What is this person's telephone number, beginning with the area code?

|___|___|___| - |___|___|___| - |___|___|___| - |___|___|___|___|

DON'T KNOW ..... d

REFUSED ..... r

BL4 FIRST NAME = ANSWERED
BL4 LAST NAME = ANSWERED

FILL= FIRST NAME FROM BL4
IF BL4 = D, FILL "this person"

BL4b. And what is [FIRST NAME FROM BL4/this person]'s relationship to you?

_____
RELATIONSHIP

DON'T KNOW ..... d

REFUSED ..... r

ALL

IF BL2 NE 9: We look forward to speaking with you again in 12 months.

END. Thank you again for your help and have a good day/evening. [We look forward to speaking with you again in 12 months.]

APPENDIX C

SUPPLEMENTAL DATA EXHIBITS

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EXHIBITS

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Exhibit C.1. Final baseline survey response rates by treatment group

Demonstration project	Total number of eligible cases	Response rate of all cases (%)	Number of treatment cases	Response rate of treatment group (%)	Number of control cases	Response rate of control group (%)
Chickasaw Nation	2,879	62.0	1,350	64.8	1,529	59.7
Virginia	2,618	61.5	1,390	62.2	1,228	60.8

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Response rates calculated by Mathematica Policy Research using AAPOR response rate 4 (AAPOR 2016).

Note: See round 1 CONSORT Flow Diagrams in Appendix A, Exhibit A.3 for additional details. The responding households in Kentucky and Nevada were randomized after completing the baseline survey.

AAPOR = American Association for Public Opinion Research.

Exhibit C.2. Food security at baseline for households in Chickasaw Nation

	Treatment	Control	Significance level
Children			
Secure	61.7	64.7	
Insecure	38.3	35.3	
VLFS	2.5	2.9	
Adults			
Secure	50.8	54.7	*
Insecure	49.2	45.3	*
VLFS	25.3	24.3	
Households			
Secure	45.1	49.6	*
Insecure	54.9	50.4	*
VLFS	25.3	24.6	
Sample size	**1,339**	**1,518**	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: VLFS is a subcategory within food insecurity but shown separately for descriptive purposes. Significance tests were calculated as the difference between the treatment and control groups for each food security category displayed.

* Difference between groups is significant at the 0.05 level.

VLFS = Very low food security.

Exhibit C.3. Food security at baseline for households in Kentucky

	Treatment	Control	Significance level
Children			
Secure	63.3	63.1	
Insecure	36.7	36.9	
VLFS	3.3	4.5	
Adults			
Secure	44.1	43.3	
Insecure	55.9	56.7	
VLFS	31.8	34.0	
Households			
Secure	41.6	40.5	
Insecure	58.4	59.5	
VLFS	32.1	34.5	
Sample size	**1,100**	**1,094**	

Source Evaluation of Demonstration Projects to End Childhood Hunger, 2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: VLFS is a subcategory within food insecurity but shown separately for descriptive purposes. Significance tests were calculated as the difference between the treatment and control groups for each food security category displayed. None of the differences between the treatment and control groups is statistically significant.

VLFS = Very low food security.

Exhibit C.4. Food security at baseline for households in Nevada

	Treatment group #1 (SNAP benefits)	Treatment group #2 (SNAP benefits plus case management/ nutrition education)	Control group	Significance level
Children				
Secure	65.5	65.5	65.4	
Insecure	34.5	34.5	34.6	
VLFS	5.5	5.7	5.4	
Adults				
Secure	48.4	47.5	48.4	
Insecure	51.6	52.5	51.6	
VLFS	23.0	22.2	21.5	
Households				
Secure	44.4	43.2	45.4	
Insecure	55.6	56.8	54.6	
VLFS	24.0	23.2	22.2	
Sample size	**980**	**988**	**1,114**	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2015–2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: VLFS is a subcategory within food insecurity but shown separately for descriptive purposes. Significance tests were calculated as the difference between the treatment (T1, T2) and control groups for each food security category displayed. None of the differences between the treatment and control groups is statistically significant.

C = control; SNAP = Supplemental Nutrition Assistance Program; T = treatment; VLFS = Very low food security.

Exhibit C.5. Food security at baseline for households in Virginia

	Treatment	Control	Significance level
Children			
Secure	79.3	77.1	
Insecure	20.7	22.9	
VLFS	2.3	2.6	
Adults			
Secure	69.0	67.6	
Insecure	31.0	32.4	
VLFS	15.8	14.5	
Households			
Secure	66.6	64.0	
Insecure	33.4	36.0	
VLFS	15.9	15.3	
Sample size	**1,376**	**1,215**	

Source: Evaluation of Demonstration Projects to End Childhood Hunger, 2016 baseline survey. Tabulations prepared by Mathematica Policy Research.

Note: VLFS is a subcategory within food insecurity but shown separately for descriptive purposes. Significance tests were calculated as the difference between the treatment and control groups for each food security category displayed. None of the differences between the treatment and control groups is statistically significant.

VLFS = Very low food security.

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