



**Welcome to  
“Findings from the Nutrition Services  
Program Process Study and Meal Cost  
Analysis”**

Presenters: Holly Greuling, Susan Jenkins, James Mabli and Jessica Ziegler

Facilitator: Magda Hageman

*The webinar will begin at 3:30 p.m. Eastern Daylight Time*

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**Administration for Community Living Team**

**Holly Greuling, RD  
Susan Jenkins, PhD**

## **Findings from the AOA Nutrition Programs Process Study and Meal Cost Analysis**

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**National Evaluation Results Webinar**  
**The National Resource Center on Nutrition and Aging**

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**September 24, 2015**

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James Mabli • Jessica Ziegler • Rhoda Cohen •  
 Erin Panzarella • Mindy Hu

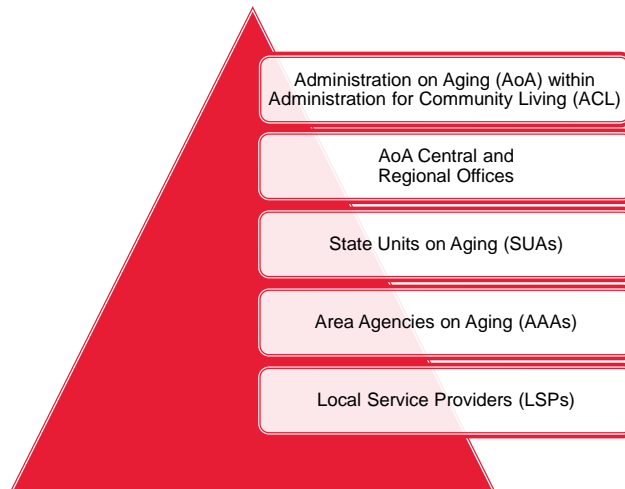
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## **Title III-C Nutrition Services Program (AOA Nutrition Programs)**

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- Adequate nutrition is critical for people of all ages, but especially important for older adults
- Title III-C Nutrition Services Program (AOA Nutrition Programs) plays a vital role in ensuring needs of older adults are met
- Nutrition services
  - Congregate and home-delivered meals
  - Nutrition screening, assessment, education and counseling
- Other types of services
  - Health promotion
  - Medical screening
  - Social or recreational activities

## Administration of AOA Nutrition Programs



## Overview of AOA Nutrition Programs

- **Funding and administration**
  - ACL awards grants to SUAs based on share of population aged 60 and older
  - AAAs administer programs within planning and service area (PSAs)
  - AAAs award grants/contracts to LSPs to provide services
  - Other funding (e.g., in-kind and participant contributions, and donations)
  - Congregate meals and services provided at LSP meal sites; home-delivered meals provided to homebound clients by meal sites, central kitchens, or other organizations
- **Target population**
  - People aged 60 and older and their spouses of any age
  - Those with greatest economic or social need
  - Low-income, minority, rural, limited English proficiency, at risk of institutionalization
- **Program services**
  - Congregate/home-delivered meals that comply with Federal nutrition standards
  - Nutrition screening, education, assessment, and counseling services

## **AOA Nutrition Programs Evaluation Objectives**

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### **1. Process study**

- Provide information to support program planning
- Analyze program structure, administration, staffing, coordination, processes, and service delivery

### **2. Cost study**

- Estimate the average cost of a congregate and a home-delivered meal
- Assess variation in costs by select characteristics of local providers
- Provide information to make funding decisions

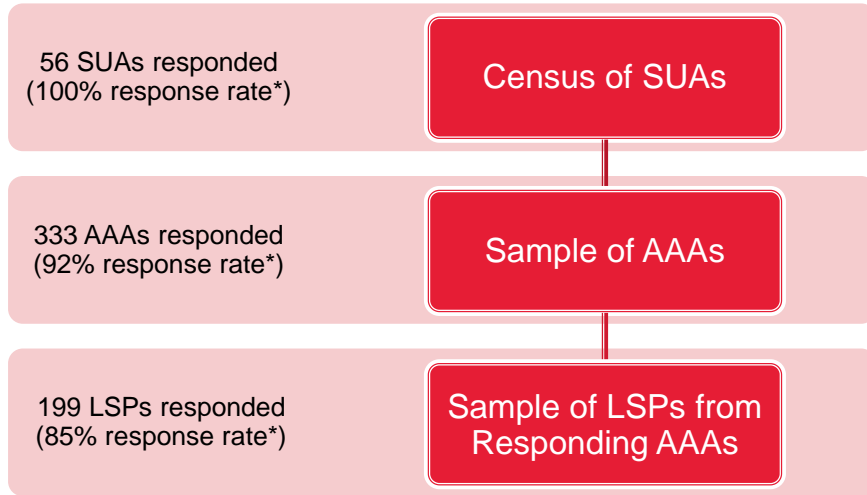
### **3. Client outcomes study (ongoing)**

