Mapping Affordable Housing in Chicago

Lakeview Action Coalition

Dan Cameron, Dan Wood, Hanan Farhan, Kevin Pinkley, Rebecca Son

GEO 242

3/20/13

A. Project Summary

The main goal of this project was with the creation of maps help address the location and common factors that play into single room occupancy housing (SRO'S) in the Chicago land area. This project was aided with the resources and guidance from the Lakeview Action Coalition (LAC) to help their nonprofit organizations. As a nonprofit organization their access to GIS mapping technology is limited, our group's job was to use the skillset we have developed to create maps for the company. The maps that where created would show the location of housing that is affordable for the non-market rate community as well as show the demographics of the area where these are located. Throughout the project's completion minor issues popped up both with data and shapefiles for the creations of certain maps. Some of the data received by LAC had to be clean and reorganized in order to be implemented into ARCmap, which is the program used to create the maps. Examples being the use of symbols (\$,/,.) all had to be removed from titles and numbers throughout datasets. The format of the data received had to be organized to a constant alignment in the data sets or geocoding would fail and addresses would be erased. Only one table needed a lot of work with the creation and organization of over 600 housing addresses. Lastly major issues we had were combining our datasets to some of the shape files of Chicago due to a lack of a common field between the two. All of these issues were resolved by the end of the project and all maps created.

The results of our research help show the location of all types of housing across the Chicago land area. After the creation of our six maps we found that SRO's are primarily located on the north and west side of the city as long as affordable housing including CHA units. While on the other hand the location of low income trust fund housing was primarily located in the south and west sides of Chicago. When we look into the demographic maps and income levels on can start to relate why this is happening. Where lower income is located generally higher amounts of trust fund housing is also located in that area. Furthermore, when average household income is high you tend to see more SRO's and CHA units. This being said the results will help LAC present a clear and concise case to the alderman on the state of affordable housing in the Chicago land area with a clear message on SRO's in the Lakeview and surrounding neighborhoods.

In total we made six maps that collectively place salience on the need for affordable housing in Chicago. Pages 17 through 23 show SROs, LAC member institutions, affordable housing in lakeview, geographic distribution of race and income in Chicago, and finally low income trust fund map. The SRO map illustrate the disproportionate number of SROs are located in the Northeastern side of Chicago. Based on the Lakeview affordable housing map and low income trust fund map, SROs are one of the few options for affordable housing in gentrified wards of Chicago. The demography map illustrates these same gentrified neighborhoods are predominately higher mean income levels, and white in relation the rest of Chicago. The collection of these maps, shows that northeast side of Chicago primary option of affordable housing boils down to SRO housing. Our literature reviews, individual research, and interview with LAC provided the context of spatial distribution, or lack thereof, of affordable housing in Chicago. Private developer's efforts to "progress" and "improve" these neighborhoods has been equated to the shut down and converting of SRO into condominiums.

Based on our map, the closure of SROs will internally displace marginalized populations in Chicago because outside the northeastern part of Chicago affordable housing options are far and few in between. Political figures need to address displacement of populations in Chicago because if SROs are to shut down what is the happen to these populations? Should the resources of state

institutions (i.e. homeless shelters) bear the overflow of the homelessness so that private investors can continue to make profit? Private developers are profiting by shifting the responsibility of affordable housing at the expense of tax payers and state institutions.

Table of Content:

Introduction5
Needs Assessment5
(I)LiteraturReviews5
(II)Objectives6
(III) Information Products
System Requirement9
Data Acquisition11
Data Analysis and Visualization14
Results
Summary, Conclusion, and Recommendation
Technical Appendices

Introduction

Lakeview Action Coalition

The Lakeview Action Coalition—abbreviated as LAC—is a nonprofit community organization made up of 49 institutional members that are focused on issues facing the communities of Lakeview, Lincoln Park, and North Center. Founded in 1993, LAC fights for justice, solidarity, and diversity by mobilizing communities put pressure upon political leaders to address issues of affordable housing in Chicago, particularly on the city's north side.

The stakeholders in this community organization include religious congregations, non-profit agencies, banks, business associations, a credit union, and a senior citizens caucus. Leaders in the organization present visual data and statistics to local alderman to fight for justice in Lakeview, Lincoln Park, and North Center under four domains: affordable housing, health care, homeless youth, and economic justice.

Our goal for this project is to provide LAC with five maps with the intention to be presented to the alderman and other political figures in Chicago. More specifically, our goals for the project are to create four information products that reflect the inequity of affordable housing. Apart from the former, we will be including one information product that shows member institutions for LAC. In doing so, LAC provided our group with data and in turn we have created five maps: SRO locations, low income trust fund locations, affordable housing in/around Lakeview, member institutions, and finally a race/income demography in Chicago. The broader purpose of these information products is so that LAC can used visual data to place salience upon political leaders for issues of affordable housing in Chicago and its relation to socioeconomic inequities.

