CFL and the Boot Camp Way to Succeed

Boot Camp Group
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Project Summary

The Chicago Federation of Labor has organized efforts to "ensure workers rights are upheld both on the job and in the courts," according to its mission statement. Throughout its history, the CFL has worked with many labor unions, pushing for an excellence in the Chicago work force. Recently, one of their many collaborative efforts has been with the Cook County Boot Camp. Through this, they provide resources and job opportunities for men ages 17-35, who plead guilty to a non-violent first offense. Experimental job workshops give these young men an opportunity to better their lives by diving into the sea of employment.

This project was undertaken in an effort to recognize that despite the CFL's attempts to find employment for ex-offenders, outside influences could potentially countermand these efforts. This report will give an in-depth analysis of the alternative factors that could impede the efforts put forth by the CFL. Primarily, this project will address where boot camp participants live and what demographic characteristics their home neighborhood possesses. In specific, this project will discuss the violent crime rate, non-violent crime rate, unemployment rate, and poverty rate of each specified area. It will also assess the correlation between home location and job retention.

This project demonstrates that there is, in fact, a correlation between employment and neighborhood attributes. If a neighborhood has a high crime, unemployment, or poverty rate, then a participant is more likely to re-engage in criminal activity. This report includes maps illustrating results obtained from the data sets provided by the Chicago Federation of Labor.

Introduction

The Chicago Federation of Labor is an organization that strives to help individuals in Chicago and provide them opportunities to join the work force. The CFL has recently collaborated with the Cook County Boot Camp (CCBC) program, which helps young men opt out of jail after pleading guilty a first, non-violent offense. The CFL hopes to provide these young men with opportunities to change their direction through workshops providing them with job skills and preparation. This program is called CFL-WAC.

We originally took interest in this project because a friend of a group member has been through the CCBC. We feel a connection with this project because it involves our potential peers. We hope to achieve a better understanding of what drives our peers to find employment or end up in jail from our results. We think outside influences could have an effect on whether this peer group will thrive on the opportunities handed to them or neglect their resources and eventually end up in jail.

Our driving research question is whether or not the collaboration between the CFL and the CCBC program is producing results, or if other attributes can interfere with employment opportunities. We chose to create maps to visually display how home locations of boot camp participants correlate with their current employment or jail status. Our needs assessment section elaborates on this introduction, as well as distinguishes our goals and objectives. The system requirements section addresses what resources enable us to answer our driving research question. Data acquisition focuses on the methods we used to obtain our data and create accurate and normalized databases. We will then discuss our data analysis, which describes the processes used to create our visual aids. Our results section includes our finals maps, which reveal the correlation between job placement and home location. Our conclusion includes recommendations on how to evaluate our final product.

Needs Assessment

The context in which our project is being developed is through collaboration with the Chicago Federation of Labor. The main objective of the Chicago Federation of Labor, according to the mission statement found on its website, is "to stand up for working men and women by supporting organizing efforts to ensure that workers rights are upheld both on the job and in the courts." The Chicago Federation of Labor was founded by the American Federation of Labor on November 9, 1896 and has worked with union laborers towards common goals ever since, advocating for all men and women in the work force. Although the initial purpose of the Chicago Federation of Labor was to end the corruption of labor unions in Chicago, over the past 100 years it has evolved and expanded. The Chicago Federation of Labor is now associated with over 300 unions in the Chicago area whose membership exceeds 500,000.

The Chicago Federation of Labor has teamed up with the Cook County Book Camp (CCBC), a program that serves as an alternative to jail time for men ages 17 to 35 who plead guilty to a non-violent first offense. To serve the needs of the CCBD, the Chicago Federation of Labor has created a link between their Worker Assistance Committee (CFL-WAC), and the boot camp participants, providing resources for both job searches and placement through monthly, four-day workshops. Now, the Chicago Federation of Labor wishes to see whether their collaborative efforts are producing results. The Chicago Federation of Labor has invited DePaul GIS student volunteers to create a visual representation of how beneficial the CFL-WAC is in assisting boot camp participants in the labor market.

We researched studies done in the past that address issues of employment of ex-crime offenders in an attempt to better understand the structure and context of our project. One piece of literature we found gave us insight before beginning our project, stating, "instead of following the old track of simply linking crime to unemployment…it is access to jobs that matters the most and even causes unemployment itself" (Wang 212). While the Chicago Federation of Labor wishes to prevent boot camp participants from committing crimes by offering them employment resources and opportunities, one project cited that "individual employability is unlikely to succeed in reintegrating ex-offenders through work" (Fletcher, 1). We plan to uncover if the CFL-WAC really is helping boot camp participants stay out of jail.

