

# Reducing Food Insecurity in Kansas City, Missouri

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## Introduction

**Food insecurity:** Rooted in economic & geographic conditions  
**In Kansas City, MO:**



↑ risk of obesity and diabetes<sup>3</sup>  
 ↓ health  
 ↓ academic performance

1 in 8 children face hunger<sup>2</sup>

Current reliance on local food banks/pantries

Food waste leaves a major carbon footprint<sup>4</sup> → How can waste be avoided to meet the existing food insecurity needs?



"There is a large portion of individuals at the poverty line who have cars, homes, and jobs; however, they struggle to feed their families. Because of the stigma surrounding free soup kitchens, many families resort to eating unhealthy, quick meals."<sup>7</sup>

## Establish School Food Pantries

Start at 10 schools:

- Food distribution 2-3 times a week
- Provide key food categories
- Allow pre-ordering of groceries
- Direct pick up reduces transportation barriers

### Data Driven

- Allows food distribution networks to understand target areas and needs
- Data from Feeding America's Service Insights
- Name, age, diet, assistance program

### Pre-order Grocery Website

Advantages: Dignity of Choice and Privacy from ordering desired groceries at home.

Disadvantages: In Person Experience, Accessibility, Privacy

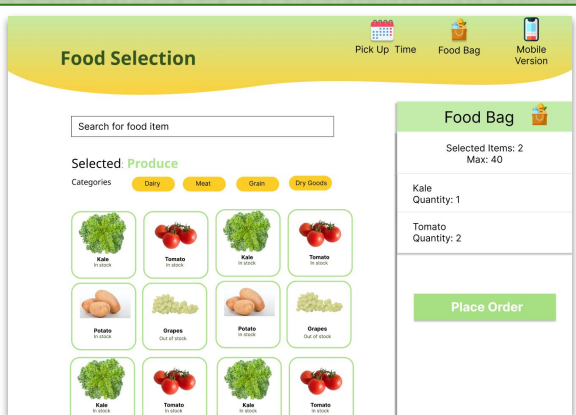


Fig 1. Mock Up of Pre-Order Grocery Website

## Feasibility: Funding and Food Sourcing

### FEDERAL PROGRAMS

- Local Food Purchase Assistance (LFPA) Program: supports local, disadvantaged farmers & producers
- TEFAP allows the USDA to buy and distribute food to food banks

### VOLUNTEERS & STAFFING

- Small team of administrators
- Majority of work will be done by volunteers which will reduce costs. Volunteers will be recruited from the study body and the community



### GRANTS

- Feeding America's Food Security Equity Impact Fund (<\$500,000)<sup>5</sup>
- Private grants (Walmart Foundation)
- Missouri Value-Added Agriculture "Farm to Table" Grant (<\$200,000)<sup>6</sup>

### DONATIONS

- Financial donations from organizations and individuals
- Other pantries receive 74.3% from Harvesters and 13.1% from food drives and grocery stores<sup>1</sup>

### Literature Cited

<sup>1</sup> Chikoma, D., McKelvey, B., Bennett, C., Carlos, Chavez, F., Hermsen, J., & Rikoon, S. (2022, June). Hunger & Food Assistance in the Heartland 2022: Harvesters. Retrieved April 14, 2023, from <https://www.harvesters.org/2022/06/hunger-and-food-assistance-in-the-heartland-2022/> • <sup>2</sup> Feeding America. (n.d.). Hunger in Missouri. Retrieved March 17, 2023, from <https://www.feedingamerica.org/hunger-in-missouri> • <sup>3</sup> Food and Nutrition Insecurity and Diabetes. (2022, August 21). Centers for Disease Control and Prevention. Retrieved May 9, 2023, from <https://www.cdc.gov/dnib/> • <sup>4</sup> Food Security Equity Impact Fund (n.d.). Feeding America. Retrieved March 19, 2023, from <https://www.feedingamerica.org/equity-impact-fund> • <sup>5</sup> Weaver, R. R., Vaughn, N. A., Henricks, S. P., McPherson-Myers, P. E., Jia, Q., Willis, S. L., & Rescigno, K. P. (2020). University student food insecurity and academic performance. *Journal of American College Health, 68*(7), 727-733. Retrieved March 26, 2023, from <https://doi.org/10.1080/07447029.2019.1646022> • <sup>6</sup> Garcia, S. P., Haddix, A., & Barnett, K. (2018). Incremental Health Care Costs Associated With Food Insecurity and Chronic Conditions Among Older Adults. *Preventing Chronic Disease, 15*. Retrieved <https://doi.org/10.1186/s12875-018-0800-4>

## Cost Benefit Analysis

### Direct Benefits:

- Increase access by eliminating transportation barriers
- Decrease stigma of food assistance
- Empower parents and reduce food waste with dignity of choice

### Indirect Benefits:

- Healthcare costs: food secure individuals spend \$1,834 less annually<sup>8</sup>
- Create a more equitable learning environment<sup>9</sup>

### Impact Will be Measured by:

- Data collected via website
- Surveys sent to recipient parents and students

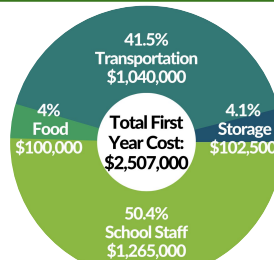


Fig 2. Rough Estimate of first year cost: Following years will likely cost \$1,475,000

## Discussion & Conclusion

This pilot program can be used to evaluate the effectiveness of increasing access to nutritious food and provide direction for future expansion projects.

### Considerations

- 🔒 Data privacy
- 📏 Scalability

### Key Benefits

- 🛒 Access to nutritious food
- ♻️ Less food waste & GHG emissions
- 👤 Improved dignity of choice