The rest of the reports will discuss our needs assessment that explains our group's original goals to accomplish. In addition, it will discuss the context and broader purpose of affordable housing through literature reviews. We then will discuss the process of how we used the given data provided by LAC to create the information products. From there, we will examine the results of the information products and discuss patterns and trends we can abstract from the results.

Needs Assessment

To continue to advocate specifically for more affordable housing in these north-side neighborhoods and for the city as a whole, organizers Hannah Gelder and Mary Tarullo seek a series of GIS-based maps. The maps are intended to provide a visualization of the current state of affordable housing in the city, and more importantly, to demonstrate the need for a more just, equitable, and affordable city. The produced maps are to make this clear to local aldermen as the process of gentrification threatens affordable housing sources such as subsidized housing programs and single-room occupancy hotels (SRO's). The organizers also need a map of LAC's coalition members as a reference source for future organizing. Also, the director requested a general demographics map of race and income in Chicago for future reference purposes. Our group thought it would be important to highlight and discuss the issue of affordable housing in Chicago through the examination of literature reviews.

I. Affordable Housing Literature Review

Affordable housing in Chicago comes from a number of sources such as rental subsidy programs, public housing, and SRO's, each of which serve unique needs for the most marginalized communities in the city; they also can stimulate and revitalize neighborhoods. The Illinois Housing Council in Chicago highlights concerns about the city's lack of affordable housing in the face of high unemployment rates and job losses while emphasizing how state and federal housing programs are beneficial to the Illinois Economy. For example, the HUD housing programs and the Low-Income Housing Tax Credit create many different types of jobs (white, blue, and green collar jobs) and generate tax revenues which are pumped into local businesses and economies. The impacts of these programs are very profound and beneficial to the families and elders renting them, and to local economies (Illinois Housing Council).

Initiatives taken by the city of Chicago to secure affordable housing especially include the Affordable Requirements Ordinance and the Chicago Low-Income Housing Trust Fund, which often function together. The ARO mandates that at least 10% of units in all housing developments of 10 or more units must be affordable for lower income residents. In the latter, the city has also established a trust fund program that provides rental subsidies to developers housing low-income residents who receive less than 30% of the local area income; this ensures that rents remain affordable (City of Chicago, 2013). Theoretically, this creates large benefits for the most impoverished communities; however, challenges to affordable housing are present.

Unfortunately, as days pass more and more SRO's are bought up and put into the process of creating market rate housing. The Chateau Hotel was recently bought in the 46th district by a buyer by the name of Jamie Purcell. Research has shown the Purcell has purchased several SRO's in the area over the past years. As these locations are being bought the displacement of the current occupants is of utmost importance. Focus is put on the alderman of the 46th district James Cappleman as of what is to become of the Chateau Hotel and why this change is happening. Being a part of capitalist world money can be a large influence in the change of an area. Purcell as offered to buy the location; in doing so will flip the location to make a large profit for market rate renters and buyers. How people who are kicked out of their homes can be tossed around and forgotten is a scary site. One hundred people could now be going homeless from one SRO going under. The impact of these establishments may not be a large gain in profit but are incredibly important to any city (Ambrosius 2013). Some cities have made an intentional effort to preserve SROs.

City officials in Costa Mesa, California have recognized the shortage of affordable housing in Orange Country. They recognize that cities with a high commercial activity and economic growth will need maids, janitors, and working class people to cater to these industries; equally needing access to affordable housing. Costa Mesa city officials have actively built and renovated SROs so that the working poor populations have access to safe, clean, and affordable housing (Hamashige 1995). The Costa Mesa case illustrates how the acceptable of an economically marginalized population are an inevitable and functional purpose in cities. Chicago officials can look to the Costa Mesa to gain perspective on the need to preserve affordable housing in Chicago.

After meeting with LAC leaders and reading literature reviews, we created objectives for our project and how we would accomplish these objectives. Secondly, we clearly state the details of the information product.

II. Objectives

- 1) Determining Geographic Distribution of Affordable Housing
- · Gather and organize attribute data from LAC for: low-income trust fund housing in Chicago, single-room occupancies in Chicago, and general affordable housing locations in Lakeview, Lincoln Park, and North Center
- · Obtain shapefiles that correspond with provided attribute data such as Chicago City Wards, Chicago Community Areas, and Cook County Census boundaries
- · Join affordable housing attribute data to corresponding shapefiles
- · Geocode corresponding addresses to produce low-income trust fund housing map, SRO's map, and a map of general affordable housing units in Lakeview, Lincoln Park, and North Center
- 2) Illustrating the Need for Affordable Housing and the Preservation of Existing Units
- · Obtain census data of poverty levels and/or population density to be overlaid with low-income trust fund housing locations
- 3) Providing a Map of LAC's Member Organizations
- · Obtain and organize attribute data of LAC member organizations
- · Obtain corresponding shapefiles
- · Geocode addresses to create reference map
- 4) Providing General Purpose Demographics Map of Race and Income in Chicago
- · Obtain U.S. Census Bureau 2010 data on race and income
- · Obtain corresponding Cook County Census Tract shapefiles
- · Join attribute data to spatial data to create demographics map

