

# MAPPING FOOD INSECURITY FOR SECOND HARVEST

## Challenge

Second Harvest Heartland (<http://www.2harvest.org/>) is one of the nation's largest, most efficient and most innovative food banks. Last year, the organization collected, warehoused, and distributed over 89 million pounds of food to an estimated 532,000 people in 41 counties in Minnesota and 18 counties in western Wisconsin.

Second Harvest's mission is to end hunger through community partnerships. They achieve their mission by focusing on strong results, innovation and thought leadership. As a food bank, they find new sources of food and deliver it to over 1,000 food shelves, pantries and other agency partner programs that in turn distribute this food to hundreds of thousands of families.

One of the ways Second Harvest achieves this mission is through educating community leaders and legislators about food insecurity levels and associated demographics in their areas. Raw data only paints a partial picture and it's often difficult to visualize. They needed a more engaging and impactful experience to effectively communicate this information.

Second Harvest partnered with sdg to conceive, design and implement a web-based interactive map which would allow users to navigate their service area and visually highlight hunger need areas. The tool, now in use, allows them to represent hunger needs in a way not revealed before with strong prospects to enact change and receive additional funding for more outreach.

## Technology Used:

- Google Fusion Tables
- Google Maps
- JavaScript
- Responsive Web Design (RWD)
- Zurb Foundation
- HTML
- CSS
- jQuery
- Handlebars

## Solutions

### *Compatible With Any Device*

Second Harvest engaged sdg to define and execute upon their vision. In alignment with their vision, sdg developed an interactive map that both looks and functions equally well across any device. This "responsive web application" is able to automatically recognize, organize and scale its display to the device of the user. This is important as Second Harvest Heartland could not predict what type of device would access the interactive map.

### *Exceptional User Experience*

Additionally, the interactive map is a "single-page application" where all of the code needed for the page to function is loaded once. As the zoom level, demographic filters, and other data the user seeks is adjusted, the interactive map dynamically communicates with the backend data and automatically redraws itself according to what the user has instructed the map to display. This user interaction is seamless and fluid providing a fast and delightful user experience.

### *Powerful and Information Rich*

The data used in the application is detailed enough to display hunger needs by census tract, or clusters of about 8,000 people, which allows the user to efficiently view hunger need hot-spots within a community. Additional user-controlled data layers provide useful information on items such as food shelf locations, the amount of food distributed at each location, Commodity Supplemental Food Program (CSFP) locations, school locations, how many students receive free or reduced meals, and poverty rates for seniors and children at different ages.

While in its infancy, the application is extremely powerful, yet easy to use, and a major step forward in communicating targeted food insecurity data across a population.