

# Assessment of Food Safety in Temporary Foodservice Establishments at Louisiana Fairs and Festivals

Valerie Salter, MHA

## Introduction

### Background

- Temporary food establishments are very popular in the United States and around the world.
- These establishments may be found in various venues, including fairs and festivals.
- Establishments are temporary sites; hence food storage, preparation, and service can be problematic (Chapman, 2008).

### Problem Statements

- Few studies have explored this sector of foodservice, no known research has been conducted on temporary foodservice establishments at fairs and festivals in Louisiana.
- Because of popularity amongst consumers, studies are needed to assess food safety in temporary foodservice establishments (Shumaker et al., 2019).
- Research has shown food safety violations occur in foodservice establishments, research is needed to assess food safety in temporary foodservice establishments at fairs and festivals which has hardly been explored.

### Purpose of the study

- The purpose of this study is to assess food safety at temporary foodservice establishments operating at Louisiana fairs and festivals.

### Objectives

1. To identify the top three critical and non-critical food safety violations in temporary foodservice establishments at the New Orleans Jazz and Heritage Festival.
2. To evaluate the top three critical and non-critical food safety violations in temporary foodservice establishments at the New Orleans Jazz and Heritage Festival.
3. To compare the top three critical and non-critical food safety violations based on operational characteristics.

## Methodology

- Secondary data was obtained from food safety inspection reports for inspections conducted at temporary foodservice establishments serving food at the New Orleans Jazz and Heritage Festival.
- New Orleans Jazz and Heritage Festival is the only festival in Louisiana that requires food safety inspections.
- Inspection reports were obtained from the Louisiana Department of Health.
- Food and beverage vendors participating in the festival in 2017, 2018, and 2019 were included in this study.
- There were 63 vendors in 2017 and 62 vendors in 2018 and 2019.

### Data Analysis

- Secondary data was manually compiled into an Excel spreadsheet, then imported into Statistical Package for Social Sciences (SPSS) version 27.0.
- Descriptive statistics (frequencies, counts, percentages) were used to analyze secondary data in SPSS.

## Results

### Critical Violations

- 2017
  - 34 (5.4%) vendors had inadequate hot food serving temperatures.
  - 31 (12.8%) vendors had inadequate cold food back up temperatures.
  - 21 (15.4%) vendors had inadequate cold food served temperatures.
- 2018
  - 73 (21.1%) vendors had inadequate cold food back up temperatures.
  - 38 (18.0%) vendors had inadequate cold food serving temperatures.
  - 26 (3.7%) vendors had inadequate hot food serving temperatures.
- 2019
  - 32 (7.1%) vendors had inadequate hot food serving temperatures.
  - 30 (19.5%) vendors had inadequate cold back up temperatures.
  - 24 (23.8%) vendors had inadequate cold food serving temperatures.

Anirudh Naig, Ph.D.

## Results Cont'd

### Non-Critical Violations

- 2017
  - 14 (5.1%) vendors in violation for issues with sanitizer concentration.
  - 13 (4.5%) vendors in violation for no hair/beard restraint.
  - 11 (4.1%) vendors in violation for issues with portable water bucket.
- 2018
  - 25 (7.1%) vendors in violation for no hair/beard restraints.
  - 15 (4.2%) vendors in violation for issues with sanitizer concentration.
  - 14 (5.0%) vendors in violation for issues with indicating thermometers.
- 2019
  - 18 (9.6%) vendors in violation for issues with sanitizer concentration.
  - 11 (7.1%) vendors in violation for product thermometer issues.
  - 7 (4.8%) vendors in violation for indicating thermometer issues.

## Conclusions

- Time and temperature management is a commonly observed issue.
- Specific critical violations: hot food serving temperatures, cold food serving temperatures, and cold food back up temperatures.
- Specific non-critical violations: sanitizer concentration issues, lack of employee hair/beard restraints, and issues with clean portable water buckets.

## Limitations & Future Research

### Limitations

- Few previous studies on food safety at temporary foodservice establishments at fairs and festivals.
- Lack of comparable studies.
- Limited access to data.
- Data was provided by the Louisiana Department of Health. Some data provided to primary investigator may have been missing or excluded.

### Future Research

- Future research should focus on food safety culture within individual temporary foodservice establishments, sanitarians presiding over temporary establishments, and the festival organization.

References are available upon request