Spatial Representations of Emergency Food Assistance
in the Little Village and Pilsen Communities

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Project Summary

Background and Major Issues Addressed

This project was a collaboration between DePaul University GIS students, and our client, Enlace Chicago, which is a not-for-profit organization in Little Village. Enlace Chicago is part of the Hope Response Coalition, which is a network of organizations and churches representing the Pilsen, Little Village, and Bridgeport communities of Chicago. One of the main goals of the Coalition is to establish emergency food providers in Latino communities. Simone Alexander, our contact and representative from Enlace Chicago, expressed some of the concerns regarding emergency food assistance in Little Village and Pilsen and explained what we might be able to do to help. Given a small time frame and limited resources to complete this project, we chose a few topics to focus on from the host of information Simone provided us. We narrowed it down to three main objectives that we felt covered these issues. The first objective was to address the ground coverage of the food providers to be able to determine what areas of Little Village and Pilsen are underserved and therefore, which community members might not have access to food assistance. The second objective was to examine daily food assistance to determine what days of the week are lacking in food assistance options as well as what areas of Little Village and Pilsen are underserved on specific days of the week. The third objective was to display the locations of community gardens within Little Village. Community gardens are not food assistance providers, but rather an alternative option to community members for fresh produce. Many of the residents in Little Village maintain gardens in their own yard space, but for the people that live in apartments or other forms of housing where a garden might not be an option, the community gardens are a useful tool.

Simone provided us with datasets consisting of any information about the food assistance providers in Little Village and Pilsen that Enlace collected. This data included food assistance providers in the form of food pantries and shelters, but we focused on pantries for consistency because there were only a few shelters on the list and their operation of food assistance is slightly different than pantries. We then organized the food pantry data so that we could address our objectives in visual format by creating maps using ArcGIS.

For all three objectives, we created maps that included some basic geographical elements. These included an outline of the two community areas; a streets file so that it is easier to reference places within the communities by street intersections; and a file that displays the industrial sections of the communities so that it is easier to determine what areas of the communities are residential and would therefore need access to food assistance.

To specifically address our first objective, that is, to determine what areas of Little Village and Pilsen are underserved in food assistance, in the map containing the previously stated files we added points that represented the location of every food pantry. We found that there are many pantries that have no limits to what areas of the communities they provide to, and therefore the entire geographic extent of Little Village and Pilsen are technically covered for food assistance. The problem is accessibility – the pantries that have no limits might be too far from where someone lives. Therefore it was important to also map the proximity to each pantry. To do this, we mapped an outline of a half-mile radius around each food pantry to show what areas of the communities are within walking distance to each pantry.

To specifically address our second objective, that is, to determine daily food assistance options or lack thereof, we created a map for each day of the week. Each day map included the general

elements previously described, as well as, the point locations of only the food pantries that serve on that day. We then chose two of these maps, one with the most pantries serving and one with the least number of pantries serving on that day of the week. These maps are designed to inform food assistance providers about how to better collaborate amongst themselves in order to have an even geographical spread of pantries open on every day of the week.

To address our third objective, that is, to display the locations of community gardens, in a map containing the previously described general map elements, we added points that represent the location of every community garden. This mapping of community gardens is to serve as a visualization tool of an alternative food source to food pantries.

Results

To answer our first objective, from looking at our map, it seems as though most residential areas of Little Village and Pilsen have a food pantry within a half-mile. Although this does not tell us anything about who each pantry accepts or what days they are open. That is why it is also important to examine the results of our second objective.

To answer the second objective, from looking at our maps, we see that there is a tremendous lack of food pantries open for service on Tuesdays – there is only one open in Little Village and two open in Pilsen. This means that on Tuesdays, there are very few options for residents seeking food assistance and they will most likely need to travel quite far to find it. In contrast to the Tuesday services, we also found that on Thursdays there is a decent amount of food pantries open in Little Village with four pantries in service, although the service in Pilsen on Thursdays is lacking with only one pantry open.

To answer the third objective, from looking at our map, we see that the general spread of community gardens throughout Little Village is adequate. Generally speaking, there is a community garden in every area of the community.

Overall, our analysis shows that Little Village and Pilsen are underserved in regards to food assistance, especially when you take into consideration the large populations of these communities and the high poverty rates.

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Section 1. Introduction.

Issues with access to fresh, healthy food is a very common issue in many low-income, inner city neighborhoods. The term used most often to describe these underserved areas is: "food desert." Access to healthy, fresh food can include, but not be limited to retail grocery stores with fresh fruits and vegetables, non-for profit food pantries, and even community gardens.

For this project our team members: Mia Robidoux, Stephanie Hughes, Robert Sameh, Daniel Steinfels, and Robert Gorcik have been working with Simone Alexander of Enlace Chicago to put together an interactive map that displays specific blocks within the Chicago Community Area of Little Village that are better served by these facilities as defined primarily by proximity and which ones are not.

Spatial data that shows which areas of Little Village are better served in regards to food access however, is not enough, as a user needs to know information such as addresses, contact information, hours of operation, what type of food is available, how much, and if there is any restrictions as to who may use the service.

Described below are more in-depth details that specify the needs of the project and our client at Enlace Chicago. Also the results of the findings are found below, followed by an overall summary and a list of recommendations for further data collection and analysis.

Section 2. Needs Assessment.

2.1 Introduction to the Needs Assessment.

Many organizations throughout Chicago work to assist those who are in poverty and cannot afford food. Within the Little Village/Pilsen community there are there are a couple organizations because of the areas high poverty and population. Two of these main organizations are Enlace Chicago and the Hope Response Coalition Mission. The Hope Response Coalition Mission (HRC) is based in the "Pilsen, Little Village and Bridgeport community organizations and churches that address our communities' basic needs – including food, shelter, clothing, wellness and mental health – as human rights." Enlace Chicago is a sub-organization of the HRC, which is a very similar organization, that breaks down into four main departments Community Education, Violence Prevention, Economic Development, and New Communities Program. Through these departments, Enlace assists the Little Village/Pilsen community areas on a wide range of topics.