III. Information Products

We will create five different types of maps for our clients. Each map will have 2-5 "sub-maps" zooming in on certain wards specified by our clients. They are as follows:

- 1) Low Income Trust Fund Housing Map
 - a. Goal: show the lack of Trust fund units in LAC's wards
 - b. City wide map and individual maps of wards 44, 43, 32, and 47
- 2) Single Room Occupancy (SRO) Map
 - a. Goal: show where SROs are located to show why we need a city-wide SRO preservation and show how many SROs have been purchased by Jamie Purcell
 - b. City wide map and individual maps of wards 44, 46, 32, and 48

- 3) Neighborhood Affordable Housing Maps
 - a. Goal: help LAC track affordable housing buildings in our neighborhoods
 - b. Individual maps for Lakeview, Lincoln Park, and North Center
- 4) LAC Institution Members Map
 - a. Goal: Show LAC's members
 - b. city ward, county districts, IL state house and senate districts, and federal congressional district lines on the map as well as community area lines (like Lakeview, Lincoln Park, North Center)
- 5) Demographics Map
 - a. Goal: Serve as general demographics reference for Chicago
 - b. Census demographics of Rogers Park, Edgewater, Uptown, Lake View, Lincoln Park and North Center

Systems Requirement

Lakeview Action Coalition's primary need is to locate and visualize affordable housing throughout Chicago, with a particular emphasis on the Lakeview community area. They also are in need of a demographics map of race and income and a map of member institutions for reference purposes. We agreed upon the creation of 5 maps to meet these needs: a city-wide low-income trust fund housing map, a city-wide SRO housing map, a map of affordable housing types in Lakeview, a demographics map of race and income by community area, and a map of LAC's member institutions. These information products will reveal the distribution of affordable housing for the purpose of communicating housing needs to local aldermen and/or serve reference purposes.

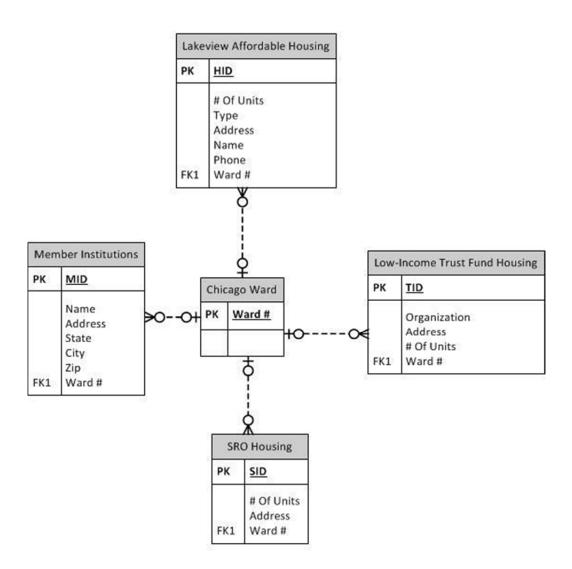
Our processing requirements include the data collection of relevant names, addresses, housing types, and organization types and then locating them geographically. This relates back to the client needs in that it will illustrate the geographic distribution of affordable housing, the need for affordable housing and the preservation of existing units as well as identifying member institutions location and the demographics of race and income. These ERDs (Entity Relationship Diagrams) will help us visualize and consider the attribute data, entities, relationships and cardinality relationships to analyze relevant data. Our processing requirements will give us a step by step outline of how to plan our data for mapping.

Processing Requirement:

	Spatial Data	Attribute Data
Data Manipulation (editing)	Clean Data, separate addresses into (address, city, state, zip code) own field	Delete useless data Table join

Data Collection (input)	Data Transfer (download and convert to database file)	Geocoding Table join
Data Analysis	Spatial query	Attribute query
Data Visualization	Choropleth Map, Proportional Symbols, Geocoded Point Data	Graphing

P2 Lakeview Action Coalition Entity Relationship Diagram





Data Acquisition

In this section we will discuss the data sets that will be used in detail. When looking at our previous ERD completed on page nine, we gained an understanding as to how each data set will relate to others in the creations of all specific maps. The data dictionary, fitness for use, and data acquisition will promote an even clearer understanding on what will be needed for the final product. It is important to understand the quality and accuracy of all data types and know how it will be implemented.

