

## A Human Factors Analysis of Work in Food Pantries: A Case Study of Two Local Pantries

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Higgins, Nicholas A.; Vanderhill, Danielle S.; Pierre, Keshia D.; DaCruz, Jeremy; Fraulini, Nicholas W.; and Talone, Andrew B., "A Human Factors Analysis of Work in Food Pantries: A Case Study of Two Local Pantries" (2016). *Human Factors and Applied Psychology Student Conference*. 14.  
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**Presenter Information**

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A Case Study of Two Local Pantries

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**ABSTRACT**

The goal of the present study was to investigate the work environment and main work processes in two small food pantries from a human factors perspective. Current research on enhancing food pantries in general is very limited, especially with a focus on human factors improvements. This study specifically aimed to understand and evaluate food pantry design (i.e., the environment and workflow), potential physical demands on worker performance (e.g., heavy lifting), and cognitive components of human-machine interaction for main tasks (e.g., perceptual-motor skills, disuse or misuse of the equipment, mental workload, decision-making, and error-recovery strategies). Findings were then used to identify improvements for current procedures and optimize the work environment and worker performance (i.e., increased comfort and efficiency) for both pantries through the application of human factors principles.

The study was conducted over the course of six months. Across both locations, 37 workers were observed in total (16 volunteers and 1 supervisor, 18 student volunteers and 2 supervisors; respectively). Two investigators for each location observed daily tasks and procedures within the pantry and conducted interviews with the pantry supervisors using techniques of ethnography (c.f., Wimmer & Dominick, 2006) and task analysis (c.f., Mayhew, 1999). Interviews addressed which tasks were the most or least common, the easiest or most difficult to perform, any issues workers had in general or specifically with the equipment, and clarification of observation notes. Then a more in-depth analysis was conducted on what were determined to be the main tasks for each pantry (i.e., obtaining pantry items, organizing pantry items, distributing pantry items to clients).

Suggestions for enhancing the human-machine interaction (e.g., enhancing the interface used for inputting volunteer and food information) and work environment (e.g., reducing clutter) are provided. It should be noted that sustainable improvement may be difficult to implement in small food pantries given the often transitional nature of the workers. Additional investigations should be implemented to further support small non-profit organizations such as these where there is a great need.

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