Our group examined where the boot camp attendees relocated upon their release from the facilities. Our goal was to understand the patterns of movement of these individuals and if these programs under the CFL-WAC are successful in moving these individuals away from a life of crime again. By determining how these people move spatially, our results show that many participants moved into areas that increase their chances of participating in crimes. We gathered neighborhood data from the City of Chicago about crime rates, unemployment rates, and poverty rates to analyze the relationship between risk of re-

committing a crime and neighborhood demographics. This report shows how social and economic environments affected these individuals. When observing social environments, we looked at the crime rates of community areas where participants reside. From an economic standpoint, we looked at the unemployment and poverty rates of Chicago community areas. By using these attributes we gained an understanding of how Chicago community areas affect employment of participants. We recognize the correlation between our attributes and the participants' spatial distribution across the Chicago area. Our initial goal was to discover whether spatial patterns exist between community demographics and participants' employment rate. This goal helped us assess whether the mission of CFL-WAC is being fulfilled.

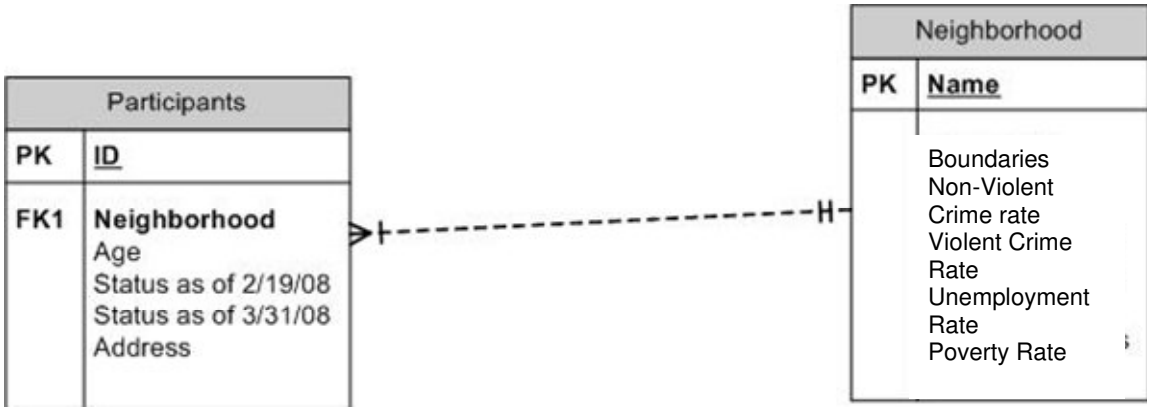
Our main objective was to map out where the participants of the CFL-WAC program lived post-boot camp. We did this using GIS. We also created a visual representation of the neighborhood qualities and the crime rates of the neighborhoods where the participants reside. These maps helped us analyze the data and meet our goals. By looking at the visual representation of home location, crime, unemployment and poverty, we were able to decipher a pattern.

System Requirements

The following system requirements helped us discover whether CFL job placement is producing results from its collaborative efforts with the Boot Camp Participants in the labor market. The software functions we used to answer our need to know questions include GPS, Data Transfer, Data Storage, Manipulation, Quality Assessment, and Thematic Mapping Techniques. These functions helped us analyze and assess our data concerning the success rate of the CFL-WAC program.

Data Requirements

Need to Know Questions	Neighborhood	Participants
1. What Neighborhoods do Participants live in after Boot Camp?	X	X
2. What are the demographics of the neighborhoods that Boot Camp Participants live in?	X	
3. Can we identify characteristics of neighborhoods in which participants have a high/low job placement rate?	X	X



The entities are neighborhoods and participants, the participants belong to the neighborhoods and the neighborhoods contain the participants. The attributes of the neighborhoods are violent and non-violent crime rate, poverty rate, and unemployment rate. The attributes of the participants are their status as of 2/19/08 and 3/31/08 and their address.

Software Requirements

Need to Know Questions	Data Collection	Data Management	Data Manipulation	Data Analysis	Visualization
1. What Neighborhoods do Participants live in after Boot Camp?	Collected data from CFLWAC, used GPS to collect lat/long of 4 participants to verify data	Made sure there is only one instance of each participant, checked spelling so geocoding will work	Geocoded participant non spatial data into spatial data, Compared geocoded data to GPS collected data.	Combined participant data and neighborhood boundaries map.	We made two different point maps, one for the first date and one for the second. Each will have the participants' home location. The symbols signify whether they have a warrant, are in jail, employed or unemployed.
2. What are the demographics of the neighborhoods that Boot Camp Participants live in?	Collected neighborhood demographics from City of Chicago website and Census Data. Also used Chicago Police website	Normalized data and added all demographics forming one database	Used point in polygon overlay to place participants into neighborhood boundaries with demographics		For the demographics we made four choropleth maps for each date (8 total). Each map shows one of the following: violent crime rate, poverty level, non-violent crime rate, or unemployment rate. The participant data is overlayed over the neighborhood data.
3. Can we identify characteristics of neighborhoods in which participants have a high/low job placement rate?	Use data from previous two questions				If we notice that there are correlations that look important we will be able to map note of these things.