I. Data Dictionary

- 1) Single Room Occupancy Map-SROLocation.xls
 - a. Description: This data contains the address of single room occupancy housing in Chicago wards.
 - b. .Source: Organization, Hanna Gelder, 847-219-5062, http://www.lakeviewaction.org/
 - c. Processing Steps: We had to add zip code, state, and city in order to properly geocode the address onto ArcMap. Geocodes address and ensure match is completed.
 - d. Spatial Object Type: Point
 - e. Attributes: Name, Address, City, State, Zip Code, Ward.
 - f. Data Format: excel file to be formatted to .csv, Geodatabase
- 2) Low Income Trust Fund Housing ChicagoLowIncomeHousingTrustFund.xls
 - a. Description: This data contain the address of trust fund units in Chicago.
 - b. Source: Lakeview Action Coalition, Hannah Gelder, http://www.lakeviewaction.org/
 - c. Processing Steps: We had to add zip code, state, and city in order to properly geocode address onto ArcMap. Geocode addresses and ensure match is completed.
 - d. Spatial Object Type: Point
 - e. Attributes: Address, Annual Subsidy, Subsidized Units, Income Level Served, Ward #, Community Area #, Community Area Name
 - f. Data Format: excel file to be formatted to .csv
- 3) Lakeview Affordable Housing- Neighborhood Affordable Housing.xls
 - a. Description: this data contains the location of all SRO, section 8 housing, and public housing, and transitional housing throughout Chicago.
 - b. Source: Lakeview Action Coalition, Hannah Gelder, http://www.lakeviewaction.org/
 - c. Attributes: Name, Address, Affordability: Specific type of affordable housing (SRO, CHA, etc.), # of Units
 - d. Data Format: excel file to be formatted to .csv
- 4) Race and Income Demographic Map- Demography.xls
 - a. Description: Census data obtained from US Census Bureau digital database for Cook County including information of FIPS State, County, Tract, Block Code, and demographic characteristics
 - b. Source of the data: US Census Bureau Census 2010, Gateway http://www.census.gov/2010census/

- c. Processing steps: census data in tabular format was joined to census block cartographic boundaries files
- d. Spatial object type: polygon
- e. Attributes: Field name, Description STFIPS, State FIPS code, CTFIPS, County FIPS code, TRACT, Census Tract code, BLOCK, Census Block code, Race, Percent White, Income, Average Household Income
- f. Data format: Shapefile.

5) Lakeview Member Institution Map- LACInstitutionAddresses.xls

- a. Description: The names of LAC member institution and the second is the address of those places.
- b. Source: Lakeview Action Coalition, Hannah Gelder, http://www.lakeviewaction.org/
- c. Processing steps: In order to geocode this address, the addresses need to be separated into address, city, state, and zipcode. Then the file will be converted into a CSV format and then imported into ArcMap.
- d. Spatial object type: point
- e. Attributes: Institution name, Address, City, State, Zip code
- f. Data format: CSV file

Data Analysis and Visualization

The overarching goal of our GIS project is to reveal the spatial distribution of affordable housing in Chicago with a particular emphasis on the Lakeview community area. By mapping the locations of existing affordable housing including trust-fund units, SROs, and other types within the city and specifically within Lakeview, we intend to also reveal the need for increased affordable housing and the preservation of existing units. We will also locate LAC's member institutions and reveal the spatial distribution of race and income in the city for reference purposes. In order to accomplish these goals, we will primarily rely on geocoding and joins to reveal locations. Finally, to eveal race and income distributions, we will rely on data transfer, attribute joins, and spatial joins

Recap Information Products:

- 1. Affordable Housing Within and Around Lakeview
 - · Unique values map to show locations of affordable housing types (SRO, CHA, Trust Fund, etc.) within and in close proximity to the Lakeview community area
 - · This will help LAC to locate existing affordable housing by type in and around their community area
- 2. Demographics of Race and Income
 - · Choropleth map showing average household income by community area to show that affordable housing is uncorrelated with high white population.
 - · Choropleth map showing percent white by community area to show majority white areas have less access to affordable housing.
 - These maps will help LAC to argue the need for affordable housing in Lakeview and surrounding areas that is increasingly being turned into high end rentals/condos. These maps are intended to complement our other maps showing the locations of affordable housing.