2.2 Background of Enlace Chicago.

Enlace Chicago is a not-for-profit organization dedicated to improving the quality of life of the residents of Little Village and Pilsen through improving quality of education, neighborhood safety and access to better economic development. One of the main issues Little Village and Pilsen faces is the lack of healthy produce and emergency food. This Food Assistance program works toward improving the community's access to emergency food. The residents of Little Village and Pilsen are uninformed of the whereabouts of pantries, soup kitchens and other services that are available to them. The common information of these pantries and services is badly advertised from the hours they are open to the amount of food they can provide.

Our client, Enlace Chicago, represented by director Simone Alexander, identified the following goals:

- create maps demonstrating how areas are served/underserved within Little Village/Pilsen communities by food pantries and community gardens;
- further categories of food pantry sites in terms of degree of access and types of retail;
- and focus on displaying data in a way that is comprehensive and accessible.

Our client has also provided us with the Emergency Food Provider Analysis, which is a database for these emergency food locations that has been collected by Enlace Chicago and other sources over the years. Another important step will be looking to the past for similar projects to help get an idea of how to go about the process of a project such as this. Simone provided us with a Food Assessment Report from the summer of 2010 that listed much of the information we will be mapping out, however this report did not have any visuals to assist viewers of the report (Enlace 2010).

Communication with Simone Alexander, the client, was primarily arranged via email, with three to four visits through the semester. Simone led our team on a tour of the community as well as to communicate the progress our team has made, in ways that are more effective than via email. In these meetings and emails, we will also inform her of our progress and how we can best use GIS to inform the Little Village Community and

Pilsen of emergency food locations. GIS operations will consist primarily of geocoding data that the client has provided us, and categorizing points of food access.

2.3 Literature Review: Spatial Representations in Food Assistance Studies.

Over the years, researchers and geographers have used maps and other data analysis towards the study of food assistance in a variety of places and situations. Suzuki Wataru (2008) utilized a map in a study of the rising population of homeless people in Japan which looked at the distribution of food as well as the spatial distribution of Japan's homeless population. Wataru found that even beyond the more obvious elements that impact homelessness, such as the availability of employment, the extent to which food is accessible has a significant impact on homelessness. A separate study observed the emergency response time in the aftermath of a major earthquake in Pakistan in 2005 (Benini 2009). Benini used GIS to represent the various aspects, including food assistance, essential to relief delivery. Benini's approach to investigating of disaster relief and food assistance represents the many ways in which spatial representation serves as a beneficial tool in studies concerned with food assistance.

A localized study by Block et. al (2008) used spatial representation in the investigation of the availability of healthy and culturally appropriate food in the Chicago area communities of Englewood, Hegewisch, the Lower West Side (Pilsen), Portage Park, Riverdale, and Uptown. This study found that there was a lack of healthy food in the majority of the community areas they studied. Furthermore, the study found that many poverty ridden communities do not have access to nutritious food, which increases obesity rates, among influencing the rate of other health problems. Block's spatial representation of the situation displayed where healthy produce was available and the distance of supermarkets from residential areas. This study had many maps that provided a range of data; however they were not as compact as the one we have completed.

Studying communities on a smaller scale allows for more detailed, familiar, and area appropriate analysis. Our client from Enlace, Simone, provided us with one article that relates to ours and uses GIS. However, in our searching we were unable to find a map that provided the amount of data that the map we are constructing does. Through GEOBASE at DePaul Library, we found two different articles that used ArcGIS or a similar idea in mapping out data. Although these articles have given us insight into what variables to look at when making our map and how to create well structured maps, our team recognizes the potential presented to us– and future researchers interested in the study of food access– in selecting a localized area for extensive research.

2.4 Goals.

Our group will examine the food assistance issue in the Little Village Community. The overall goal of this project is to create a database easily accessible and usable by food assistance providers as well as the people seeking food assistance within Little Village and Pilsen. More specifically, we would like to transform the data into a visual resource such as a comprehensive map that would demonstrate attributes of the food assistance programs showing pantries and community gardens. The attributes displayed would include, but not be limited to: boundaries, information about who they serve and how often, exactly what type of assistance they provide, and the hours and days of the week they are in service.

2.5 Objectives.

In order to achieve our goal, we will need to identify the answers to several questions our goal implicates, namely: What information is required by those residents of the Little Village and Pilsen communities who seek food assistance to meet their needs? What other information might be additionally helpful? What resources are out there for them? How might those resources include/exclude (intentionally or unintentionally) certain residents in the community? What might be the most effective way to display and distribute the information to the Little Village/Pilsen residents seeking assistance?

Based off of these questions, the group has identified some basic information that we seek to collect or recheck: locations of emergency food providers (e.g. pantries), days and hours of operation for those locations, and how many people/area which they serve. Additionally we would like to begin collecting details about food poundage held by the food providers in question as well as information about local community gardens so that future researchers may build off of the information we initially establish, even if pursuing these other avenues appears outside of our own group's scope.

To display this information, we will have to explore ways to incorporate the data we have into ArcMap in a way that is comprehensive to the organizations and residents who will be accessing this map.

Thus, our objectives are:
- To identify the information required by Little Village and Pilsen residents seeking food assistance.
- To collect and update data which meets these established needs.
- To supplement our research with an introductory foundation of additional information regarding food poundage and community gardens (ideally to be built upon by future researchers).
- To clean, normalize, and geocode the data.
- To create appropriate buffers and symbols to represent the service areas and days/times of each provider.

2.6 Information Products.

In this project, our ultimate goal is to use the updated information provided to create certain resources that will aid in the accessibility and proliferation of existing and upcoming food assistance programs within Little Village and Pilsen. This information will take two basic but related forms: Maps that contain geospatial analysis of the food assistance programs accessible to those living within or near Little Village/Pilsen, and the database which contains the data displayed on the map.

The maps themselves should serve to accurately enable visual analysis of the food assistance programs in the areas specified. This will enable food assistance providers with the ability to quickly identify where the existing programs are not providing enough coverage. This will also assist in the ability to provide direction for growth and creation of new food assistance programs in the future.

Additionally, this map will be provided in a digital format, so that it can be continually updated as new information becomes available. This would ensure that the next group working

on the project will not be stuck rebuilding from the ground up. With this data we will also provide guidance that will give direction for future individuals working on, expanding, or updating the project.