- Assess program effectiveness using a variety of outcomes:
  - Diet quality based on 24-hour dietary recall
  - Food security, socialization, longer-term health and institutionalization

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## **Process Study**

## Study Design



\*Response rate for web surveys; agencies also received fax-back surveys

## Survey Topic Areas



## Analysis Methods

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- **Descriptive analysis: percentages, means, and medians**
- **Grouping agencies together**
  - Statistics for SUAs include SUAs that also function as AAAs, where possible
  - Statistics for AAAs include AAAs that also function as LSPs, where possible
- **Analysis weights**
  - **Weights not needed for SUA analysis**
  - **Weights used for AAA and LSP analyses**
    - Based on weighted data, the AAA and LSP findings are nationally-representative of population of AAAs and LSPs
- **Study limitations**
  - **Sampling error**
  - **Item nonresponse**

## Organizational Structure of National Aging Network

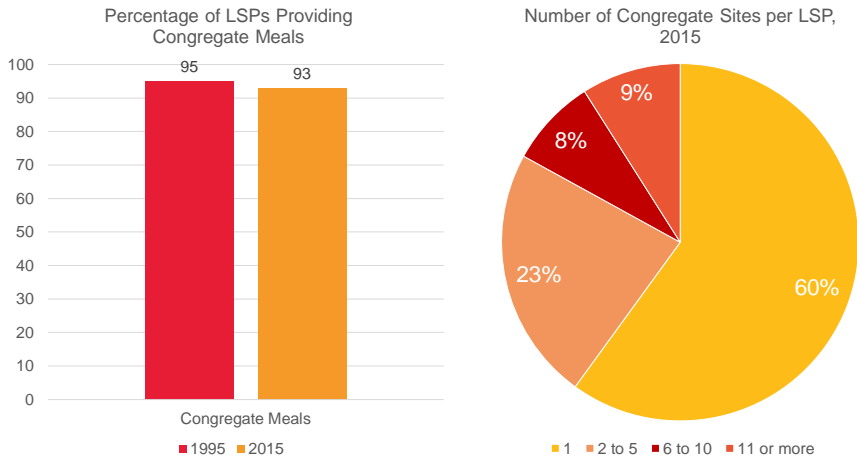
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- **SUAs**
  - **56 SUAs: one in 50 States, DC, and 5 territories**
  - **SUAs oversee a median of 12 AAAs, with a low of 1 and high of 59**
  - **80 percent have a Nutrition Program Administrator (NPA)**
    - For many agencies, this is a registered dietitian or state-credentialed nutrition professional
- **AAAs**
  - **629 AAAs in Title III-C NSP, down from 668 in 1995**
  - **62 percent are public organizations**
  - **Provide nutrition services to an average of 2,561 people per year (congregate nutrition) and 1,376 people per year (home-delivered)**
- **LSPs**
  - **61 percent are private, nonprofit agencies, similar to 1995**
  - **Provide nutrition services to an average of 942 people per year (congregate nutrition) and 443 people per year (home-delivered)**

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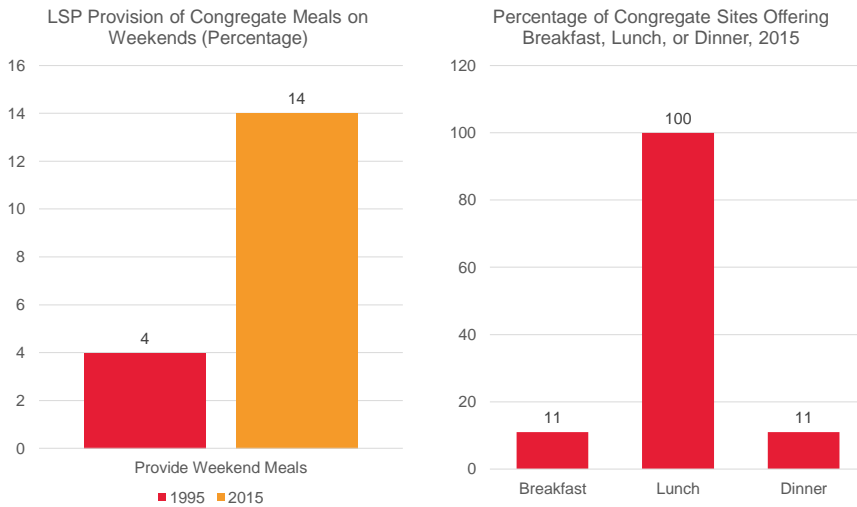
Source: SUA survey; AAA survey and LSP survey, weighted data; Tables III.1, III.2, and III.3.