3. Chicago Single-Room Occupancy Housing

- · Single-location point map showing the spatial distribution of SRO locations throughout all of Chicago
- · In addition, there will be four data frames that zoom in on wards 44,32, 46, and 48
- · Databases contain the location of known SRO location from LAC. The data frames that zoom in on the specific wards show the locations of SROs within the wards. [Editor's Note: we are consulting with LAC to make another map that shows a choropleth map to show certain wards have more of less SROs. However, we will have to wait for their response]
- The SRO information product will help LAC reveal how SRO locations are disproportionately located on the north side of Chicago
- · In addition, the data frames that zoom in on the specific wards illustrate the lack of SROs in these areas
- This map will help emphasize the spatial distribution, or lack thereof, of SROs in areas of Chicago. The need to know questions identified show where SROs are predominantly located and the concentration in SROs in gentrified neighborhoods. The loss of SRO in these areas will leave marginalized population to be displace because SROs are few and far in between in areas outside the northeast part of Chicago

4. Chicago Low-Income Housing Trust Fund

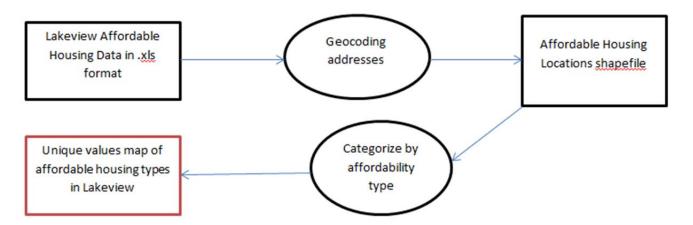
- · A map will be created from the database of addresses of the location of low income housing across the area. The addresses will be geocoded to show the location of each housing building on the map.
- This map will help the user/observer gain an understanding on the areas that have low income housing in the community. The importance this has can show where the houses are in abundance but also areas that are lacking or destroying these buildings.

5. LAC Member Institutions

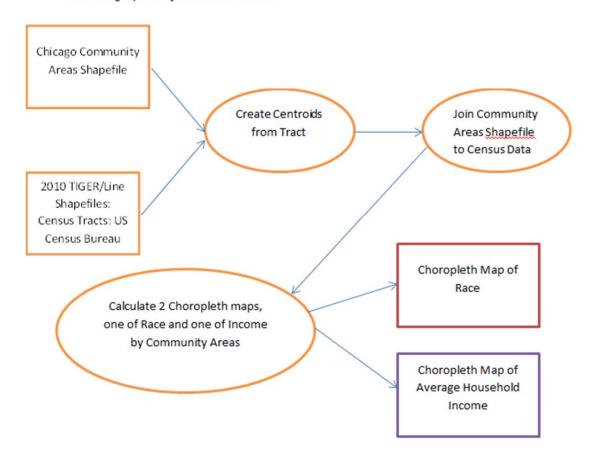
- · Map will show spatial locations of Institutions that are members of Lakeview Action Coalition.
- · Identifies different types of institutions (church, bank, school; etc) using different types of building symbols

Data Analysis

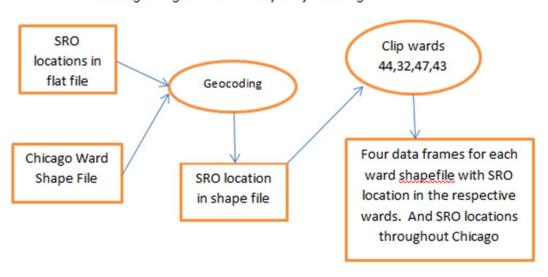
a. Affordable Housing Within and Around Lakeview



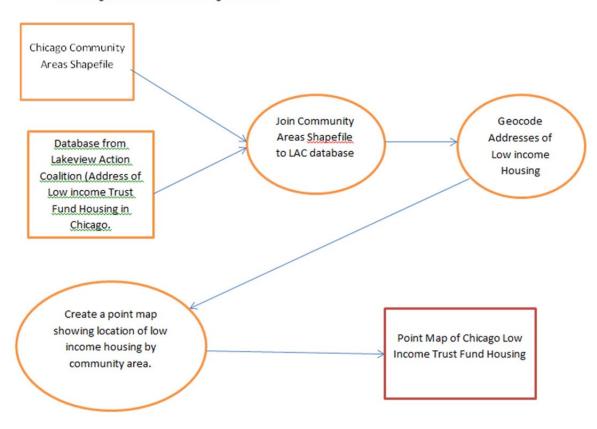
b. Demographics of Race and Income



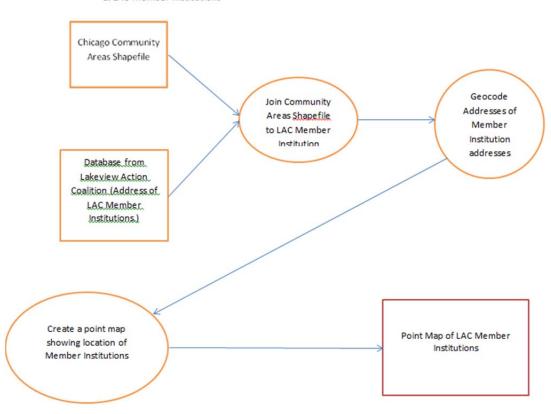
c. Chicago Single-Room Occupancy Housing