The database used with the map will be a master file of food assistance programs within the target area of this project. It will contain all of the collected, geocoded, and normalized data that would be relevant to those in need of food assistance, as well as those provided the service. This database could be easily modified as a handout so that members of the public could be provided with the data in either a digital or paper format that is easy to understand and utilize.

Thus, ideally our information products will be:
- Usable database containing information for residents, food assistance programs, and not-for-profit organizations
- Maps representing said database/findings
- Both should be easily accessible and understandable by the public (eg: Where there might be a shortage of food access due to boundary restrictions)

Section 3. System Requirements.

3.1 Introduction to the System Requirements.

Section 2 identified the goals of Enlace Chicago and the Hope Response Coalition (HRC) as concerned with the development of "services, resources, coordination and leadership in this community area in order to increase food security" for the residents of the Little Village and Pilsen communities (Enlace 2010, p. 1). In determining our project goal, our team sought to advance Enlace and HRC in their initiative to serve the communities food access needs by creating a GIS readable database that is easy to access, easy to update, and easy to use by the participating organizations and food providers under the jurisdiction of HRC and Enlace. As this assessment of our system requirements will explain, the purpose and planning of our project will evolve around benefitting the identifiable needs and goals of our clients.
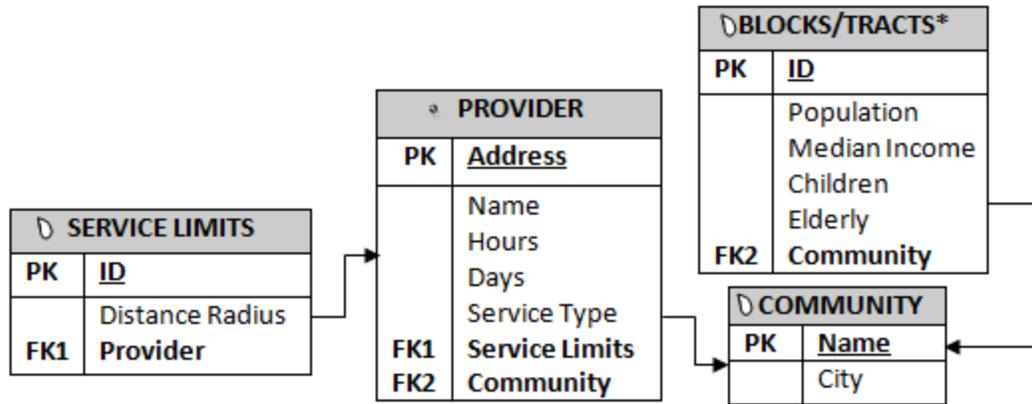
This means considering the need-to-know questions of Enlace and HRC as well as the concerns of the residents of Little Village and Pilsen who rely upon the services of the aforementioned organizations. At a core, the needs of both the residents and food access oriented organizations of the Little Village/Pilsen communities are as follows:

1) To what extent are the residents of the Little Village/Pilsen communities being sufficiently served in regards to emergency food access? "Sufficient service" may be analyzed by noting:
    a. food pantry locations;
    b. frequency of coverage (e.g. hours, days);
    c. resident accessibility to services (i.e. walking distance, provider service area and/or restrictions);
    d. and demographics of residents (i.e. income, number of children/elders).
2) What areas of Little Village/Pilsen are underserved? An analysis of "under-service" may be determined through the features outlined in the first question.
3) How do the current schedules (e.g. hours, days, weekly/biweekly) of emergency food providers in the Little Village/Pilsen areas impact or limit service to certain areas/residents? How can these schedules be altered/expanded to improve emergency food service?
4) What alternative food sources are available to the Little Village/Pilsen residents?

The database provided to us by Enlace Chicago includes the identifiers and basic information needed in order to pursue the answers surrounding these questions. We intend to further the previous research by reworking this data for a spatial representation which will allow for a deeper analysis and understanding of food providers in Little Village and Pilsen. Making this data more accessible for analysis will move our research and future research towards answering the questions and concerns detailed above.

3.2 Data Requirements.

As a part of detailing the entities and attributes that would contribute to our research focus, our team created an Entity Relationship Diagram (ERD) that lists and relates the entities and attributes that would support a goal of answering the questions outlined in Section 3.1.

BLOCKS/TRACTS*

PK	ID
	Population
	Median Income
	Children
	Elderly
FK2	Community

PROVIDER

PK	Address
	Name
	Hours
	Days
	Service Type
FK1	Service Limits
FK2	Community

SERVICE LIMITS

PK	ID
	Distance Radius
FK1	Provider

COMMUNITY

PK	Name
	City

*Although the use of Census Data was not approached in our research, the entity is here listed as a reminder to future researchers of the possibilities its inclusion.

Figure 1. An Entity Relationship Diagram outlining the relationships between attributes that contribute to the need to know questions listed previously.

The results of this diagram demonstrated the key points that would provide further insight into the quality and nature of emergency food service in the Little Village/Pilsen communities. We concluded that providing extensive information about the providers, including their addresses, times of service, service types, and service limits, would benefit our study and the goals of Enlace and the HRC. We also identified the need to identify a "Distance Radius" as a part of investigating "Service Limits." This "Distance Radius" represents "walking distance" and "distance from" each food provider. As will later be discussed, our team chose to represent the "Distance Radius" as a half-mile buffer (approximately a ten minute walk from the farthest point) surrounding each location. Finally, although limited time and the limited availability of small scale 2010 Census Data (the project was conducted before the extensive release of the 2010 Census Data) placed the incorporation of the "Blocks/Tracts" as outside our scope, we included this entity to the ERD for the consideration of future research teams.

3.3 Processing Requirements.

Upon identifying both the needs of our clients in the Little Village/Pilsen communities as well as the entities and attributes required to meet those needs and questions, we decided upon the GIS operations required of our team to address our goals and the goals of our clients. These GIS operations are as follows:

1) Digitize and normalize all attribute data;
2) Transform the attribute table into ArcGIS format;
3) Geocode the addresses of each food pantry and community garden;
4) Create buffers for each food pantry to address proximity;
5) Run queries to test service sufficiency of food pantries;
6) Overlay the information to create comprehensive deliverables.

Section 4. Data Acquisition.