## Congregate Meal Program Characteristics



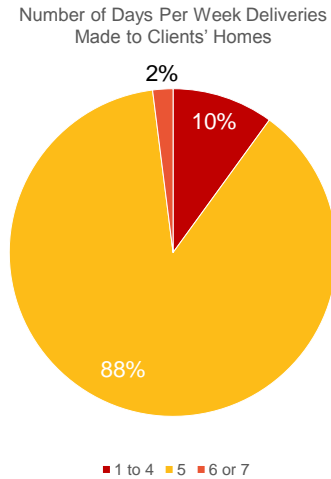
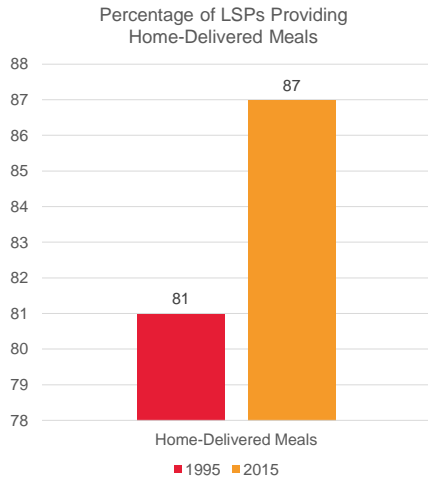
Source: LSP survey, weighted data, Tables III.7 and III.8.

## Congregate Meal Program Characteristics



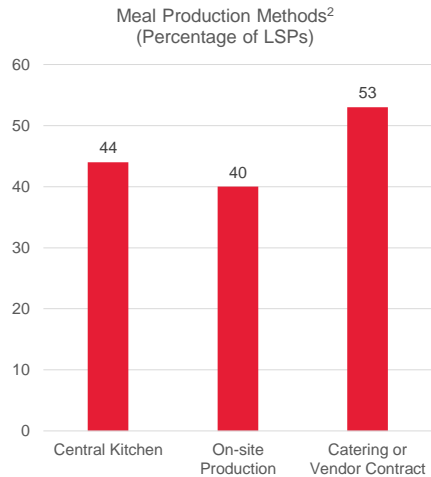
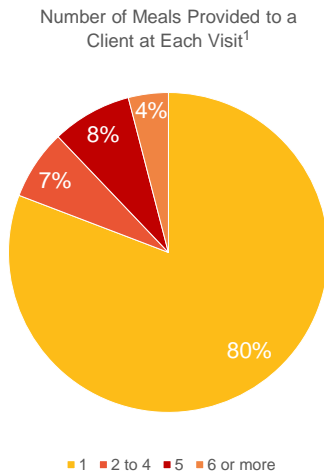
Source: LSP survey, weighted data, Tables III.7 and III.8.

## Home-Delivered Meal Program Characteristics



Source: LSP survey, weighted data, Tables III.7 and III.11.

## Home-Delivered Meal Program Characteristics



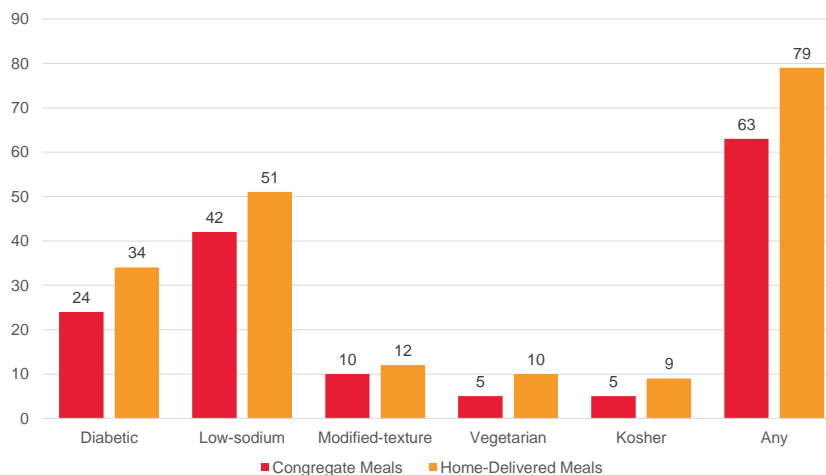
Source: LSP survey, weighted data, Tables III.11 and III.12.

<sup>1</sup> Percentages do not sum to 100 due to rounding.

