

Facing Food Insecurity During COVID-19: The Emerging Case of Little Free Food Pantries

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Introduction

The COVID-19 pandemic created both a dramatic increase in the need for emergency food, as well as massive disruption to the established system of emergency food in the U.S. Little free food pantries, outdoor box-like structures containing, in most cases, dry goods appeared on the street level, first emerged around 2016 but appeared to spread quickly during the pandemic. These pantries were inspired by the little free neighborhood library concept that exists in many neighborhoods across the U.S. Amidst the pandemic, these little free food pantries grew as one innovative community response to food insecurity faced during COVID-19. Given their size, these little free pantries cannot stock the food and supplies needed to sustain a household long-term, but they offer an innovative, albeit untested, a mechanism to address emergency food needs at the community level.

Methods

Since there had been no studies of food pantries mitigating short-term food insecurity at a community level, there is no existing dataset to reference. We have developed exclusionary criteria to choose our sample size and finalized 2700 pantry data. Our exclusionary criteria include- proper description, image, no duplicate entries, verified address.

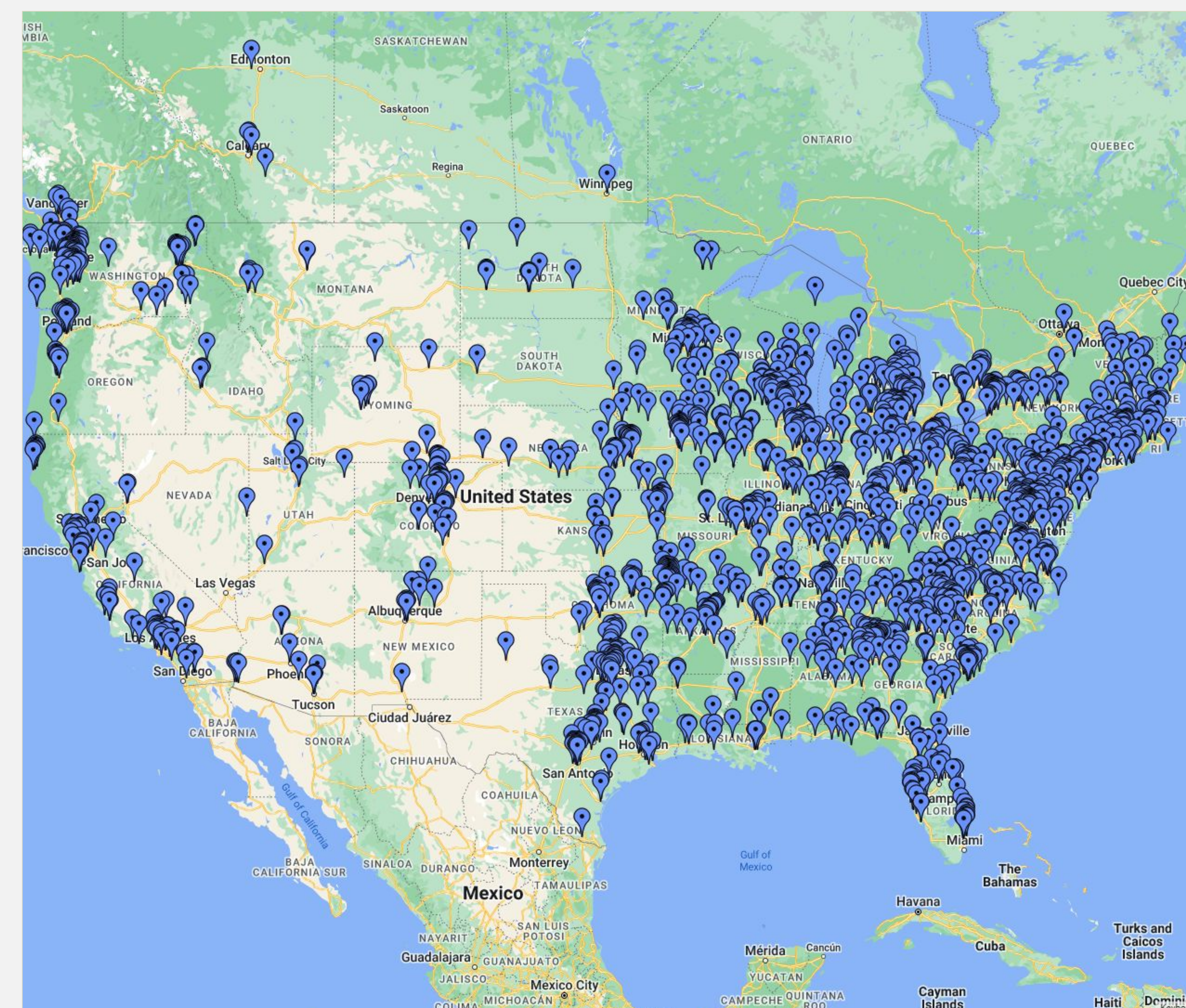
We are assessing the descriptive data based on a detailed rubric: Physical structure (i.e., stand-alone), Signage (i.e., food safety warning), Position in the built environment (i.e., public space), Governance org/management structure (i.e., NGO), Name of the structure (i.e., blessing box), Types of goods (i.e., shelf-stable), Additional resources/equipment (i.e., Fridge).

Results

We have collected over 2700 pantry data (Full Name, Type, Address, Description, Contact, Shipping Address, Latitude, Longitude, House Number, Street, Street Type, County, State, Zip Code, and Images). These data give us a keen understanding of the characteristics of the pantries throughout the fifty states. We scraped data over 3000 web pages. We have also installed pantries (Ram Pantry) on the VCU campus. To track the activities of Ram Pantry, we have developed artificial intelligence that tracks pantries opening and closing, which automatically sends the data to the cloud. The source code of the web scrapping and Ram Pantry intelligence can be found in our GitHub repository:

<https://github.com/Masrik-Dahir/Rampantry>

Our finalized result applies to geospatial applications (especially ArcGIS). We can build geoprocessing workflows with our pantry data.



Discussion

Minimal scholarly research has been published on this grassroots innovation to confront short-term food insecurity (CITE). Our research would present a descriptive analysis of these little free pantries to offer foundational knowledge on the phenomenon and support future research on the topic.

We seek to address the following descriptive questions for our future work: What are they called? What do they offer? What do they look like? Where are they built? Organized by whom? With what objectives? Once we have completed all the analyses, we will publish our paper in a reputable journal.

Work Cited

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