# Food Rescue: Does it Work? 412 Food Rescue Effectiveness Research

#### Katie Greeno, Ph.D.

University of Pittsburgh - School of Social Work Kgreeno @pitt.edu

#### **EXECUTIVE SUMMARY**

**INTRODUCTION** 40 million Americans are food insecure, yet 40% of food in the United States is discarded in landfill, where it has negative environmental effects. Food gleaning programs have developed around the world to redistribute high quality food slated for disposal because the food does not meet the high cosmetic standards deemed necessary for sale or use. Millions of pounds of food have been redistributed.

Food rescue is only truly effective if the food is consumed once it is redistributed. Numerous obstacles to consumption are possible. Recipients may not like the food, may not know how to use the food, or may dislike using food that they perceive is of low quality, or that they did not choose themselves. Thus, satisfaction with the food is an important aspect of effectiveness. To date, no studies have examined satisfaction with re-distributed food, and no standardized instruments for measuring satisfaction with food rescue exist.

412 Food Rescue is a premier food gleaning organization working in the Pittsburgh region, and expanding to neighboring regions. We have conducted three studies in order to create a meaningful tool for measuring satisfaction with food rescue, and to deploy it to measure satisfaction with 412 Food Rescue.

**Study 1: Interviews**. 29 recipients of rescued food, living in Pittsburgh and Allegheny County Housing Authority communities, participated in small-group open-ended interviews. Interviews focused on satisfaction, food use, and potential barriers to food use. We learned that recipients are highly satisfied with the food, creative and skilled in its use, and that they report both budget relief and improved access to healthier food because of food rescue.

**Study 2: Questionnaire development**. Themes discovered in Study 1 were confirmed with local expert

stakeholders, who also contributed that food redistribution contributes to an enhanced sense of community in their locations. Next, survey questions were developed. Five items were taken from the USDA Food Insecurity Brief form; response choices were altered for these items so participants reported *change* due to food rescue (rather than level of food insecurity). Themes discovered in Study 1, and confirmed by expert opinion, were developed into 15 new survey items. 22 people participated in a "think aloud" protocol to finalize items and wording. 12 new items were added to the 5 USDA Food Insecurity Items in the final questionnaire.

#### Study 3: Satisfaction and Food Insecurity Survey.

313 people living in Pittsburgh and Allegheny County Housing Authority communities who regularly receive rescued food completed the survey. Respondents were generally able to answer all items. The 12 new items were examined for psychometrics, which were found to be strong (Cronbach's alpha greater than .9, one factor according to exploratory factor analysis). Based on the strong psychometrics, we can report satisfaction with confidence using this instrument.

Ninety percent (90%) of participants reported improved food security. In addition, participants report very high satisfaction with 412 Food Rescue. All respondents strongly agreed with the statement "I am satisfied with the food provided by 412 Food Rescue". 88% reported they consume nearly all of the food, 91% relief for their budget, and 86% report a higher quality diet.

**Conclusion**: These three studies confirm that 412 Food Rescue is successful in reducing food waste and food insecurity. They further indicate that satisfaction with rescued food is very high, and that receiving rescued food helps them with budget resources, and with access to healthy foods.

#### **Survey Questions**

#### Part 1

- I am satisfied with the food provided to me by 412 Food Rescue
- I am satisfied with the variety of food provided to me y 412 Food Rescue
- I use nearly all of the food I take from 412 Food Rescue
- I will try food provided by 412 Food Rescue even if I am not familiar with it
- It is easy for me to find out how to use food provided by 412 Food Rescue
  - o (techniques listed)
- Because of 412 Food Rescue I eat healthier food
- Food provided to me by 412 Food Rescue helps to make ends meet
- Because of 412 Food Rescue I get to make more choices about the types of food I each

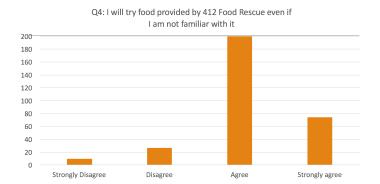
- Because of 412 Food Rescue I can put my money elsewhere (examples)
- I am less stressed because of 412 Food Rescue
- I am more connected with my community because of 412 Food Rescue
- The food delivered by 412 Food Rescue is distributed fairly