<sup>2</sup> Multiple answers allowed



## Percentage of LSPs that Offer Special or Therapeutic Diets



Source: LSP survey, weighted data, Tables III.10 and III.12.

## Other Nutrition and Non-Nutrition Services

- **Nutrition services provided by LSPs**

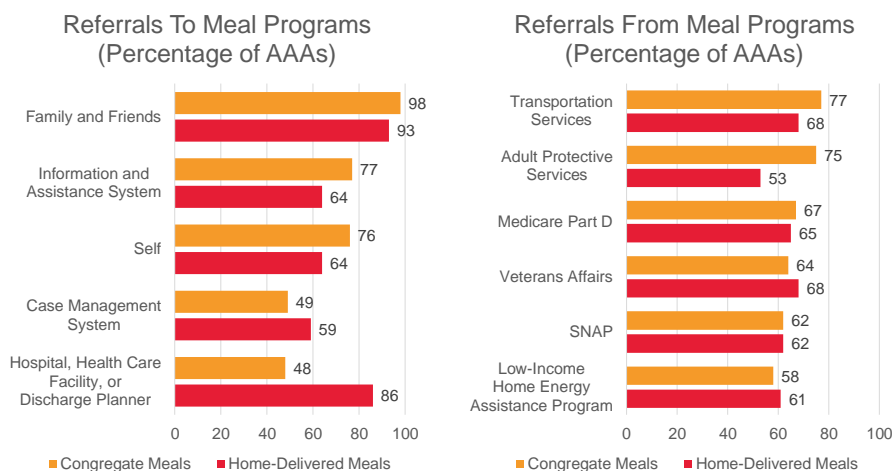
- Nutrition education (77 percent)
- Nutrition screening and assessment (52 percent)
- Nutrition counseling (28 percent)

- **Non-nutrition services**

- Transportation to and from meal sites (76 percent)
- Health promotion and disease prevention activities (63 percent)
- Social activities (62 percent)
- Case management (53 percent)
- Assistance with chores or housekeeping (34 percent)
- Grocery assistance (28 percent)

Source: LSP survey, weighted data, Table III.7.

## Clients' Referrals to and From Congregate and Home-Delivered Meal Programs



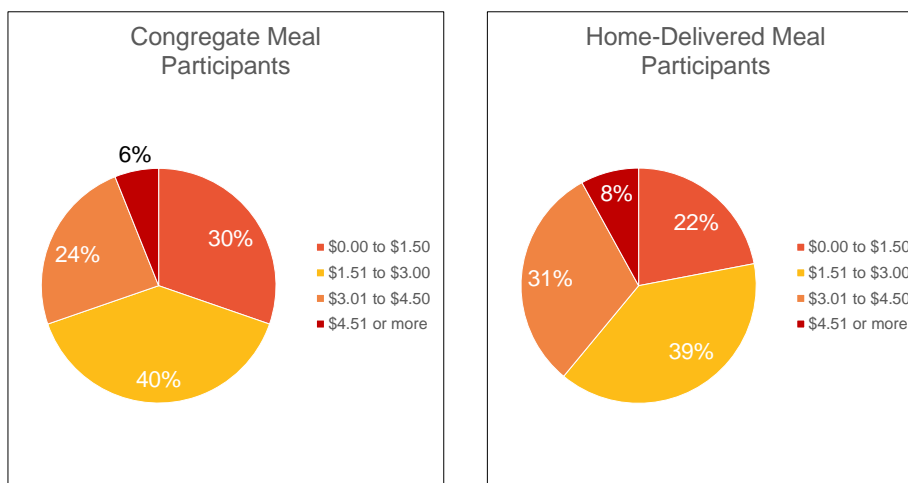
Source: AAA survey, weighted data, Tables III.20, III.21, and III.22.

## Quality of Program Services Provided

- **AAAs use variety of methods to ensure quality of nutrition education**
  - 58 percent of AAAs require credentialed nutrition professional to conduct education
  - 45 percent of AAAs conduct survey of program participant needs and use of evidence-based education programs
  - 68 percent use curricula from a reliable, science-based organization
- **Nearly all (96 percent) AAAs and LSPs require service personnel to have food safety and sanitation training**
- **Reported instances of food-borne illness are very rare**
  - 5 incidents total in past three years across all 333 AAAs in sample

Source: LSP survey, AAA survey, weighted data, Tables III.32 and III.33.

## LSP Recommended Participant Contributions



Source: LSP survey, weighted data, Table III.41. Percentages may not sum to 100 due to rounding. Meal contributions are voluntary.

