# Time and Temperature Control of Foods in the Summer Food Service Program

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## Introduction and Purpose

- In 2015, the Summer Food Service Program (SFSP) provided 164 million meals and snacks
- Complex SFSP operational conditions could increase food safety risks:
  - Diverse cooking sites
  - Diverse, including outdoor, service sites
  - Transportation from preparation to serving sites
  - Higher ambient temperatures during meal service hours
- This research examines the effectiveness of current TCS food safety practices in the SFSP

## Methodology

- A total of 28 SFSP sites was observed, four in each USDAFNS region in July and August, 2015 (Fig. 1)
- Practices utilized to control temperatures throughout the day of service were observed

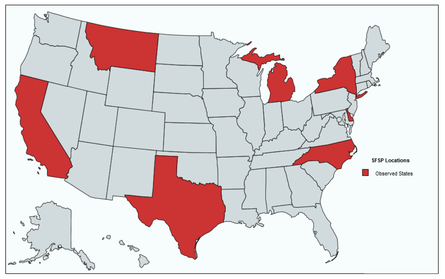


Fig.1 Observation sites by state

- Data loggers were utilized to capture the temperature of foods just after preparation through service

*http://cnsafefood.ksu.edu/*
*http:www.theicn.org/*

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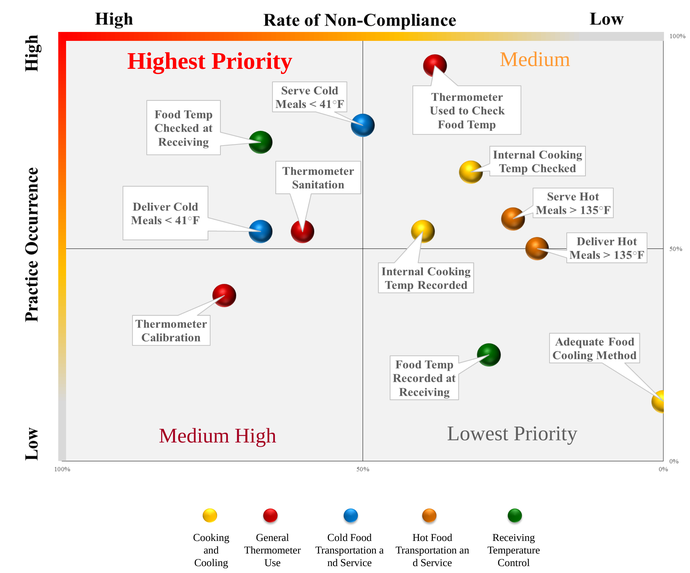
## Results

- Cooking, Cooling, and Thermometer Use Practices
  - Most Common: checking internal cooking temperatures (68%), and checking end-point cooking temperatures (62%)
  - Least Common: proper cleaning and sanitizing of thermometers (40%), and thermometer: calibration (27%)
- Transportation and Serving Practices
  - Most Common: delivering hot meals at proper temperatures (79%), and checking food temperatures at delivery (50%)
  - Least Common: recording food temperatures at delivery (31%), and using refrigerated trucks (16%)
- Lunch Food Temperatures
  - Average Time in Temperature Danger Zone
    - Hot Foods ‹ 135°F for 45 minutes
    - Cold Foods › 41°F for 90 minutes
    - Hot foods more often served at the correct temperatures (75%), than cold foods (50%).
  - Only one item did not meet Food Code 2013 requirements
- Suggested Training Priorities
  - High: cold food transport and service, checking food temperatures at receiving, thermometer sanitation
  - Medium High: thermometer calibration
  - Medium: hot food transportation and service, cooking and cooling practices, thermometer to check food temperatures
  - Lowest: adequate cooling methods, recording food temperature at receiving (Fig. 2)

## Results, Continued

Fig.2. Matrix plot of practice occurrence rate and the rate of non-compliance. Practices exhibiting both high occurrence and high non-compliance are high priority for training.




## Applications

The USDA's goal to increase the number of meals served in the SFSP requires increasing staff capacity; targeted food safety training is needed. Based on the findings of this study training should focused on:

- Delivery and service of cold foods; they are particularly vulnerable to higher temperatures
- Monitoring and recording food temperatures at receiving
- Thermometer cleaning, sanitizing, and calibration