4.1 Introduction.

In order to complete our project goal effectively, our group had access to data which let us know where the food assistance providers are located, as well as when and who they would provide service to. This allowed us to see if there are any specific areas that will need more attention or improvement than others. The main dataset we plan on using was provided to us by our group's sponsor, Enlace Chicago much of the data was not geocoded in advance. We used additional geospatial information from the city of Chicago as a background to give our data significance.

4.2 Data Dictionary.

Pantries_geocode.shp (geocoding results)
      Spatial Object Type: point
      Attributes: Organization Name, Contact, Address, City, Zip Code, Type, Geographic Area
      Data Format: Shapefile
      Processing: Entered necessary information including: state, city, zip code into geocoding function.
      Source: Enlace Chicago(Simone Alexander)

Grdns_geocode.shp (geocoding results)
      Spatial Object Type: point
      Attributes: Organization Name, Contact, Address, City, Zip Code, Type, Geographic Area
      Data Format: Shapefile
      Processing: Entered necessary information including: state, city, zip code into geocoding function.
      Source: Enlace Chicago(Simone Alexander)

LittleVill_Pilsen.shp (clipped community area):
      Spatial Object Type: Polygon
      Attributes: Area, Name
      Data Format: Shapefile
      Processing: Used clip function in ArcToolbox on data source: Chicago community areas (CCAs) to isolate community areas:
      Source: Chicago community areas (CCAs)

Industrial_Corridor.shp(clipped community area):
Spatial Object Type: Polygon
      Attributes: Area, Name
      Data Format: Shapefile
      Processing: Used clip function in ArcToolbox on data source: Chicago community areas (CCAs) to isolate community areas:

Source: Chicago community areas (CCAs)

selectedroad.shp (roads):
        Spatial Object Type: line
        Attributes: Length, Streetname
        Data Format: Shapefile
        Processing: None
        Source: Tiger GIS

Buffer.shp (Buffer distance of Pantries/gardens)
Spatial Object Type: Polygon
        Attributes: Area, Match address, Boundaries, buffer distance, object ID
        Data Format: Shapefile
        Processing: Used buffer in ArcToolbox on data source:
        Source: Food pantry attribute table(Enlace Chicago, Simone Alexander)

4.3 Fitness for Use.

Is the scale or resolution appropriate?

        The scale we are using for these maps is on a community level, which observes the Little Village and Pilsen communities. This, of course, means that future groups could easily expand the scale by incorporating our attribute data into a larger map at a city-wide scale.
        Since these are thematic maps at a community level, the maps will be as detailed as possible, outlining roads to provide a reference.
        Most of our attribute data is nominal, as much of it will be used for labeling streets and food providers. Our focus was on mapping the locations so that we can add buffers and visualize how and where these locations operate.

Is the accuracy what you or your client had hoped for?

        Based on our discussions with our client, the direction that we took this data and the scale that we focused on lines up to match our client's expectations. There are no other maps available for us to compare our final product to in terms of our concept within the specific area; however there are maps at similar scales that exist of the target area, as well as similarly executed concepts. Due to this fact, we tried our best to make sure all data was correct.

What are the limitations of using the particular data set?

        One of our limitations was that there isn't much data specifically collected about the Pilsen and Little Village communities related to our project, so updating the data already present must be done by primary research instead of seeking out secondary sources. Other similar projects may be engaged in the future, which would make further work on this project easier. Over our time working on this project, certain data was hard to get a hold of, which resulted in us having to exclude some of the information that we wanted to originally include on the map.

Due to the lack of specific census data, we were initially unable to map which sections of our targeted areas were residential in nature. To circumvent this problem, our group included spatial data of the locations of industrial corridors, where residence would be minimal. This allowed us to focus our attention to areas that were more populated.

Is the data complete?

- *Attribute completeness*: There were some missing values for some of the attributes in the original data file given to us by Enlace, the community organization we are working with. We looked through the data and determined a portion of the original attribute data to include in our final product as opposed to the entire dataset. Of the data that we decided to include, all of it was complete and verified.

- *Spatial completeness*: Our data is spatially complete due to the fact that the address locations for the food pantries and community gardens were properly geocoded and verified. Additionally, we confirmed that the industrial corridors, distance buffers, and boundaries highlighting Pilsen and Little village were correct.

Is the data logically consistent?

We worked on transforming the attribute table into a spatial format on a map that is understandable for both the food assistance providers and people seeking food assistance. We geocoded the addresses of locations, which were all consistent with the raw data we were given. We conducted buffer analysis and outlined a half-mile radius around each food provider, from which we will be able to perform queries and utilize different display tools, ensuring that the spatial mapping is consistent with our raw data.

Is the data current?

Yes, the data is current. All of the data we are using was collected and organized by prior groups as recently as the summer of 2010. This data was given to us by Enlace, so one would assume that they would provide us with their most current dataset.

4.4 Data Acquisition Constraints.

We were given the bulk of our data from Simone, our Enlace contact. We ended up having to exclude some data from our final data file due to the fact that it was not complete. The poundage data, along with the other non-complete data that was not included, will hopefully be gathered and included by the next group that will take charge of the website. Additionally, we were unable to acquire 2010 census information on a block by block or similar scale, which our group would have used for further analysis, such as to determine population density and poverty level.

Section 5. Data Analysis and Visualization.

5.1. Introduction.

The procedure primarily is to geocode the locations for community food pantries as well as community gardens. In addition to the geocoding of the spatial data, attribute data that includes such important information such as contact information, hours of operation, what type and how much food can be obtained are necessary to create an easily accessible data package that community organization leaders and residents alike can access very easily to know where they can obtain healthy, nutritious food throughout the year within the Little Village/Pilsen community areas.

5.2 Information Products.

This section outlines the final Data Products of this project along with the Supporting Spatial Vector Data files we used to create the Data Products.

Data Products:

Geocoded results of locations of food pantries with attribute table containing vital information such as location, hours of operations, type of food distributed, how much food distributed, and contact information. These are all necessary pieces of information that the users will need to get the most use out of our final data product.

Geocoded results of locations of community gardens. This is a minor component of the food assistance project, but is important nonetheless in order to better convey the food assistance options available to residents of the communities.