## Program Process Study Takeaways

- **AoA nutrition programs provide a continuum of nutrition services, in addition to meals, to participants. This includes nutrition screening, assessment, education, and counseling.**
- **AoA nutrition programs are closely linked to other parts of the nation's home- and community-based care system through cross-referrals and coordination of service delivery**
- **From 1995 to 2015:**
  - LSPs congregate meal provision has decreased slightly and home-delivered meal provision has increased
  - There has been an expansion in weekend meals by congregate meal providers
  - There has been an increase in the percentage of congregate meal and home-delivered meal providers that make “modified” meals available (e.g., low in fat, sodium, calories)

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## Meal Cost Analysis

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## Meal Cost Analysis Objectives

- Answer two key research questions:
  1. What is the average cost of a congregate and home-delivered meal provided under the AOA Nutrition Programs?
  2. Do these average costs vary by how meals are prepared or by other program characteristics?
- Enable providers to assess their own total costs for meals relative to similar providers
- Provide ACL with information about the cost effectiveness of meal preparation and service approaches

## Meal Cost Analysis Sample

Collected LSP-level data from 103 LSPs that:

- Completed the LSP survey
- Provided information about their congregate and home-delivery distribution meal sites

1 congregate meal site from each of the 98 LSPs with a congregate meal program

1 home-delivery distribution site from each of the 94 LSPs with a home-delivered meal program

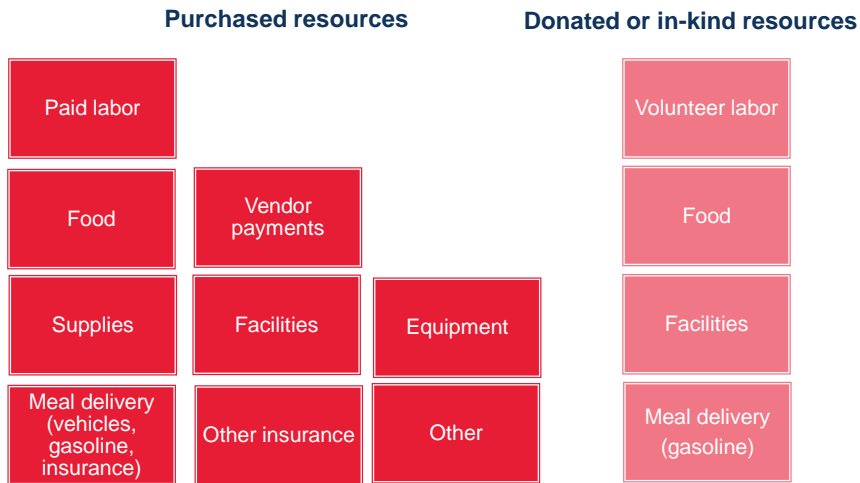
1 home-delivery route from each home-delivery distribution site

Final sample included LSPs (1) that used various meal preparation methods; (2) from different geographic regions; (3) served rural, suburban, and urban areas; and (4) that were both large and small

## Meal Cost Analysis Methods

- Used a three-step “build up” approach:
  1. Identified a standard set of resources used to prepare, serve, and deliver meals (includes donated or in-kind resources)
  2. Collected data from each LSP on the cost of each resource
    - Most data collected at the LSP-level
    - Some data collected at the selected meal site- and route-levels
  3. Calculated, or “built up,” weighted estimates of the average cost of a congregate and a home-delivered meal
- Compared costs over time
- Analyzed costs by program characteristics

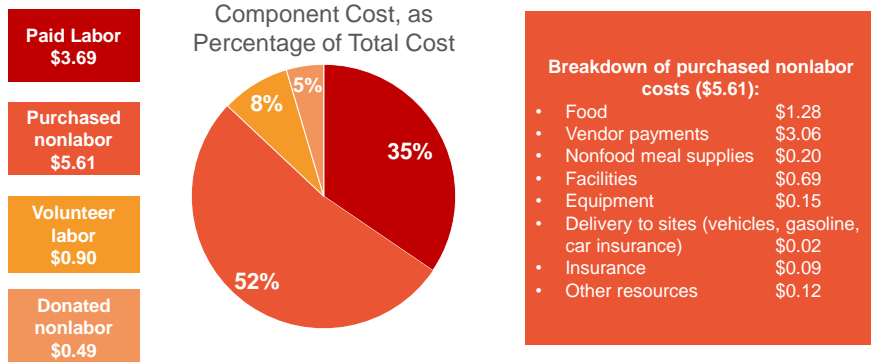
## Resources Used to Prepare, Serve, and Deliver Meals