d. Chicago Low-Income Housing Trust Fund



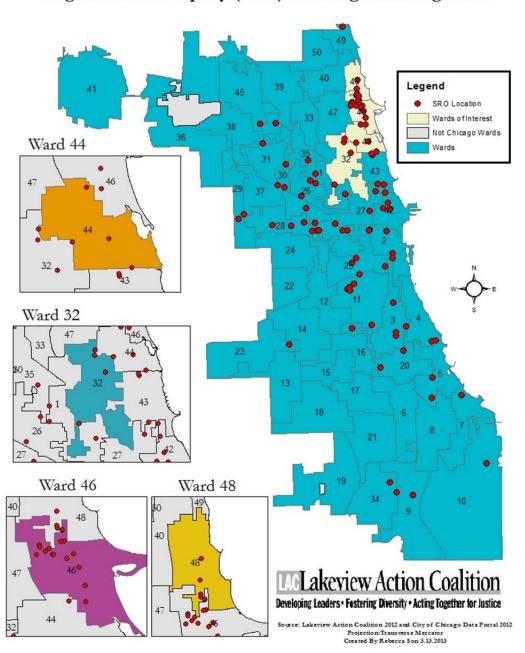
e. LAC Member Institutions



Results

1) Single Room Occupancy Map

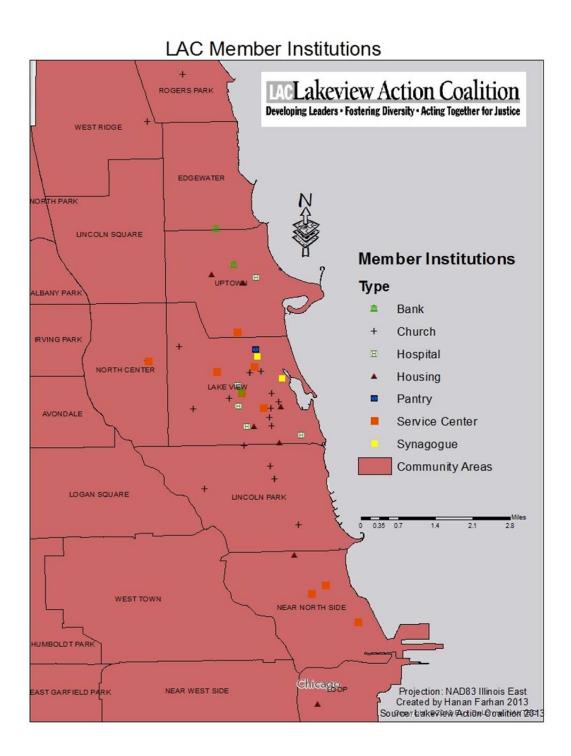
Single Room Occupany (SRO) Housing in Chicago 2012



The results of the SRO location map illustrates that a disproportional number of SROs are located on the Northeast side of Chicago; more specifically they are located in ward 44, 32, 46, and 48. Looking at the attribute table, after sorting, the largest numbers of SROs are located in ward 46(CCA Uptown). This is an interesting result because this ward, and most of northeastern side of Chicago, is subjected to gentrification in terms of affordable housing. This brings into question the

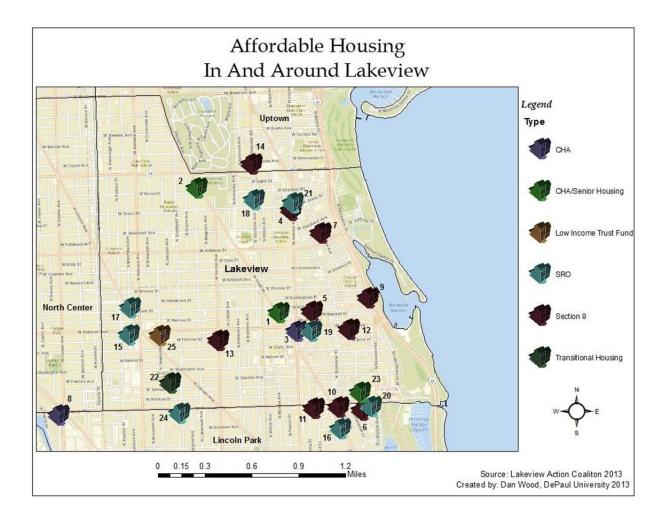
affordability of safe housing in geographic areas that are increasingly catering towards higher socioeconomic classes. This map is conducive to understand the context the increasingly closures of SRO housing in gentrified areas. This will displace marginalizing populations of safe housing options in Chicago.

2) Member Institution Map



This map displays the different types of Institutions that are members of Lakeview Action Coalition. The different types of Institutions range from Banks, Churches, Synagogues, Food Pantry's, and Service Centers.

