

Neighborhood level amenity inventory  
to support creation of complete neighborhoods

by

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## **Abstract**

As the city of Greeley grows, some older neighborhoods are experiencing high resident turnover, a lack of care for the community, and an overall decrease in resident wellbeing. When residents like their neighborhood they tend to treat it better. Bai et al. (2020) found that nearness to the metro station and central business district affects resident enjoyment of their community and housing prices. In this project I develop a tool using Google Maps and GIS to inventory Greeley neighborhood's distance from amenities that are shown to be important components to complete neighborhoods in various scholarly journals. With this research, the city planning team can identify missing resources for struggling neighborhoods and use zoning and economic development strategies to bring those elements to that neighborhood. The tool highlighted neighborhoods with low access to amenities around the outskirts of the community and found that the highest access to amenities is in downtown Greeley and near Highway 34. There appears to be little correlation between known wealth of a neighborhood and access to amenities. A deeper look showed that library access is lacking in the middle of the city and that ethnic grocery stores closed gaps left by lacking mainstream grocery stores. Future research can look at demographic data from these neighborhoods and city comparisons to further predict neighborhood needs.

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## **Introduction**

Many scholarly journal articles refer to a concept of sustainable, self-containing neighborhoods with specific requirements as a key to a successful and complete community. Common themes around these neighborhoods were that they had mixed use spaces, they incorporate the environment, and they reduce the need for travel by car. The city of Greeley, Colorado is growing rapidly. Some growth is concentrated in newer areas of town where infrastructure, housing, shopping, and industry grow together influenced by planned development. Other areas of town experience rapid growth in the middle of an already established neighborhood. These areas bring more complexities to community level planning as practitioners need to assess conditions and decide where to add infrastructure and how to plan for the mixture of old and new elements. According to Greeley city planners, some highly populated, old neighborhoods are struggling to maintain housing value and are experiencing a decline in overall quality. Greeley's rapid growth gives city planners the opportunity to revive these neighborhoods that have fallen out of favor. City planners can capitalize on the momentum by ensuring the presence of the elements of sustainable and complete neighborhoods. With careful planning, these areas can become vibrant community centers while still supplying housing for an array of incomes in the community.

## **Purpose**

Considering Greeley's rapid growth and some neighborhoods struggling while the rest of the city grows, I ask the question, how can planners restore a sense of care for one's community to those struggling neighborhoods? Since new businesses are growing rapidly in Greeley, can the city plan to place neighborhood elements in strategic locations to influence these out of favor neighborhoods to feel greater attachment to their community? This project will inventory

amenities around the established neighborhoods in Greeley to see which neighborhoods have good access to community elements and which ones need further attention. With the hypothesis that a few small adjustments to amenities in the city could greatly increase neighborhood wellbeing, this study has the potential to influence residents' satisfaction and attachment to their community in the future. This question is important because one of the planning department's goals is to focus on forming complete neighborhoods. This analysis can lay the framework for how to bring the community's already established neighborhoods into that plan.

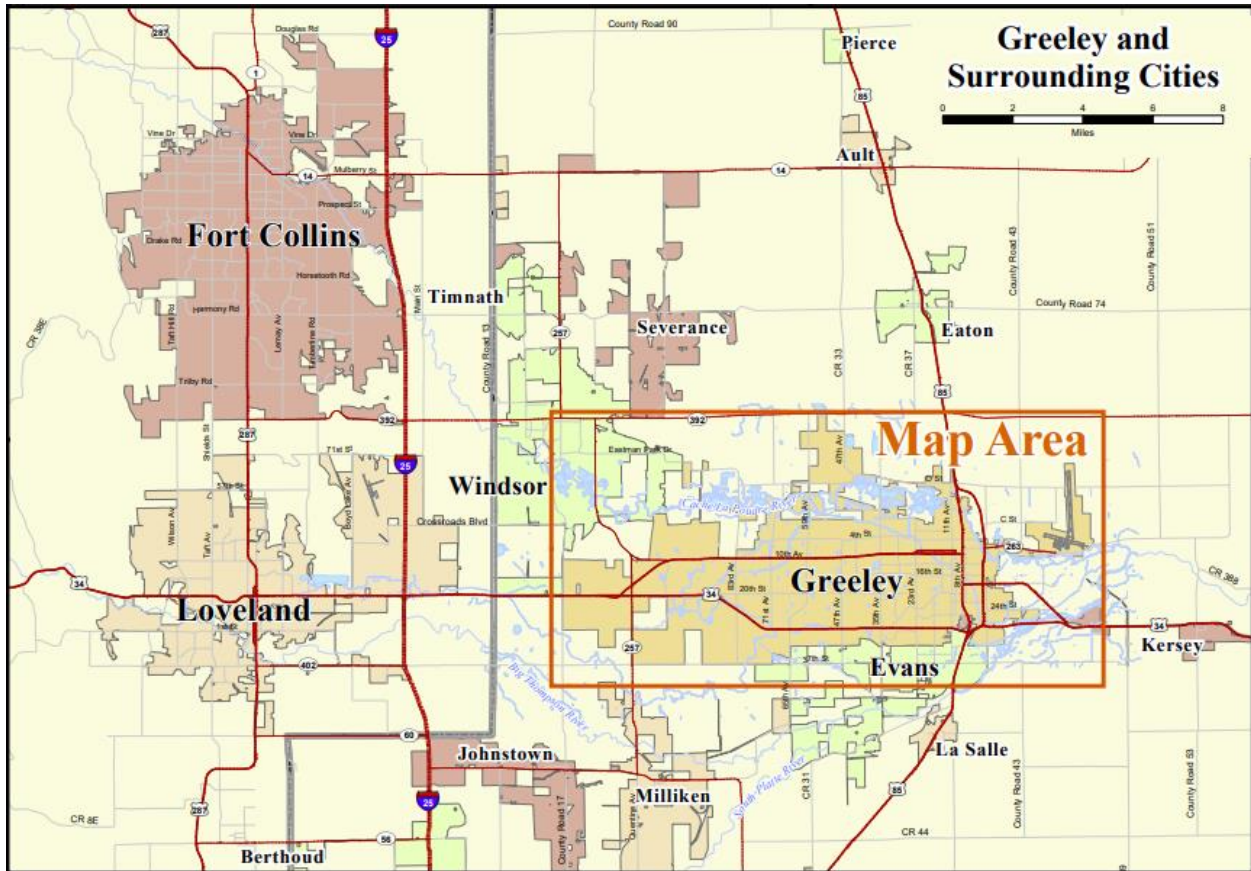


# **Background**

## **Greeley, Colorado: Community Description**

The city of Greeley, Colorado was founded as Union Colony in 1869 by Nathan Meeker as a utopian agricultural society that took applications for membership and valued temperance, religion, agriculture, education, and family values (Watrous, 1911). The name was later changed to Greeley to honor the founder, Nathan Meeker's editor from the NY times Horace Greeley. Greeley sits in the county seat of Weld County. With bountiful room to grow, a diverse population, and two colleges that work together to feed into the community and local businesses, Greeley, CO is the perfect place to invest in new business and housing. Greeley's population of 109,323 and area of 48.93 square miles, makes it take up one eighth of the land and one third of the people in Weld County (US Census Bureau, 2021). Greeley is the large city that functions as the central market in Weld County, with towns of varying sizes making up the intermixed web surrounding the city. The larger communities around Greeley include Denver, 50 miles southwest, and Fort Collins, 25 miles to the northwest. While Greeley has a buffer of country farmland on most sides, it converges to the south with Evans, CO, a town of 22,296 people and 10.18 square miles (US Census Bureau, 2021). On the southeast corner, completely engulfed by the city of Greeley is Garden City, a ten-acre area that is mostly home to restaurants, bars, and dispensaries. It was created in 1935 after Greeley voted to prohibit the sale of liquor, as a little form of protest from some residents (Town of Garden City, n.d.). Figure 2.1 shows the city of Greeley and the cities that surround it.