## Average Total Meal Cost: Congregate Meal

**Average *total* cost: \$10.69**

**Average *paid* cost: \$9.30**

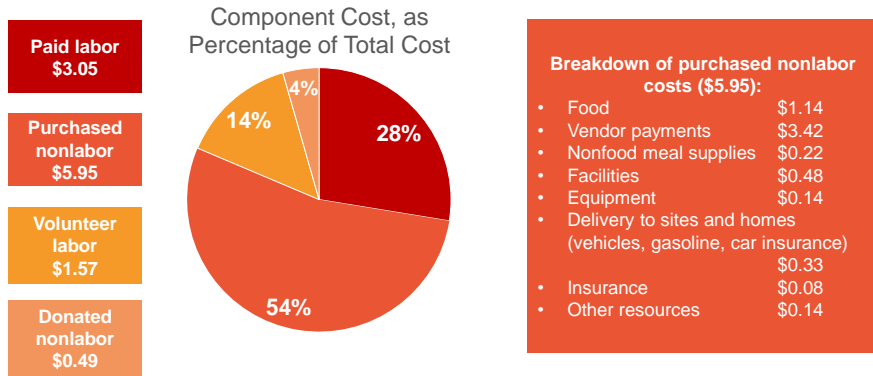


Source: AOA Nutrition Programs Evaluation meal cost analysis, Table II.1 and Figure II.1. Weighted data.

## Average Total Meal Cost: Home-Delivered Meal

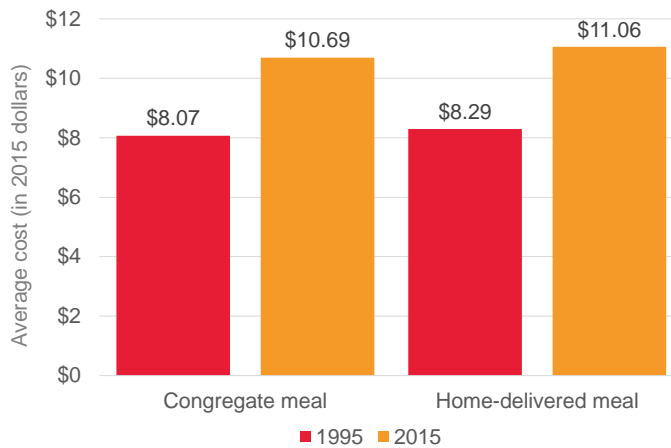
Average *total* cost: \$11.06

Average *paid* cost: \$9.00



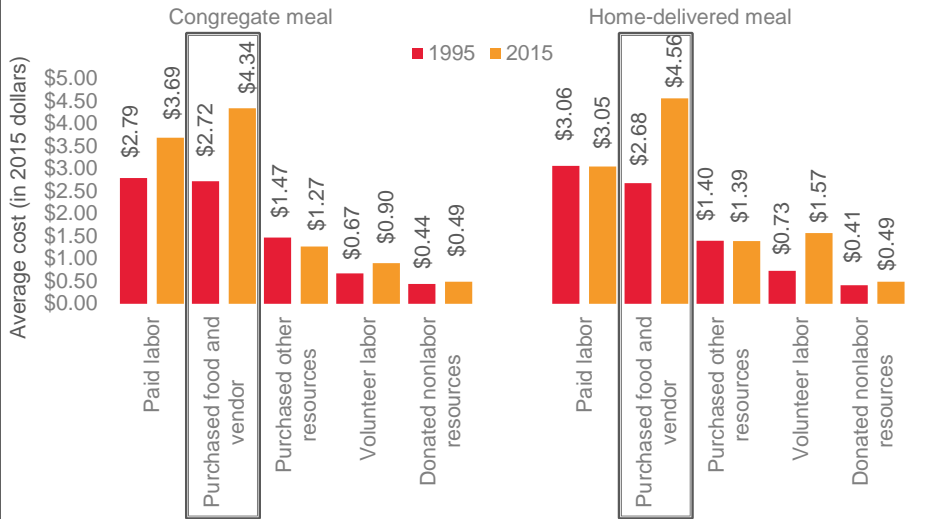
Source: AOA Nutrition Programs Evaluation meal cost analysis Table II.1 and Figure II.1. Weighted data.