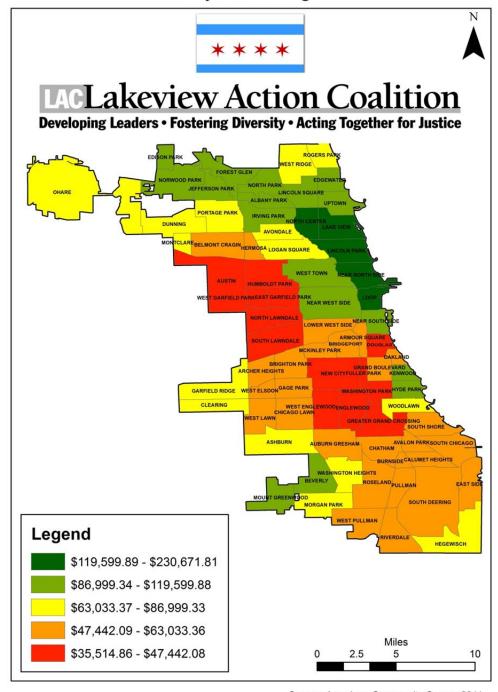
3) Affordable Housing in and Around Lakeview



This map reveals the locations of affordable housing by type in or nearby the Lakeview community area. According to the map, affordable housing in Lakeview consists almost entirely of single-room occupancies and Section 8 housing. This may raise concern as SROs are becoming increasingly purchased by private developers interested in creating market-rate condominiums. Furthermore, this map illustrates the current emphasis placed on providing affordable housing through private development as opposed to public projects: there are significantly fewer CHA public housing units in comparison to SROs and Section 8 housing.

4a) Demographic Map (Income)

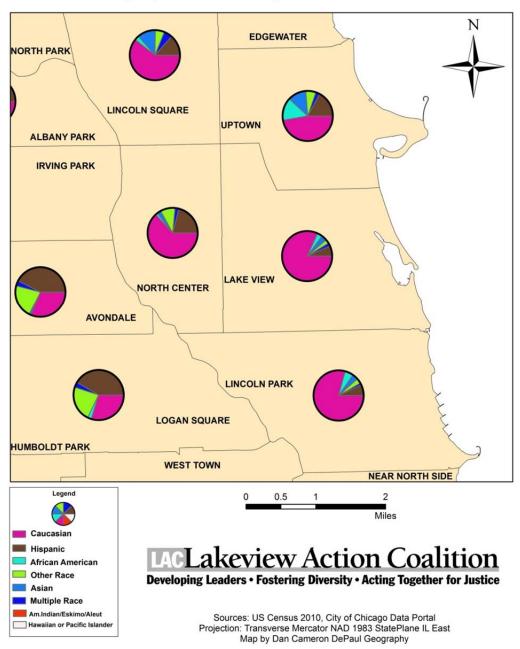
Average Household Income by Community Area 2011 City of Chicago



Source: American Community Survey 2011 Projection: Transverse Mercator NAD 1983 State Plane IL East Created by Dan Cameron

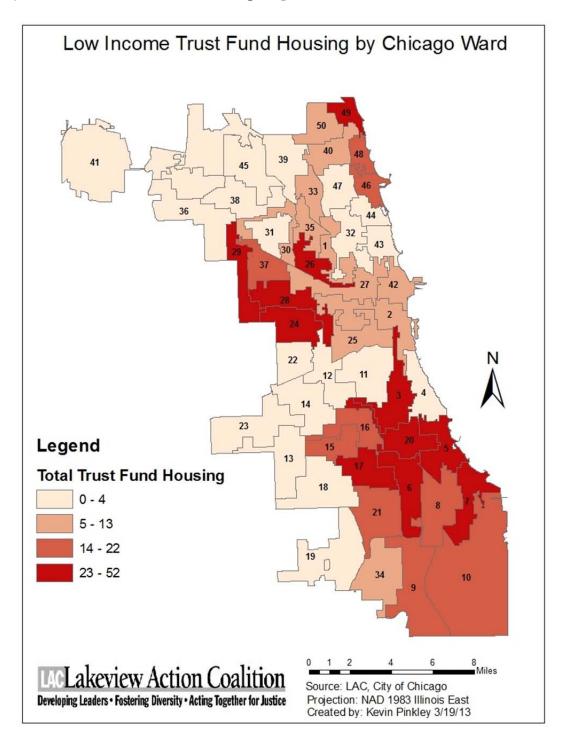
4a) Demography map (Race)

Racial Demographics of Chicago's Northside Communities



The demographics map showing pie charts of Chicago's north side communities successfully displays the racial makeup of each community area surrounding Lakeview. This map was created for the Lakeview Action Coalition to use as a reference for any causes they see fit. The map can easily be updated with new data or broken down into further detail if they prefer to just map at the census tract level.