Supporting Spatial Vector Data:

Streets: Including vital information such as names of streets to have an important reference for users when looking at the final map product.

CCA (Chicago Community Area) shapefiles: Including vital information such as name of community areas. A procedure was done to clip only the community areas so that the user only has to look at features within the community areas of Little Village and Pilsen.

5.3 Data Analysis.

This section displays two process diagrams showing a step-by-step layout of how we created the resulting maps of this project.

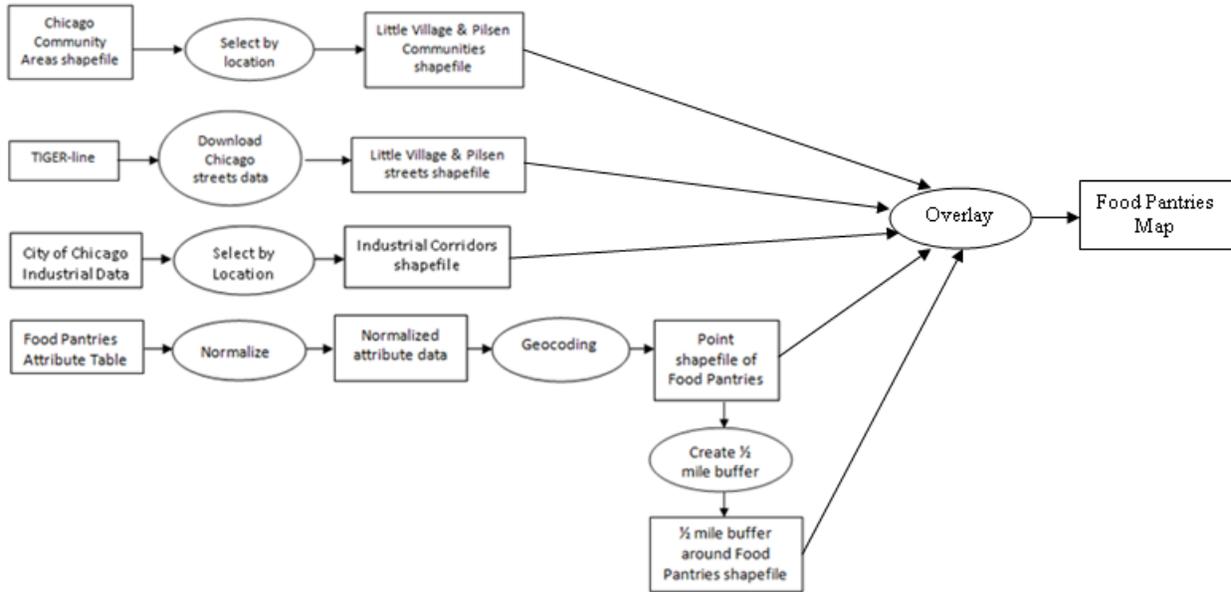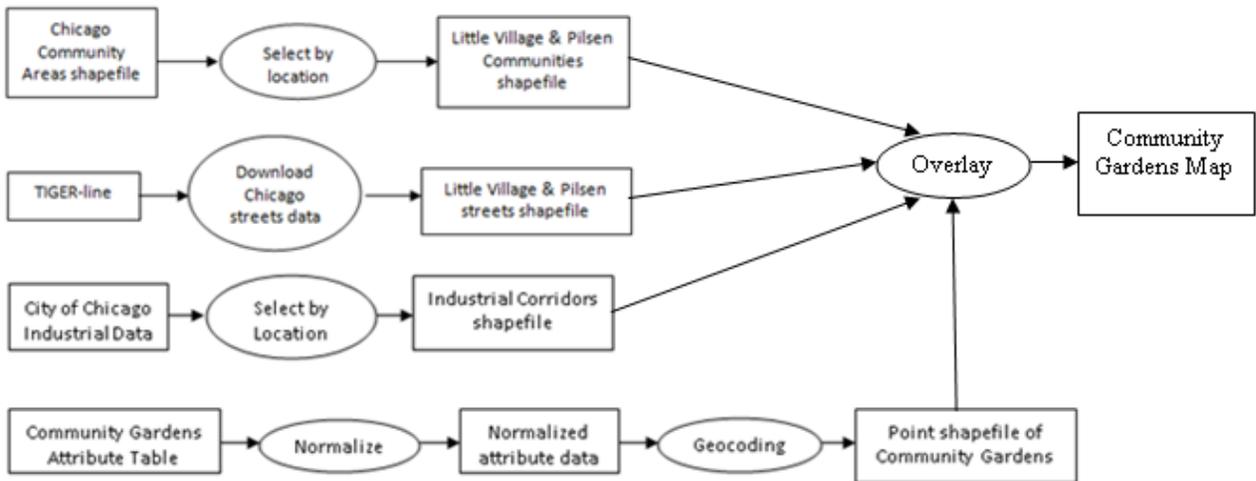Figure 1. Process Diagram of how Food Pantries Map was created.

Figure 2. Process Diagram of how Community Gardens Map was created.

5.4 Data visualization.

   The goal of our team was to create a comprehensive map for the Enlace Chicago organization and other organizations working with Enlace concerning Emergency Food Providers (and other alternative food sources) in the Little Village/Pilsen communities. The map our client seeks is one that helps them to navigate and investigate the areas which are (and are not) receiving regular service so that they can assist members of the community seeking food assistance, as well as explore ways that food assistance can reach more people consistently. We identified that one of the best ways for their needs to be met immediately is to create a map which lays out the food pantries (points), their service areas (buffers), and their service days/times (symbols). We have met this need by cleaning, joining, and normalizing the data we have used so that it is viewable as a map (coordinate system SPC) which is easy to edit and interact with. Enlace has a GIS-specialist that will also be available to easily use the map we provide.

   This is primarily a map which displays set phenomena (streets, alternate food sources, etc.). Each aspect of the map was designed to be accessible and easy to read for anyone in multiple formats.