Figure 2.1. Greeley and Surrounding Cities (from [City of Greeley](#))



The city's growth closely followed Rostow-Kuznets stages of economic growth (Shaffer et al., 2004). The city started as a farming community and established itself with basic commerce and agricultural goods sales. This set the preconditions for takeoff. The city then expanded into more advanced agriculture and eventually meat processing. Economies of scale formed with the sugar beet industry and then with cow farming and meat processing. Wealth accumulated and people were able to make bigger investments and grow the town. Now the largest employer in Greeley is JBS, a very large meat processing plant that employs over 4,500 people, mostly immigrants. The next largest employer is the local university, the University of Northern Colorado, a huge asset to the community. The university is known for its programs in business,

teaching, nursing, and theatre. Other employers include Aims Community College, two hospitals, the school district, the City of Greeley, Hensel Phelps, and State Farm (Greeley Area Chamber of Commerce, n.d.). Many Nonprofits call Greeley their home. They work on behalf of immigrant and refugee populations, people experiencing homelessness, health care access, and women's shelter/aid to survivors of sex trafficking. Because JBS attracts many types of immigrants, Greeley is one of three cities in Colorado that participates in the United States Refugee Resettlement program. In addition to the large Hispanic population, Greeley is home to refugees from Somalia, Burma, the Democratic Republic of Congo, and Eritrea to name a few.

Greeley has made great progress in embracing culture and art in recent years. Greeley's downtown has embraced artwork in the form of murals and statues. The downtown has hosted weekly "Friday Fests" with live music for the last five summers. The Arts Picnic and Oktobrewfest celebrations have become a tradition in the city's downtown park (Otto, n.d.). Additionally, the Greeley Multicultural Festival has existed for four strong years, and the Greeley Stampede is a fair and concert series that is the longest standing tradition of the town. It has existed since 1922 and shows that even though the city has become less rural, it still carries that farming culture of a town built on agriculture (Greeley Stampede, n.d.).

## **Literature Review**

### **Complete Neighborhoods**

This review of literature on neighborhood level planning revealed strategies for decision making based on observed development trends. Many scholarly articles mention some sort of community gathering space in their research. Each author develops their own unique term for this concept, but for the purpose of this project, I synthesize their ideas to come up with the elements that constitute a "complete neighborhood." Despite the lack of a common term, most

researchers agree on the importance of certain elements within neighborhoods. Medved (2016) stated that “neighborhood community centers” were located at the core of a neighborhood, had access to public transport, served as a reference point for the community, and had a point person to help solve community member problems. Kader and Mahmoud (2019) identify “urban nodes” as walkable, dense, multi-use areas with food, shops, and recreation. Larsen did not identify this concept as being located in one central place but rather described a neighborhood design style called “new urbanism” that incorporates, “front porches, and revival elements; urban design integrating density, streetscapes and open space; and land-use decisions resulting in a mixture of uses, income and tenure with transit stops dictating more intensive activity nodes,” (2005, p.797). Farhadikhah and Ziari (2020) described a similar design style and termed it sustainable development. The measures they used to gauge a neighborhood's sustainability were resident participation, sense of security, sense of place, and access to services. The services included educational, health, recreational, public transport, shopping places, and emergency services.

Bai et al. (2020) did not come up with a term for this concept, but instead pointed out a conflicting datapoint on access to these amenities. They used both public opinion and housing prices to determine important neighborhood attributes to residents. “The results showed that both access to metro stations and median household income had important influences on residents’ preferences and housing prices. However, access to the central business district contributed largely to housing prices but not to residents’ attitudes,” (Bai et al., 2020, p.1). This finding conflicts with other previously mentioned researchers’ value on shopping locations being central to neighborhoods.

## **Considerations for Planning Decision Making**

The related literature revealed several neighborhood dynamics to consider when planning for a complete neighborhood. These common themes include identifying potential community gathering spaces, accounting for the environment and geography, and assessing neighborhood demographics.

### **Potential Community Gathering Spaces**

To begin, research on neighborhood level planning often mentions community gathering spaces as the principal element in creating a complete neighborhood. Common themes for these spaces are that they are mixed use, they incorporate the environment, and they reduce the need for travel by car. Medved, who called these spaces Neighborhood Community Centers (NCC's), said that all NCC's had "social, sport, and cultural space," (2016, p.164). A strategic planning technique would be to map out the different aspects of community gathering places such as public transportation centers, markets, playgrounds, etc. and to identify areas that have some but not all of the aspects needed for a complete neighborhood gathering space. Planners could then make decisions to add elements to encourage utilization of that area.

Another way to identify future gathering centers is to look at growth patterns. Larsen (2005) and Meltzer and Schuetz (2012), both identified that areas with high levels of growth need special attention. Meltzer & Schuetz (2012) identified that retail growth was fastest in neighborhoods that initially had lower retail value and that housing prices tended to increase more rapidly. Lower income neighborhoods that start to experience rapid growth will need special attention because the amenity expenses could outpace resident income.

## **Geography and Environment**

Both Kader and Mahmoud (2019) and Coutinho-Rodrigues, Simão, and Antunes (2011) considered environment and spatial dynamics in their recommendations for neighborhood planning decisions. Kader and Mahmoud (2019) questioned how to address residual areas between neighborhoods to make them mixed use public spaces. They realized that those residual areas contribute to reliance on cars, are monofunctional, and are not adaptable for the climate (Kader & Mahmoud, 2019). They recommended developing those areas into “urban nodes,” which are walkable dense multi-use areas with food, shops, and recreation. This strategy would first help planners to identify areas for development, and second, would connect neighborhoods, thus increasing social connections and diversity.

Coutinho-Rodrigues, Simão, and Antunes (2011) considered both geography and the environment when developing a spatial decision support system (SDSS). They developed the system in recognition of the need to integrate spatial data with social, economic, and environmental data in infrastructure. Not only did they consider environmental impact and spatial dynamics when using the system to make planning decisions, but they also had criterion around cost of infrastructure, operation and maintenance costs, investment profitability, and impacts from building new infrastructure (Coutinho-Rodrigues, Simão, & Antunes, 2011). This array of criteria illustrates the complicated nature of making planning decisions, where the technician must not only consider social sustainability, but they must also consider ways to reduce costs in the building itself, how to best prepare for environmental changes, and how to reduce the need for cars and other unsustainable materials.