5) Low Income Trust Fund Housing Map



This map shows the location of low income trust fund buildings by Chicago Ward. The total count of buildings by ward is indicated by the darker shades of red for the higher count while lighter for the lower. One can see that the areas south and west of the city have higher levels of trust fund housing available. There is a pocket in the 47th, 44th, 32nd, and 43rd ward that show little to no trust fund housing available. Around those areas higher levels surround it. Neighborhoods such as

Lakeview, Lincoln Park, and Wrigley Ville are a part of these wards. When comparing the trust fund housing with topics such as SRO's from our other maps it is interesting to see different housing in different wards being available. In conclusion the areas south and west of the city have the greatest number of low income trust fund housing available.

Summary, Conclusion, and Future Recommendations

In sum, we created six maps for the Lakeview Action Coalition to advocate the need for affordable housing and to look into the accessibility of affordable housing in Lakeview and its surrounding communities. These maps were created for several reasons. The demographic and income level maps were produced to show that affluent and predominantly white communities do not provide less access to affordable housing (outside of the endangered SROs). The low income trust fund, SRO, and overall affordable housing are increasingly being bought up by private developers. The maps starkly show that affordable housing is not practically outside the northeastern side of Chicago. If SROs and other forms of affordable housing are to continuously "develop" to market rate condominiums, what is to happen to working class populations? Is spatial equity, or inequity, representative of how political institutions view "productive" citizens? This calls to question the spatial hierarchy that prioritizes and marginalizes communities in gentrified neighborhoods of Chicago. The anticipated loss of these types of affordable housing by private investors will displace and further marginalize low-income populations. The maps were intended to be persuasive enough to present to local alderman on LAC's behalf so as to advocate the need for and the preservation of affordable housing.

Our research goals of producing easily interpretable maps to determine the geographic distribution of affordable housing by mapping low-income trust fund housing, general affordable housing, SROs, and a map of LAC organizing members' locations were successfully produced. Maps produced showed an uneven distribution of affordable housing throughout the City of Chicago and showed some Wards or Community Areas to be completely absent of SROs. We also added demographics maps of race and income levels to the project to show that predominantly white/affluent communities have less affordable housing access. This is a real problem and is only being exacerbated because of developers buying SRO locations and turning them into luxury condos in the wealthy Wards. The people living in affordable housing within these affluent communities are then forced to relocate, usually to areas of higher crime and longer commute to their jobs. Lakeview Action Coalition is dedicated to the preservation of affordable housing in these affected communities.

The SRO, Low Income Trust Fund Housing, Affordable Housing, and LAC institution maps all needed to be geocoded after the data was cleaned. The demography maps needed the census tract shapefiles joined to the data tables. From there, they needed to be spatially joined to community areas. Prior to the join, centroids were created from census tracts to determine which community area a given census tract would fall into. Both demographic maps show the majority white and high income level communities are the areas LAC is most interested in preserving affordable housing.

Other than the low-income trust fund housing data problems we encountered, the methods we used were effective because we took the time to plan who was going to clean which data set and estimate the amount of time it would take. Since we started the process early on with attention to detail, we were able to help each other troubleshoot similar geocoding problems and the process went smoothly. After many hours of troubleshooting, we figured out there were multiple lines in

some of the columns and ArcMap only looks at the top line to geocode. This is what was producing missing values for addresses, so we had to go through and delete every cell with multiple lines.

The main recommendations for Lakeview Action Coalition would be to keep the databases updated and organized. What took the most time was organizing the data so it was compatible to geocode in ArcMap. In future files, we need to have separated data for address, city, state, and zip codes placed into separate columns. Also, we need to have all similar data on one excel sheet rather than spread over multiple sheets. Also, demographic maps will change from year to year, usually nothing drastic though. Updating the maps every 5 years would be appropriate to understand demographic changes happening around Lakeview.

Our group will keep all data related to this project and would not mind making minor adjustments if Lakeview Action Coalition needs to zoom in on a different Ward of Community Area for an upcoming meeting. These are minor changes that will take minimal time now that the data is mapped. These maps can be proudly displayed on the organization's website, Facebook, twitter, meetings, or newsletters. The purpose of the maps is intended to be distributed to the public. All in all, it was a pleasure working with Lakeview Action Coalition and we wish them the best of luck using our maps to fight for social justice in Chicago Communities.

8. Appendices

Appendix A

Data from Chicago

Chicago Community Areas

Chicago Ward Boundaries

Cook County Census Tract Boundaries

Cook County Census Data

data.cityofchicago.org

Appendix B

Data from Lakeview Action Coalition

Low Income Trust Fund Housing Data

SRO Data

Lakeview Affordable Housing Data

Lakeview Action Coalition Member Institution Data

Contact:

Mary Tarullo

Email: mtarullo@lakeviewactoin.org Phone: 773-549-1947

Hannah Gelder

Email: hgelder@lakeviewaction.org Phone: 773-549-1947