## Changes in Average Total Meal Costs Over Time



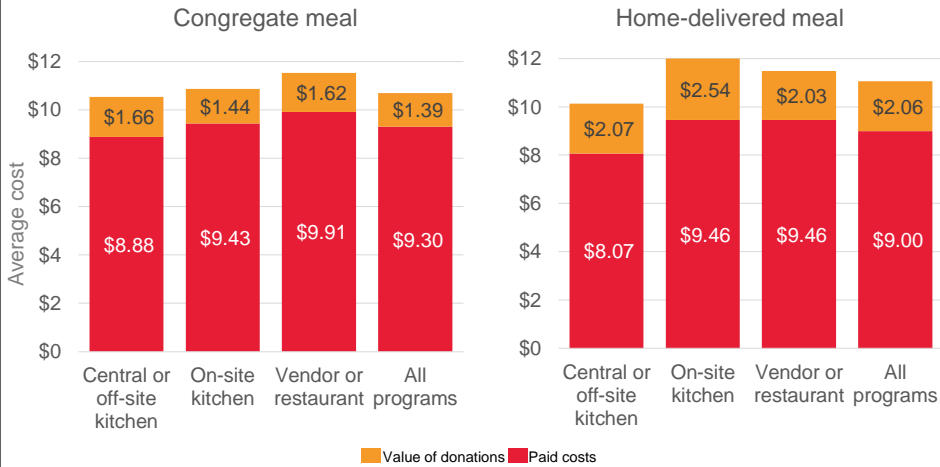
Source: AOA Nutrition Programs Evaluation meal cost analysis, Table II.2; Ponza et al. (data collected in 1995, reported in 1996). Weighted data. Adjusted to 2015 dollars.

## Average Total Meal Cost, 1995 and 2015



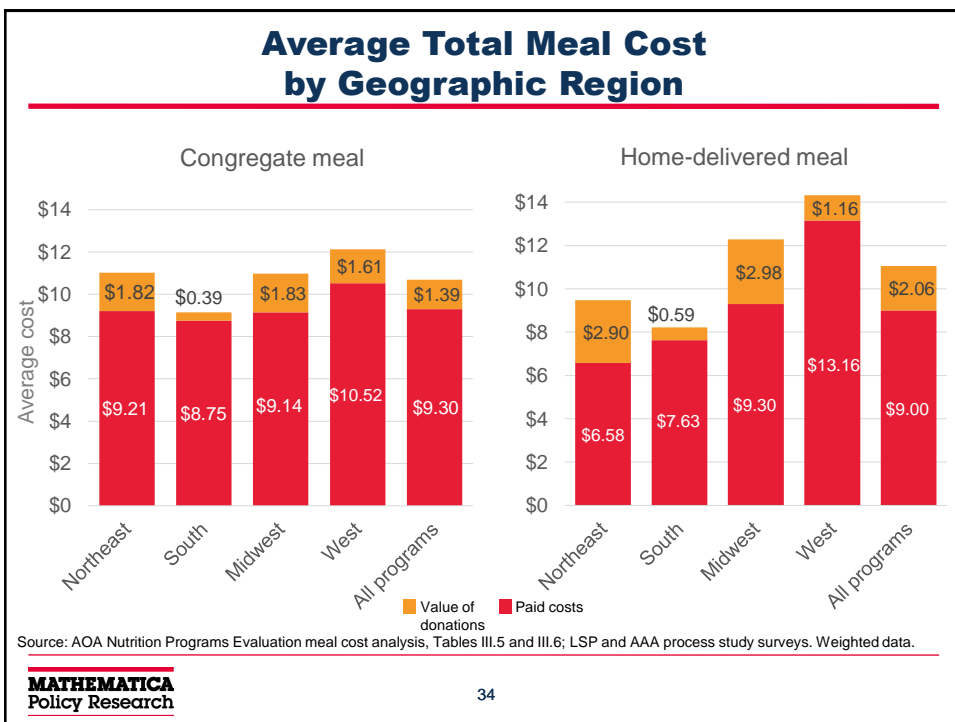
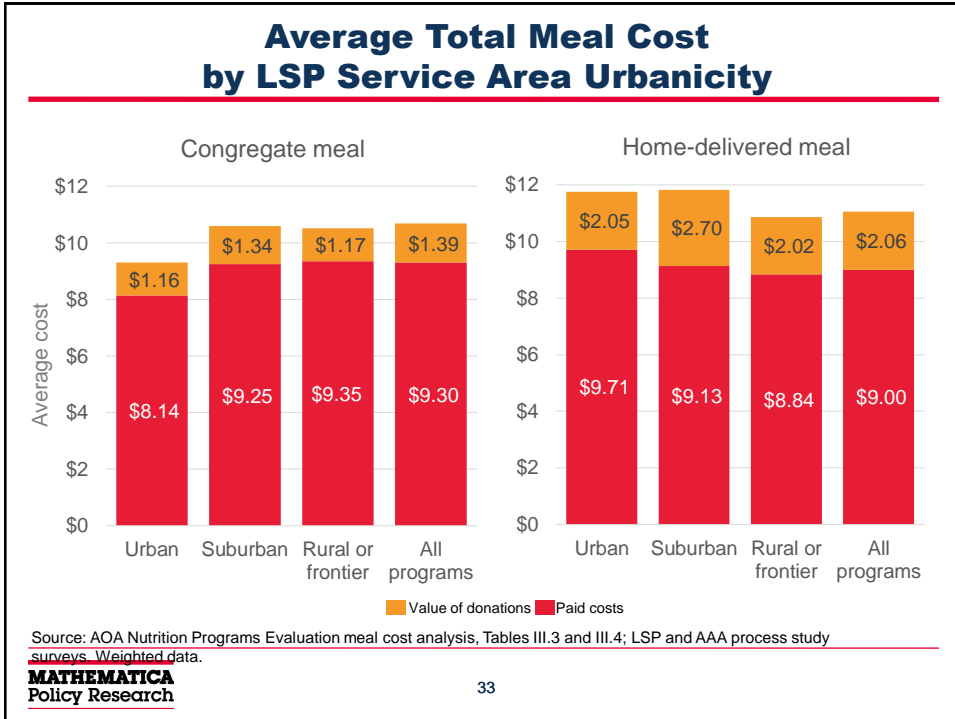
Source: AOA Nutrition Programs Evaluation meal cost analysis, Table II.2; Ponza et al. (data collected in 1995, reported in 1996). Weighted data. 2015 dollars.