Data Aquisition

The goal of our project was to examine the success of the CFL-WAC program. We presumed there was a correlation between what neighborhood the participants lived in and whether they were employed, unemployed, had a warrant out for their arrest, returned to jail. We used GPS to check specific locations to determine the accuracy of our data, established database relationships between participants and their neighborhoods of residence, and gained more insight into how fit our data is for our project.

Data Dictionary
Data Set Name: Boot Camp Participants

File Name: Participants

Description: Data on Boot Camp Participants in the Chicago area containing information on participant identification number, age, street address, city, state, zip code, employment status as of 2/19/2008, and employment status as of 3/31/2008, and location with latitude and longitude values.

Source of the Data: Chicago Federation of Labor; Judy Lai

Processing steps:
1. Checked and verified specified locations with a GPS receiver.
2. Converted .xls file to .dbf file so that it can be accessible in ArcMap.
3. Geocoded addresses to get Latitude/Longitude in decimal degree, preparing our data for map-making.
4. Matched all unmatched locations.

Spatial Object Type: point

Field Name	Description
ID	Participant ID; Primary Key
Neighborhood	Neighborhood where participant's home is located; foreign key
Age	Age of participant
Status as of 2/19	Participant status (employed/unemployed/warrant/in jail); 2/19/08
Status as of 3/31	Participant status (employed/unemployed/warrant/in jail); 3/31/08
Address	Home address of participant

Data Set Name: Neighborhoods of Residence

File Name: Neighborhood

Description: Data on Chicago Neighborhoods, containing information on boundaries, violent crime rate, non-violent crime rate, unemployment rate, and poverty rate.

Source of the Data: City of Chicago Website

Processing Steps:

1. Looked up demographic information on all represented Chicago neighborhoods.
2. Converted .xls file to .dbf file so relationship between participants and neighborhoods can be established.
3. Established relationship between participants and the neighborhood they live in.

Spatial Object Type: polygon

Field Name	Description
Neighborhood	Neighborhood where participant's home is located; primary key
Boundaries	Legal boundaries of each neighborhood
Crime Rate (V)	Violent Crime rate in each neighborhood
Crime Rate (NV)	Non-violent crime rate in each neighborhood
Unemployment	Unemployment rate for each neighborhood
Poverty	Poverty rate for each neighborhood

Data Format: The geocoding result is a shapefile, the participant and neighborhood data are database files (.dbf)

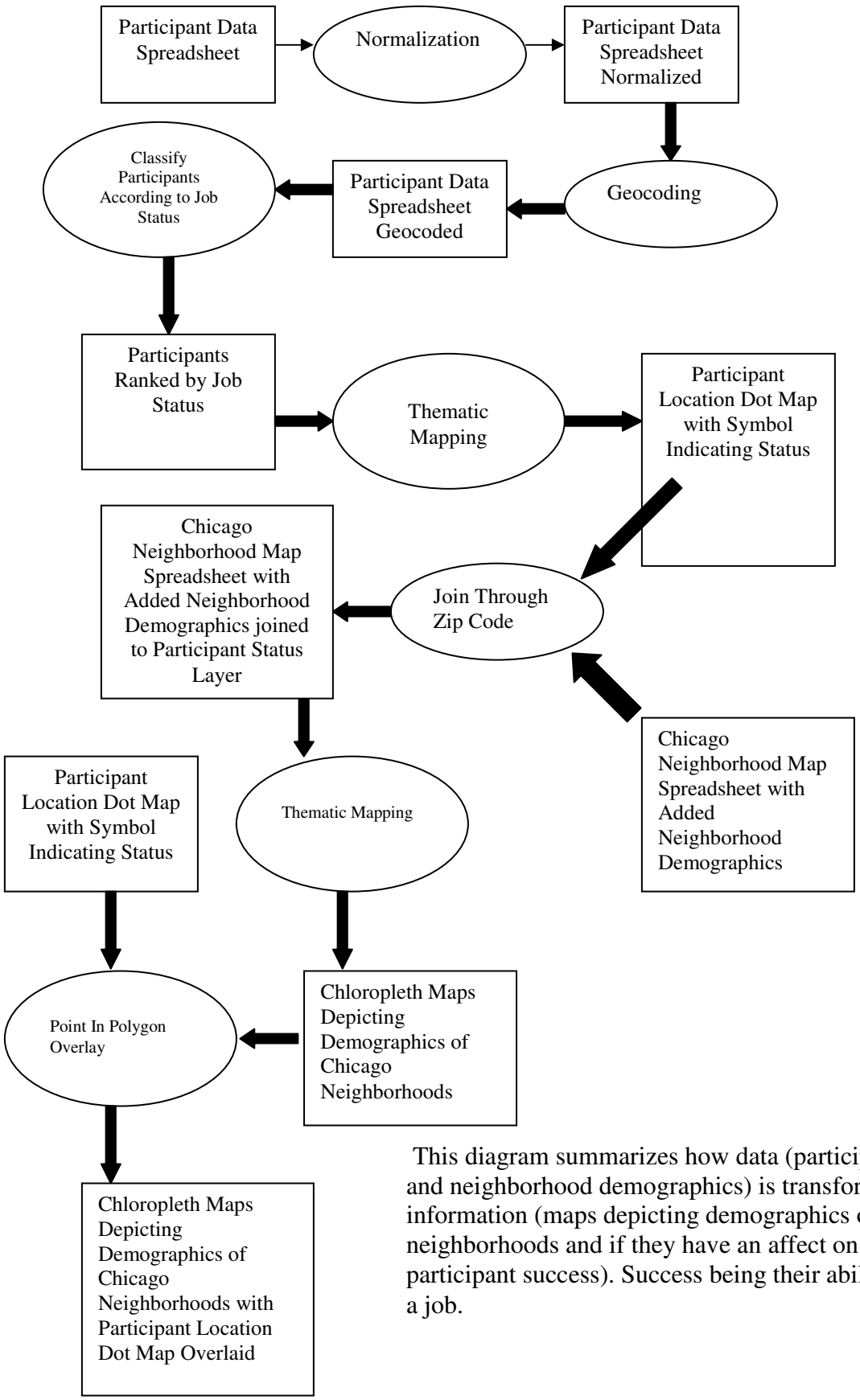
We did not have to convert any numbers, meaning we did not have to implement any scaling procedures. This means our scale remains the same and is appropriate.