## **Demographics**

Lastly, regarding community demographics, Hamiduddin (2015) found that two factors, aging and depopulation of neighborhoods, reduced the quality of available amenities such as public transport, shops, and schools. Additionally, a concentrated aging population skewed service demand to different types of businesses such as healthcare (Hamiduddin, 2015).

Farhadikhah & Ziari (2020) also studied age in community planning, but instead they focused on the age of the neighborhood itself. They found that new neighborhoods have a higher sense of connection to their community while older neighborhoods experienced resident turnover as people needing an inexpensive home consistently move in and out. This turnover furthered a lack of care for the community that already lacked new infrastructure. Next, when looking at retail access in New York city neighborhoods, Meltzer and Schuetz stated, “lower income and minority neighborhoods have fewer retail establishments, smaller average establishments, a higher proportion of “unhealthy” restaurants, and in certain cases, less diversity across retail sub sectors,” (2012, p.73). Larsen agreed that there are many details to consider when making planning decisions for low-income areas. In her paper, she stated, “a critical issue that emerges involves the tension created between economic development and equity goals, specifically associated with gentrification,” (2005, p.796).

## **Methodology**

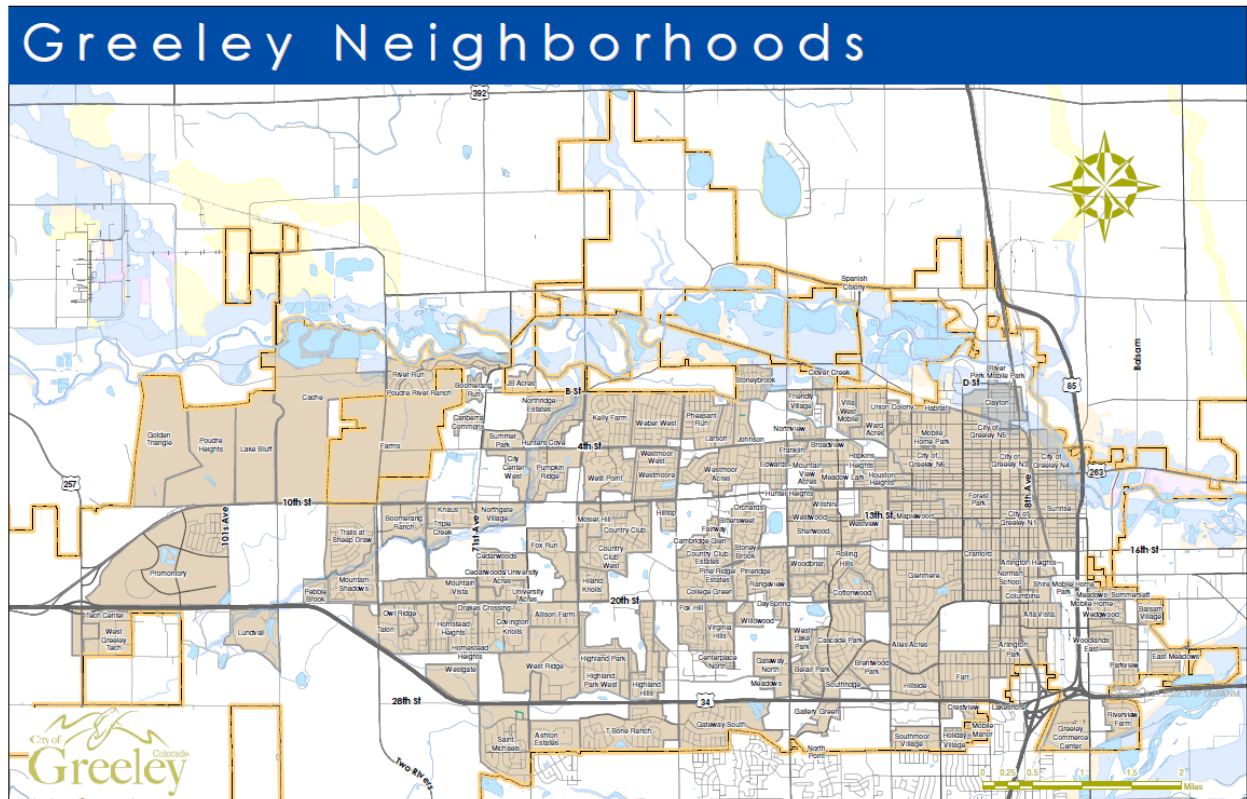
The following sections detail elements of this study including the sample, measurement techniques and the analytical strategy. The purpose of this study is to create a tool for neighborhood level community analysis by inventorying the distance to the most important community amenities as identified in the literature review for each neighborhood in the study.

### **Sample**

The sample frame consists of a list of neighborhoods identified in the city of Greeley's recent neighborhood mapping project, as seen in figure 3.1. The sample is all neighborhoods east of 59th Avenue. This is a non-probability quota sample because it includes all neighborhoods in the part of the city that is already developed. Since this study operates as a tool for planning decisions and is not meant as a scientific study, the non-probability quota is appropriate. Already established neighborhoods are necessary for the analysis because the tool aims to identify gaps in older neighborhoods that are experiencing new growth.



**Figure 3.1. City of Greeley Neighborhood Map**



### **Measurement**

The unit of analysis for this study is distance in feet. GIS calculates the distance from each neighborhood to the closest of seven categories of amenities. These amenities are higher education, libraries, k-12 schools, retail shopping, parks, grocery stores, and medical facilities. To generate this data, GIS runs a near analysis of the neighborhood central points to each of the seven amenity categories. To simplify the data, the resulting measurement is divided by 1,000 to produce a number that ranges between one and fifteen with the unit thousands of feet. A score for each neighborhood is produced by averaging all seven measurements.