   Since this map is intended to be for interactive use at the Enlace office, map elements that are only viewable through and only concern the layout view are secondary in importance compared to the accessibility and comprehensiveness of the data itself being displayed in the map. That said, for the sake of presentation, we will certainly include map elements such as street labels, a north arrow, a legend, and a scale bar so that there is something permanent for our clients to refer to while working with the map. The basic map design shows the Little Village/Pilsen communities highlighted from their surrounding areas, with the industrial corridors highlighted a different color. Each point of interest on the map, either a Food assistance provider or a community garden, has the option of being surrounded with a buffer of a determinable distance. The buffer was initially used to show services rendered to in an area, but can be adapted for any reasonable geospatial purpose.

Section 6. Results.

6.1 Introduction.

The results of our analysis will assist many residents of the Little Village/Pilsen area in finding pantries and community gardens. These maps will also informed Enlace Chicago and other organizations about the lack of pantries being open on certain days.

6.2 Results.

Our analysis revealed that the Little Village/Pilsen community area is underserved by pantries and community gardens in comparison to the massive population. Even with the pantries that the residents do have access to, they are not open frequently enough. In the maps that display which pantries are open on Tuesdays and Thursdays, you are able to see that on certain days these communities have as little as only one pantry open. For this project we examined every weekday, however instead of making a map for each day, we made ones for the days with the highest and lowest amounts of pantries open. These maps also show that almost all residents of these community areas has a food pantry within half a mile from their house.

The only part of our analysis that resulted in unexpected findings was the fact that Little Village and Pilsen are surrounded by an industrial corridor. This is surprising because even though we knew of some industry in the proximity of Little Village/Pilsen; we did not know that they were surrounded this badly. This relates to our project because much of the soil in these community areas is polluted and is unhealthy to plant gardens in. Therefore, there is a lack of residential gardens, which adds to the overall lack of availability of food.

Our project analysis ended up having four maps that assist in notifying viewers of the pantries and community gardens. Two of the maps just showed where the community gardens and pantries are in Little Village and Pilsen (there was also an outlier in Bridgeport). The two other maps inform viewers of the days of the week that have the most pantries opened (Thursdays) and the days of the week with the fewest pantries open (Tuesdays).

Figure 1: Food Pantries of Little Village and Pilsen
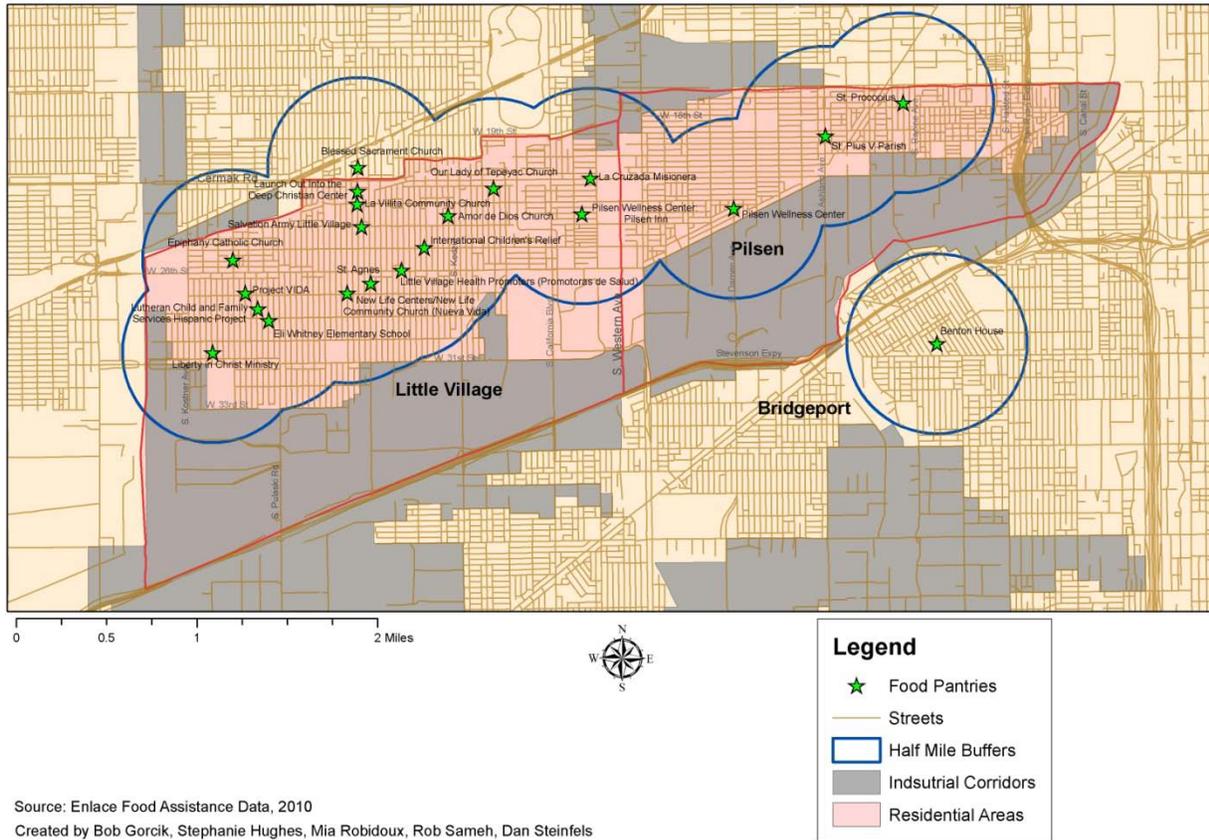
This map shows the food pantries throughout Little Village and Pilsen (there was also an outlier in Bridgeport). There is a half mile buffer around the pantries to help residents get an idea of how far they would have to walk to be there.