The accuracy of our data is not what we had hoped for. We had to manually geocode 14 addresses, and most of the matches found in ArcMap were not very accurate matches. However, this is only 14 of the more than 80 participants who we have data for, so we were still able to produce accurate results despite this discrepancy.

The data we used is logically consistent because there are no apparent contradictions within the dataset.

Data Analysis

Data Process Diagram: Circles indicate an operation, boxes represent the object or layer, arrows indicate the data flow direction. This diagram describes the processes involved in creating thematic maps for neighborhood demographics and participants location.



This diagram summarizes how data (participant status and neighborhood demographics) is transformed into information (maps depicting demographics of neighborhoods and if they have an affect on participant success). Success being their ability to get a job.

Results

The results that were revealed had very distinct characterstics. The maps overall showed that the boot camp participants returned to some of the most problematic parts of Chicago that had high rates of crime, poverty and unemployment. The first map that revealed rate of non-violent crimes revealed that a great number of the participants were located in one of the community areas that had the highest crime rates, Austin. The same could be said for the violent crime rate, poverty rate, and unemployment rate. Most participants could be located in Austin, which happened to have some of the highest rates in the city for each category. There were some unexpected findings however. Those unexpected findings were where the participants relocated. If one observes the maps it can be seen that all the participants live in somewhat of a pattern with a few expectations. The pattern in general pertained to the participants being located from the south to the western extents of the city. If one looks like at the maps they almost seem to form clusters in various points of the west and south side. When it comes to the northwest and north side there are no clusters of participants, and barely any overall in the general area. This shows how there is a geographic pattern among the participants and the direction that they head to after boot camp. Overall, we expected some participants to be in community areas that were high in crime rate in poverty, but we did not expect most of them to be in that situation. For the crime rates the City of Chicago Police Department website was helpful, because it also had comparable GIS maps that showed the number of crimes in per each community area. The GIS police website allows the user to look at the number of crimes by category, and by timeframe. Different periods of time could be seen, such as one month to a year. It was also good to use as a reference to compare our maps with that of Police Department's GIS maps.

Conclusion

The main purpose for this project was to understand where the boot camp participants relocated upon their release and if there were any characteristics of those areas that were similar to each other. In this project we were able to show that there is a pattern and similarities of where the participants go after boot camp. It can be seen that there are social, economic and urban characteristics that these community areas share in similarity. The research goal was met because we are able to analyze that the community areas the participants moved into were clearly not ideal environments because of the high rates of the chosen incidents. The approach that was taken was very effective because it can be understood by variety of people, and it can be deemed logical as to why the participants are where they are. It possibly would have been better if data were available of where the participants lived prior to the boot camp. This would allow for deeper analysis to see if participants are returning to the same environments that they came from before boot camp.