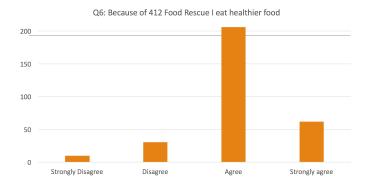
## <u>Part 2 - USDA Food Insecurity items with modified response choices</u>

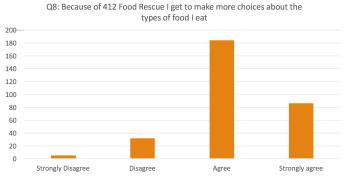
- The food I bought just didn't last, and I didn't have money to get more
- I couldn't afford to eat balanced meals
- I have cut the size of my meals or skipped meals because there wasn't enough money for food
- I ate less than I felt I should because there wasn't enough money for food
- I was hungry but didn't eat because there wasn't enough food

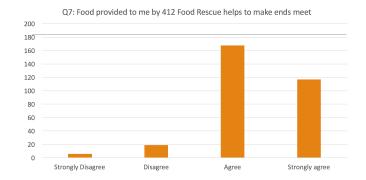
#### Survey Results - Select Responses

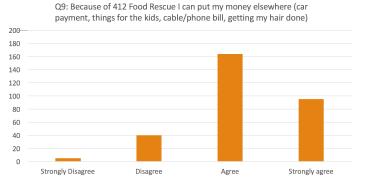




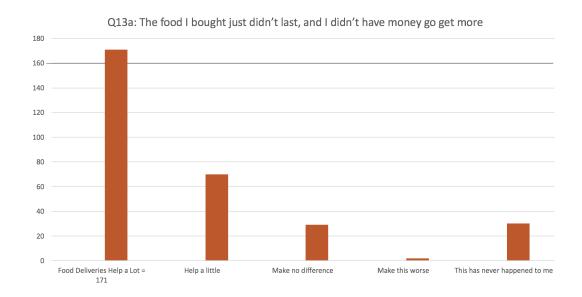


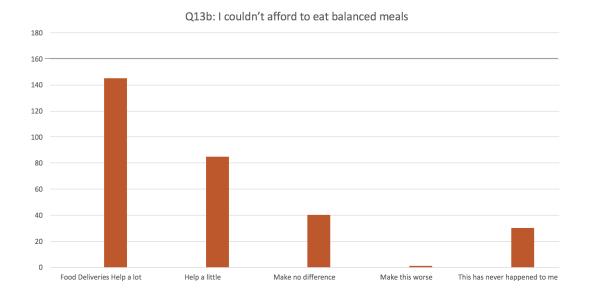




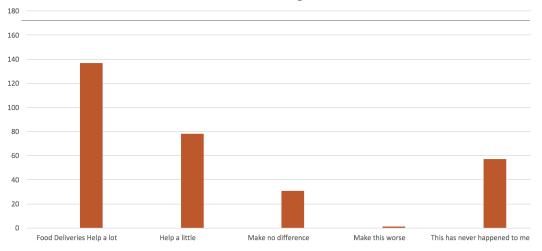


### **USDA Food Insecurity Questions**

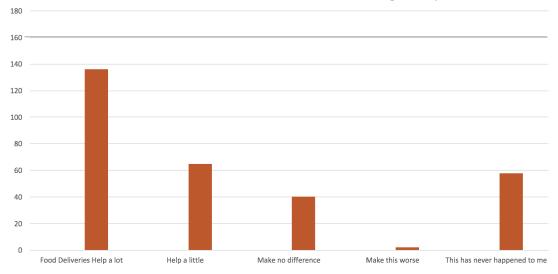




Q13c: I have cut the size of my meals or skipped meals because there wasn't enough food



Q13d: I ate less than I felt I should because there wasn't enough money for food



Q13e: I was hungry but didn't eat because there wasn't enough food