Figure 2: Food Pantries of Little Village and Pilsen Open on Thursdays

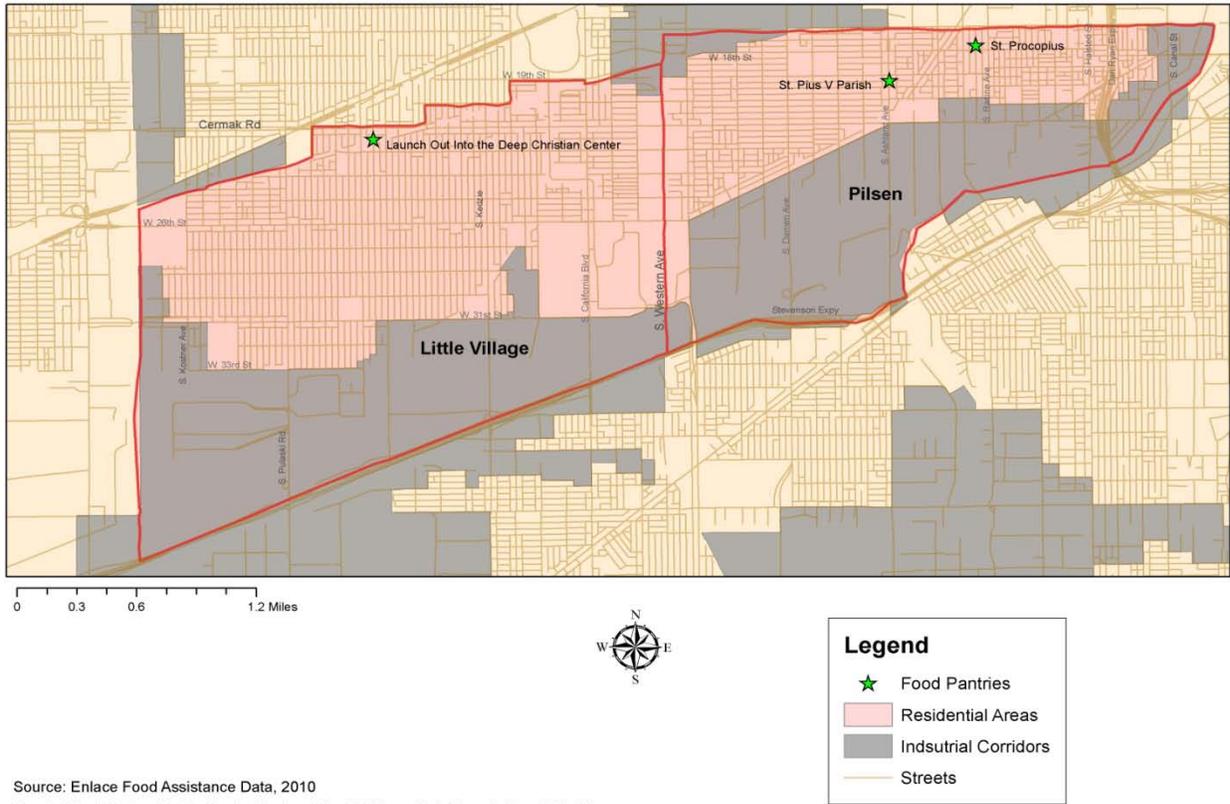Food Pantries of Little Village & Pilsen Open on Thursdays
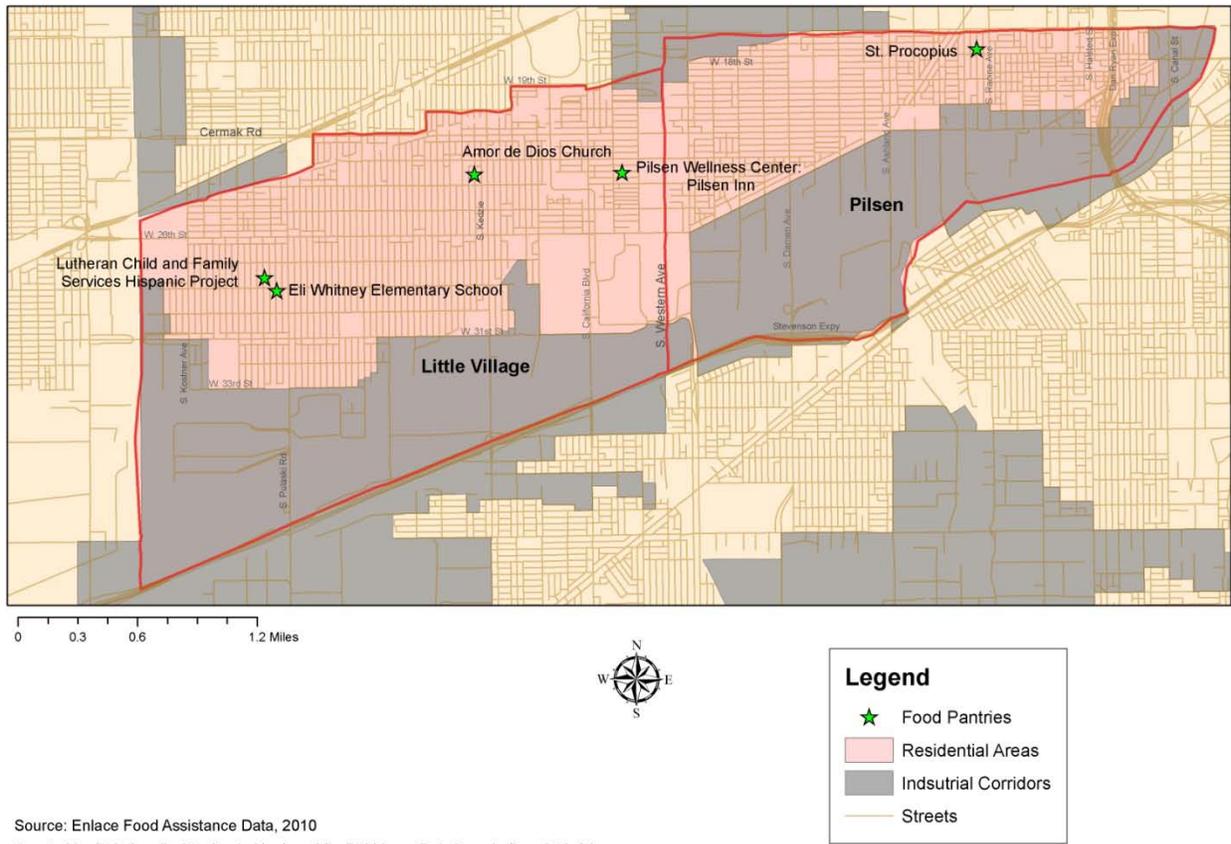
Source: Enlace Food Assistance Data, 2010
Created by Bob Gorcik, Stephanie Hughes, Mia Robidoux, Rob Sameh, Dan Steinfels

This map shows the pantries that are open on Thursdays. Thursdays have the most pantries open compared to any other day of the week. This map also shows you that on certain days there might only be one pantry open in an entire community area.