## Analytical Strategy

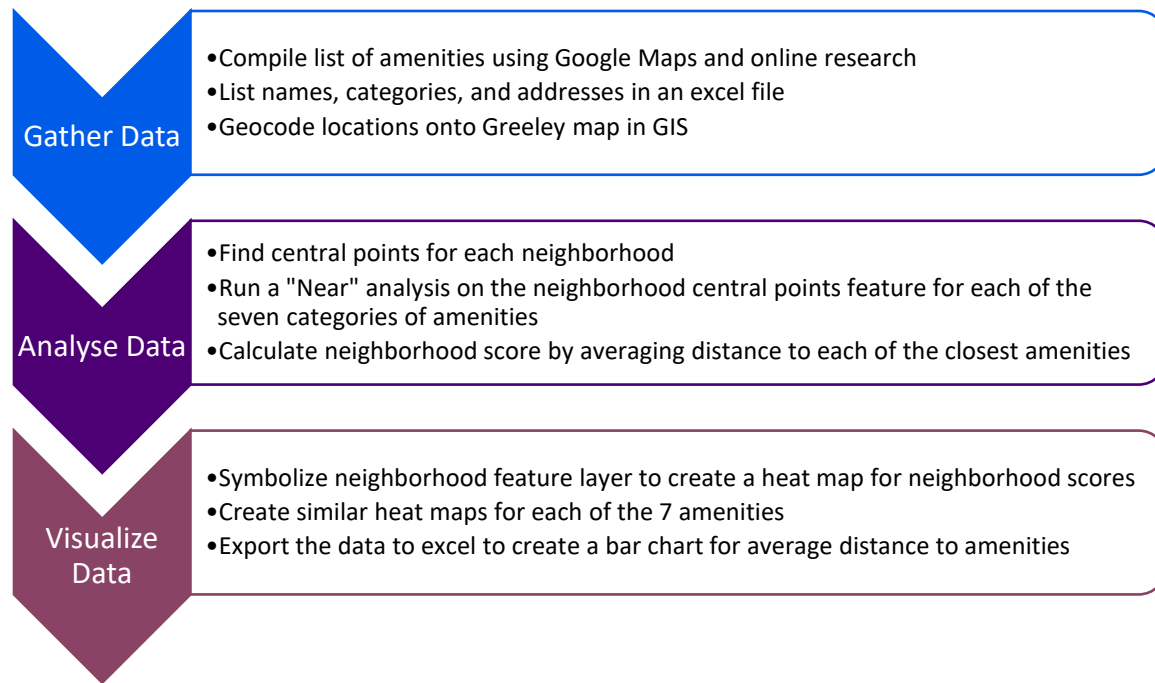
This neighborhood analysis method started with the compilation of amenities for each of the seven categories. The following list details each amenity category along with the method for gathering the data:

- **Higher Education:** List includes Aims Community College, 2 locations for the University of Northern Colorado to mark central and west campus, and the Immigrant and Refugee Center where residents can go for English classes.
- **Libraries:** Data was gathered using Google Maps. The two libraries at the University of Northern Colorado were included in the analysis.
- **K-12 Schools:** Data was gathered from the Greeley-Evans School District 6's School Directory. Schools were categorized into elementary, middle, and high schools and GIS analysis found the distance from each neighborhood to the closest of each category of school and averaged the three numbers.
- **Retail Shopping:** Data was gathered from Google Maps. List includes shopping centers as well as Walmart and Target stores.
- **Parks:** This GIS layer was pulled from a shapefile of all parks and green spaces provided by the city of Greeley.
- **Grocery Stores:** Data was gathered from Google Maps. Convenience stores like Seven Eleven or gas station stores were not included.
- **Medical Facilities:** Data was gathered from Google Maps. Only medical offices that could provide walk in general care such as hospitals, urgent cares, and clinics were inventoried.

The amenity names and addresses were recorded in excel files and geocoded onto a Greeley city map using GIS software. For each neighborhood of study, GIS ran a “near” analysis to find the closest amenity of each category and calculate the distance from the neighborhood central point to that amenity. Since the distance is calculated in feet, each distance was divided by 1,000 to produce a number ranging from zero to fifteen in the unit thousands of feet. Lower numbers represent a closer distance to the amenity. The K-12 education score was calculated by averaging the distance to the nearest high school, middle school, and elementary school. In the attribute table for the neighborhood central points feature layer, a new field was added to calculate a neighborhood score. The neighborhood score is calculated by averaging the distance to all seven of the nearest of each amenity for each neighborhood. This score will aid city planners in identifying neighborhoods with needs for closer amenities.

The neighborhood feature layer, which was provided by the city of Greeley planning department, was symbolized using graduated colors for neighborhood scores, with red symbolizing the highest, or worse scores and green symbolizing the lowest or best scores. When neighborhoods are selected on the map, they display the neighborhood score, the closest of each amenity and the distance to said amenity in thousands of feet. For further analysis, heat maps were generated for each of the seven neighborhood amenities. This helped further visualize gaps and needs. Lastly, the data was exported to excel to run further analysis of average distance to each amenity and to find the highest and lowest ranked neighborhoods. Figure 3.2 below provides a visual of the methods used in this project.

**Figure 3.2. Methods Flow Chart**



## **Validity**

When considering the results of this research, one must consider the validity within this experiment. The following paragraphs review the content validity, construct validity, and generalizability of the study.

Content Validity asks if the tool is correct and “that nothing relevant to the phenomenon under investigation is left out,” (Frankfort-Nachmias et al., 2015, P.131). The main concern with the content of this secondary data study is sampling validity, or if all the contributing elements to the phenomenon are included in the study. Secondary data analysis is an advantageous method of study for situations of comparison like this one, where the data already exists and has not yet been analyzed in the proposed way. Google maps, the main source of data for this project, is updated regularly, but could still give incorrect information. To improve the

content validity, future projects could perform neighborhood walk throughs to catch any amenities that are not listed online.

Construct validity asks if the measurement is appropriate for the study. While distance from amenities has been repeatedly qualified in the related literature to impact neighborhood viability, the maximum acceptable distance and whether the amenity is accessible by walking or by car varies drastically by culture and environment. Since the majority of Greeley residents utilize car for travel, accessibility of public transportation and bus routes was not considered. While some studies already look at how far away an amenity can be before people stop utilizing it, the research could be made more specific to the culture of Colorado in the future.

Finally, the generalizability of this study is only applicable to the city of Greeley, as the observed trends were specific to the geographic qualities of the community. The method of analysis however can be applied to other communities to identify their strengths and weaknesses in amenity accessibility.

## **Findings**

The score generated for each neighborhood represents the average distance in thousand feet to each of nearest amenities from seven categories: higher education, libraries, K-12 Education (average distance to elementary, middle, and high school), retail shopping, parks, grocery stores, and medical facilities. The average neighborhood score was 3.96. For reference, 1 mile is equivalent to 5.28 thousand feet. This means that on average, each neighborhood has access to all the listed amenities within one mile of that neighborhood.

### **Neighborhood Ranking**

Figure 4.1 below shows a heat map of the Neighborhood Scores for each neighborhood east of 59th Avenue. Green neighborhoods have the lowest scores, meaning they have the least average distance between them and the seven amenities. Neighborhoods closer to downtown and around 11th and 23rd Avenue near Highway 34 appear to be the most endowed with nearby amenities. Neighborhoods that are orange and red in color have the highest scores and therefore are the farthest away from the important amenities. Understandably, the worst scores are on the outskirts of town, but there is an unexpected yellow zone in the middle of the city between 35th and 47th Avenue.