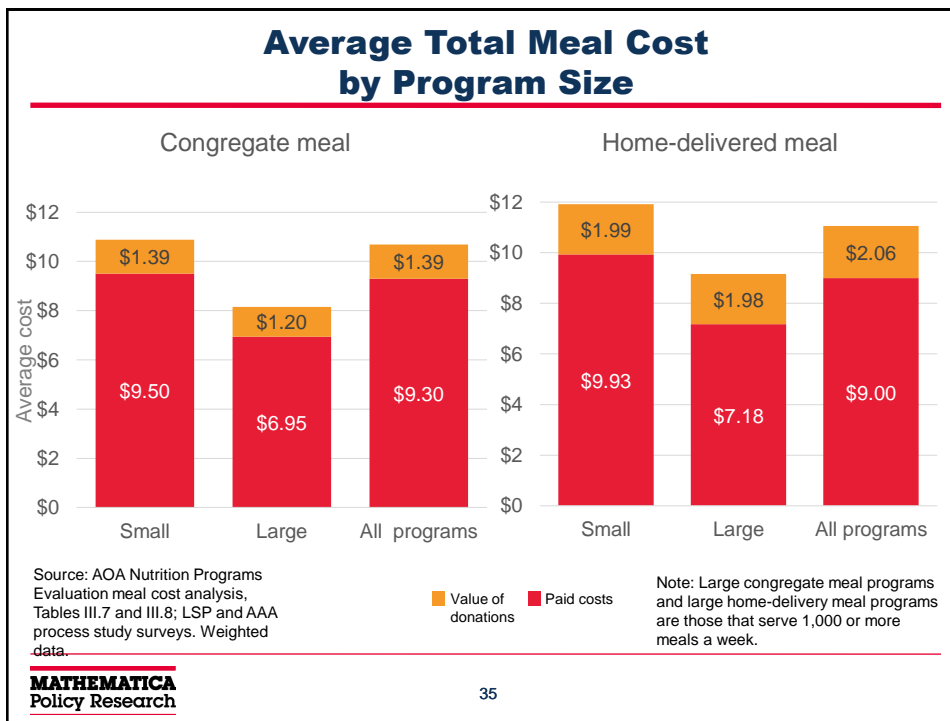
## Average Total Meal Cost by Meal Production Method



Source: AOA Nutrition Programs Evaluation meal cost analysis, Tables III.1 and III.2; LSP and AAA process study surveys. Weighted data.







## Meal Cost Analysis Takeaways

- AOA Nutrition Programs total meal costs have risen since 1995, in large part due to a rise in food costs
- Program characteristics that appeared to have lower costs in 1995 still appear most cost-effective:
  - Central or off-site kitchen prepared meals cost less than other methods
  - Meals in southern region have lowest cost, and meals in western region have highest cost
  - Meals produced in large programs cost less than those produced in small programs
  - Congregate meals cost less in urban service areas, while home-delivered meals cost less in rural service areas

Note: 1995 data collected by Ponza et al. in 1995, but reported in 1996.

## For More Information

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## Thank you!

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Mathematica extends our sincerest thank you to all of the SUA, AAA, and LSP staff that completed study surveys and provided data for the meal cost analysis.