Figure 3: Food Pantries of Little Village and Pilsen Open on Tuesdays

Food Pantries of Little Village & Pilsen Open on Tuesdays

Source: Enlace Food Assistance Data, 2010
Created by Bob Gorcik, Stephanie Hughes, Mia Robidoux, Rob Sameh, Dan Steinfels

This map shows the pantries that are open on Tuesdays. Tuesdays have the fewest pantries open compared to any other day of the week. This map also shows you that on certain days there might only be one pantry open in an entire community area.

Figure 4: Community Gardens of Little Village

Community Gardens of Little Village

Source: Enlace Community Garden Data, 2010
Created by Bob Gorcik, Stephanie Hughes, Mia Robidoux, Rob Sameh, Dan Steinfels

Legend
* Community Gardens
Residential Areas
Industrial Corridors
Streets
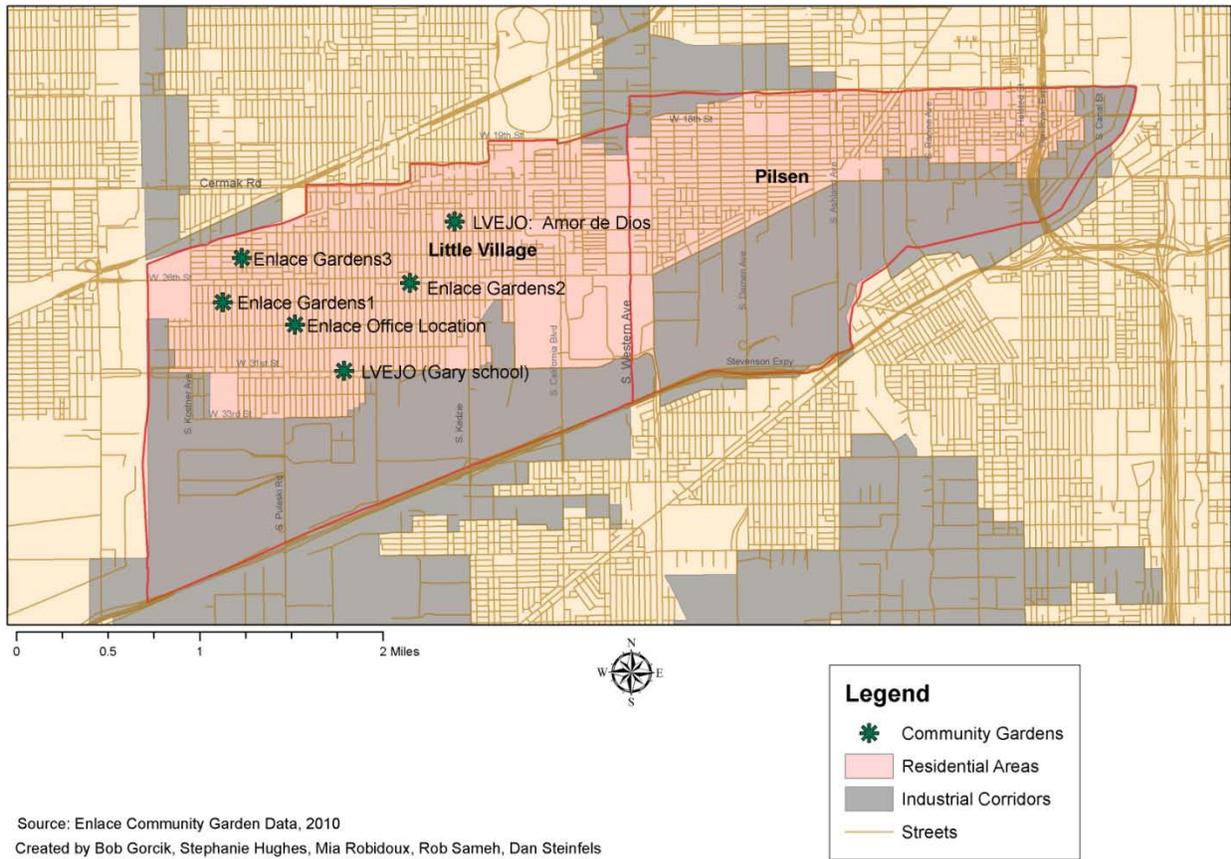
This map shows the community gardens throughout Little Village and Pilsen. There is a half mile buffer around the pantries to help residents get an idea of how far they would have to walk to be there.

These maps will serve as a tool for the residents of the Little Village and Pilsen communities because it helps in informing them where pantries and community gardens are located. These maps also inform Enlace Chicago and HRC that on Tuesdays there need to be more pantries open for people to access.

Section 7. Summary, Conclusions, and Recommendations

This collaborative project successfully created visual products that show residential parts of the Community Areas of Little Village and Pilsen that are within one-half mile of a food pantry, as well as which pantries are open on Thursdays, the day of the week where the most food pantries are open, as well as Tuesdays, the day of the week of which the fewest food pantries are open. This visualization also shows which areas are closest to industrial areas, where there may possibly be soil contamination, which is a concern in regards to community gardens and potential health risks in terms of food access. Another map product shows the locations of community gardens.

The research goals of this project have been met. The technical process successfully showed which areas are better served by food pantries as well as community gardens. The spatial data has been successfully linked to appropriate and necessary attribute data so that this product can ultimately be the most useful to Enlace Chicago, or any concerned citizen or organization.

There are many options for potential future investigations. A more detailed analysis, which could include data for contamination of soil, and city lot ownership, can show future possibilities of community gardens. A detailed analysis of available retail/commercial space can show potential sites for new food pantries that can possibly be open on Tuesdays, a day which as this project has showed, is the day of the week where residents have the least food access. Overall this project has met the state goals, and has opened up possibilities for the future.

Section 8. Technical Appendices.

Appendix A – Contacts

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Appendix B – Charts/Documents used during Project

- Little Village/Pilsen Emergency Food Provider Assessment: Summer 2010
- Emergency Food Provider Attributes Data Table
- Community Garden Data File
- Industrial Corridors Data File
- TIGER-line Data file for Streets

Section 9. Works Cited.

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