**Figure 4.1. Neighborhood Score Heat Map**

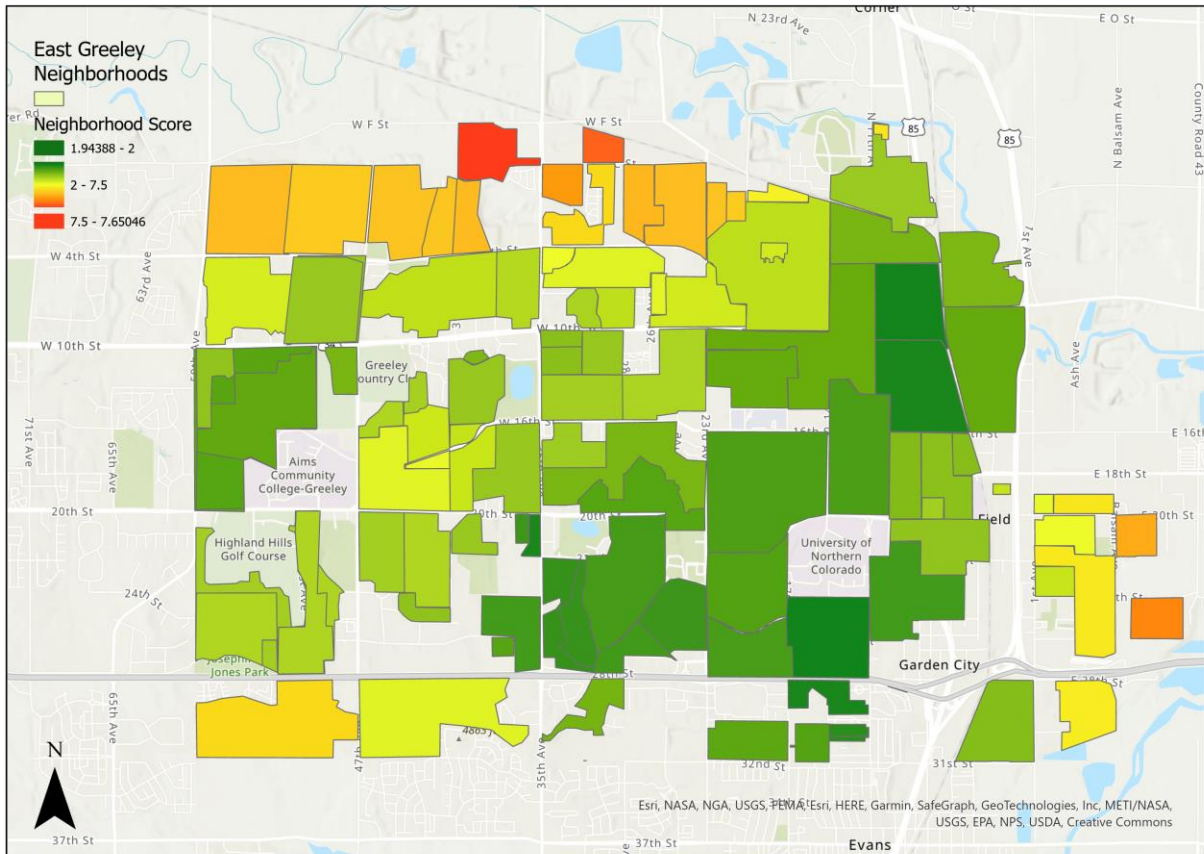


Table 4-1 and Figure 4.2 below identify the top ten and bottom ten neighborhoods according to the neighborhood score formula. Interestingly, mobile home communities are represented on both lists. These neighborhoods represent an array of incomes and types of communities, but the overwhelming trend is that the top neighborhoods are in downtown (City of Greeley N3 and N1) Greeley or along the main highway. The top neighborhoods along the highway are all older and well cherished neighborhoods. None of them are recent builds and with Mobile Manor as an exception, all have slightly older houses and mixed or middle-income residents. The neighborhoods with poor access to amenities are along the north and east outskirts of the community. All the lowest ranking neighborhoods are slightly removed from the rest of

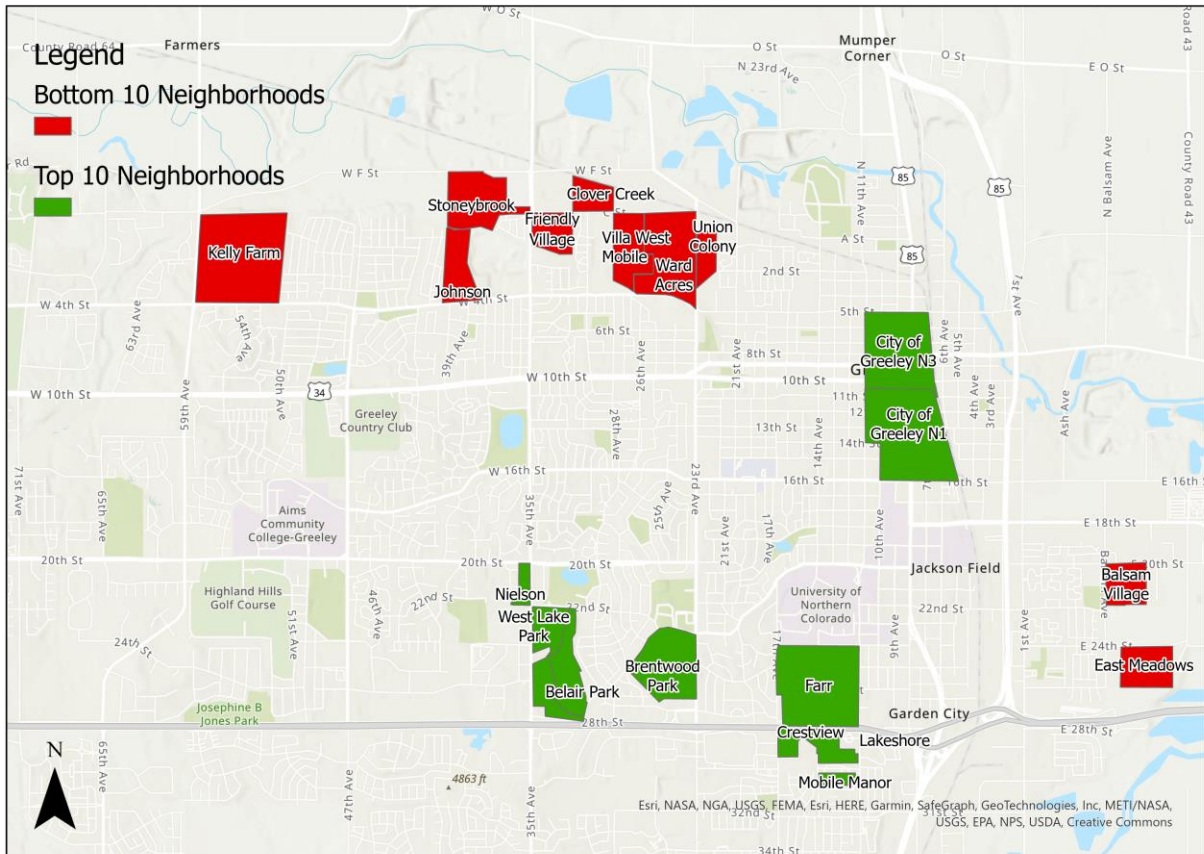
the city. These neighborhoods are known to be more diverse. Schools in these areas tend to have lower levels of English spoken in the household. The Kelly Farm neighborhood is more removed from the rest of the neighborhoods in the bottom 10 category. It tends to have higher valued housing than the rest of the neighborhoods in that category.

**Table 4-1. Lowest and Highest Scoring Neighborhoods**

<b>Top 10 Neighborhoods</b>		<b>Bottom 10 Neighborhoods</b>	
<b>Neighborhood</b>	<b>Score</b>	<b>Neighborhood</b>	<b>Score</b>
Lakeshore	1.94	Union Colony	5.76
Farr	2.34	Ward Acres	5.84
City of Greeley N3	2.37	Johnson	5.85
City of Greeley N1	2.41	Kelly Farm	5.86
Crestview	2.42	Villa West Mobile	5.95
Nielson	2.43	Balsam Village	6.13
Mobile Manor	2.51	Friendly Village	6.38
West Lake Park	2.62	East Meadows	6.67
Belair Park	2.65	Clover Creek	7.13
Brentwood Park	2.71	Stoneybrook	7.65



**Figure 4.2. Highest and Lowest Scoring Neighborhoods**



### **Strength of Neighborhood Amenities**

More community trends and gaps are revealed when each amenity is analyzed separately.

Figure 4.3 below shows the average distance from each neighborhood to the closest of each amenity. Libraries have the highest average distance. This shows a weakness in the availability of libraries in the city of Greeley. Greeley’s strongest available amenity is parks, with only 1.32 thousand feet average distance to a park. This means that most neighborhoods are within walking distance to a park. Figure 4.4 is a compilation of the 7 different heat maps for each amenity with the locations of the amenities illustrated as well. Parks, shopping centers, and K-12 education

maps appear to be well spread, whereas the library, grocery store, medical services, and higher education maps highlight clear areas with low access to those amenities.

**Figure 4.3. Average Distance from Each Neighborhood to the Closest of Each Amenity**

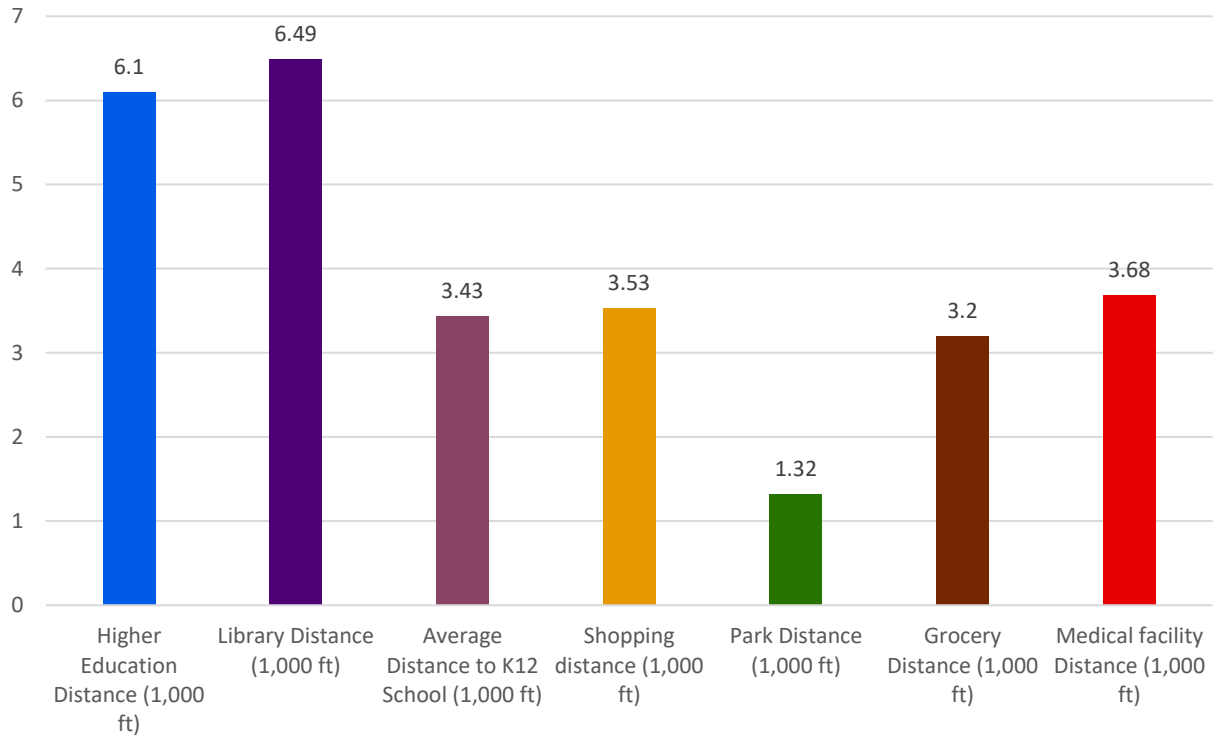
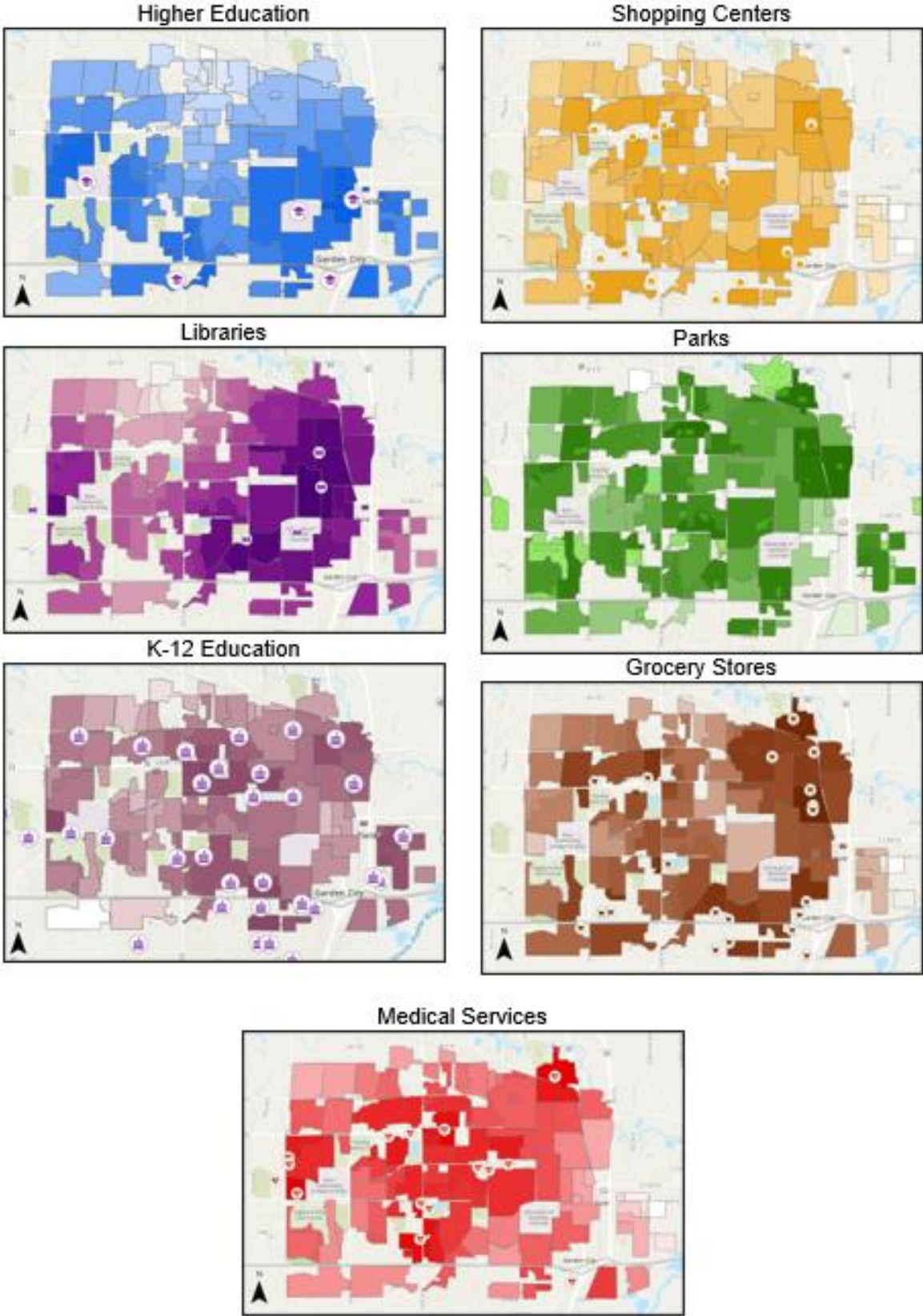


Figure 4.4. Heat Map for Each Amenity



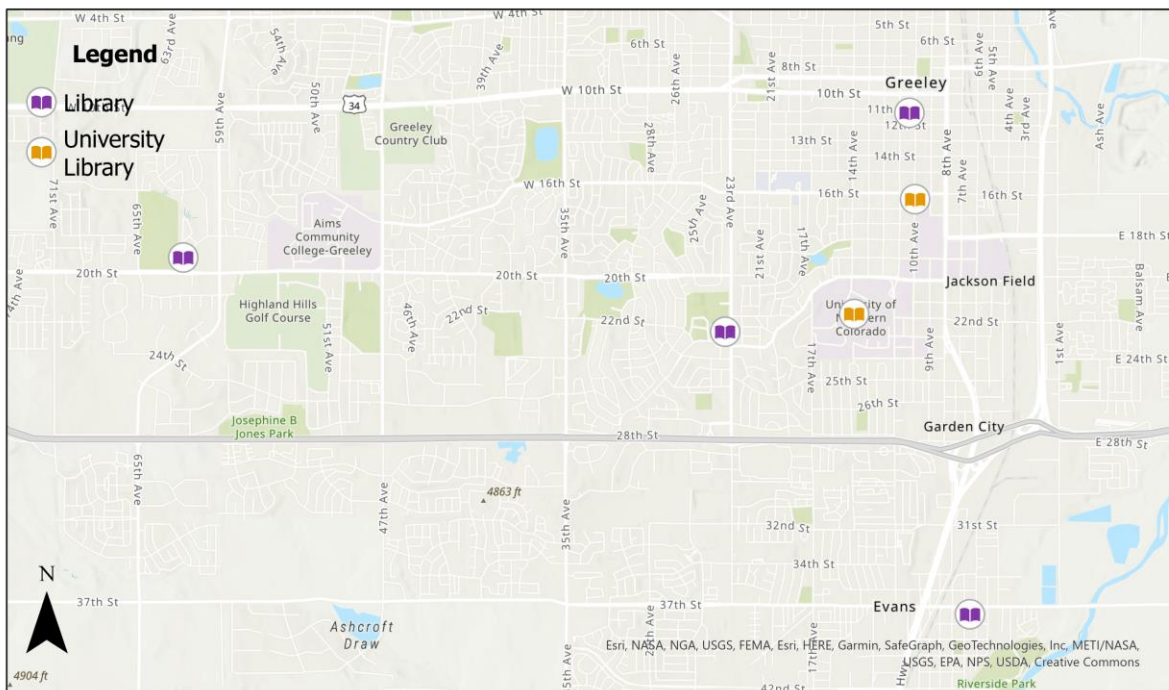
## Discussion

This tool allows planners to visualize Greeley’s strengths, weaknesses, and trends at the neighborhood level. Through review of the data, several recommendations can be made to improve the availability of amenities for the established neighborhoods in the city of Greeley.

### Library Opportunity

As visible in figure 5.1 below, libraries are concentrated in east Greeley with two outliers, one in Evans and one in west Greeley. This leaves a large space in the middle of the city without easy access to a library. While a proper conclusion should not be drawn without consideration of population density and area demographics, this tool would suggest creation of a new library around 10th Street and between 35th and 47th Avenue.

**Figure 5.1. Library Locations**

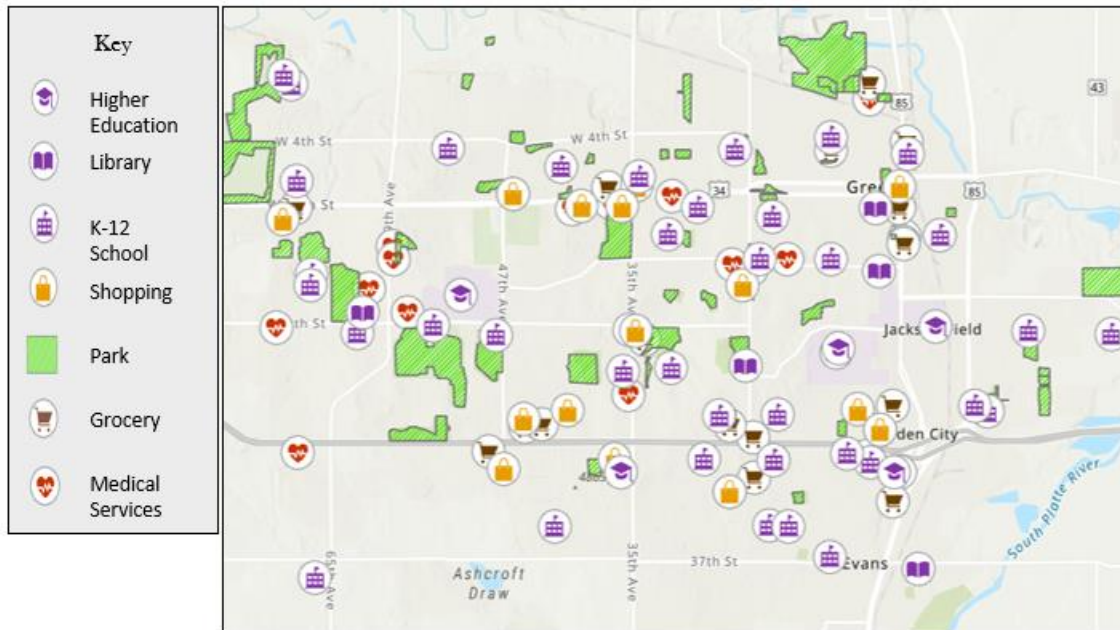




## Centrality of University and Workplaces

The strongest neighborhoods are the ones centering around the University of Northern Colorado and Downtown Greeley, which also offers many work offices. This tendency reveals the opportunity for the formation of other strong neighborhoods around parts of the community with similar work and study accessibility. Aims Community College does not have particularly strong neighborhoods surrounding it. This college has recently undergone expansion and is an important asset to the city of Greeley. It currently does not offer on campus housing for students but could benefit from the encouragement of complete communities near the school. Figure 5.2 shows the spread of all amenities in the community. The areas that had stronger neighborhood scores have a better variety of the different amenities. Further research should be done to map where workplaces are growing to look to strengthen the amenity access in those neighborhoods as well.

**Figure 5.2. Amenities in Greeley, CO**

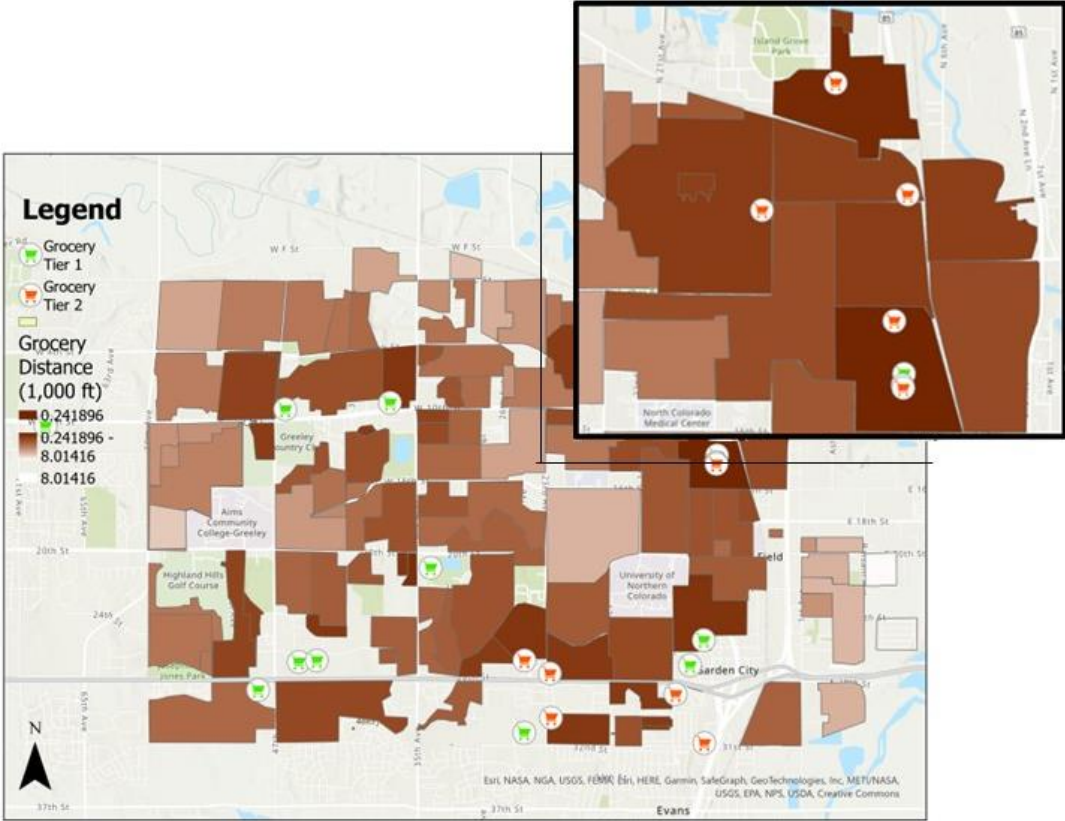


## **Grocery Stores and Food Deserts**

In the past, media outlets claimed that the city was without a grocery store in downtown Greeley. That issue was recently relieved with the placement of a Natural Grocers on 8th Avenue (Wood, 2021). In this analysis, many grocery stores were located in the downtown area, however they were not mainstream, full-service grocery stores such as King Soopers and Safeway. These were ethnic grocery stores or dollar stores, which for the purpose of this analysis were categorized as tier 2 stores. Snack stores such as Seven Eleven were not included on this map, but stores where residents could shop to get enough food for multiple meals were included. The Greeley Farmers Markets were also not included in this map because of the varying location between summer and winter markets and the fewer open hours, but the Greeley farmers market is also located downtown, further relieving the previous food desert problem. Greeley's Summer Market is open every Saturday May through October at the Union Pacific Depot on 9th Street and 7th Avenue and the Winter Market is the 1st and 3rd Saturdays of November through Mid-May at Zoe's Café on 10th Street and 7th Avenue (City of Greeley, n.d.).

Figure 5.3 depicts tier 1 grocery stores with a green symbol and the tier 2 stores with an orange symbol. The enlarged portion of the map shows the northeast corner of Greeley which contains the downtown area that was previously labeled a food desert. This area contains 6 tier 2 grocery stores, the highest concentration of this type of store in the city. The green symbol represents the new Natural Grocers. Since news articles previously focused on the deficit of tier 1 grocery stores in the area rather than the strength of the tier 2 grocery stores, the area was viewed as being "weak." The city of Greeley could benefit from encouraging media to focus on the asset of the many ethnic grocery stores in the area rather than on the deficits.

Figure 5.3. Tier 1 and Tier 2 Grocery Stores in Downtown Greeley



## Recommendations

In addition to revealing the most important neighborhood amenities, the literature review also discussed how demographic information can provide key data for neighborhood level planning decisions. Hamiduddin's (2015) research found that aging residents and depopulation of neighborhoods reduces the quality of available amenities such as public transport, shops, and schools. Additionally, a concentrated aging population skews service demand to different types of businesses such as healthcare. Farhadikhah & Ziari, (2020) found that older neighborhoods had high resident turnover and that it furthered a lack of care for the neighborhood that already lacked new infrastructure. Lastly, Meltzer and Schuetz observed a tendency for low income and minority neighborhoods to have smaller average establishments and a higher proportion of unhealthy foods for sale. In the future, the city of Greeley planning team should combine this tool with demographic data for each neighborhood. That data could reveal neighborhoods that need special attention by observing income, diversity, age of the residents, etc.

Another statistic that should be utilized when making planning decisions is population density and service areas. This study looks at neighborhood level amenities. While some amenities have farther average distances to neighborhoods, their service areas may be larger and there may be no need to try to decrease their distances to neighborhoods. Examining population density could reveal that while some areas lack a certain amenity, their population density is so low that it cannot justify the creation of a new location. Similarly, an examination of similar communities and their average distance from the seven amenities to their neighborhoods would also reveal what are normal distances to amenities. This would help advance an understanding of which amenities in Greeley are particularly weak or strong. Creating a bar chart like the one seen in figure 5 for communities such as Fort Collins, Loveland,



Colorado Springs, etc. could reveal meaningful context that this study is lacking due to limited time and resources.

Finally, the seven neighborhood amenities for this study were selected from scholarly journal articles that detailed research from all over the world. To make this study more pertinent to the city of Greeley itself, community planners could poll residents about which amenities they find the most necessary to be located near their neighborhood. Polling residents would not only make this tool more effective, but it would also give residents a feeling of involvement in community planning. Resident involvement is always something to strive for in the field of community development.

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