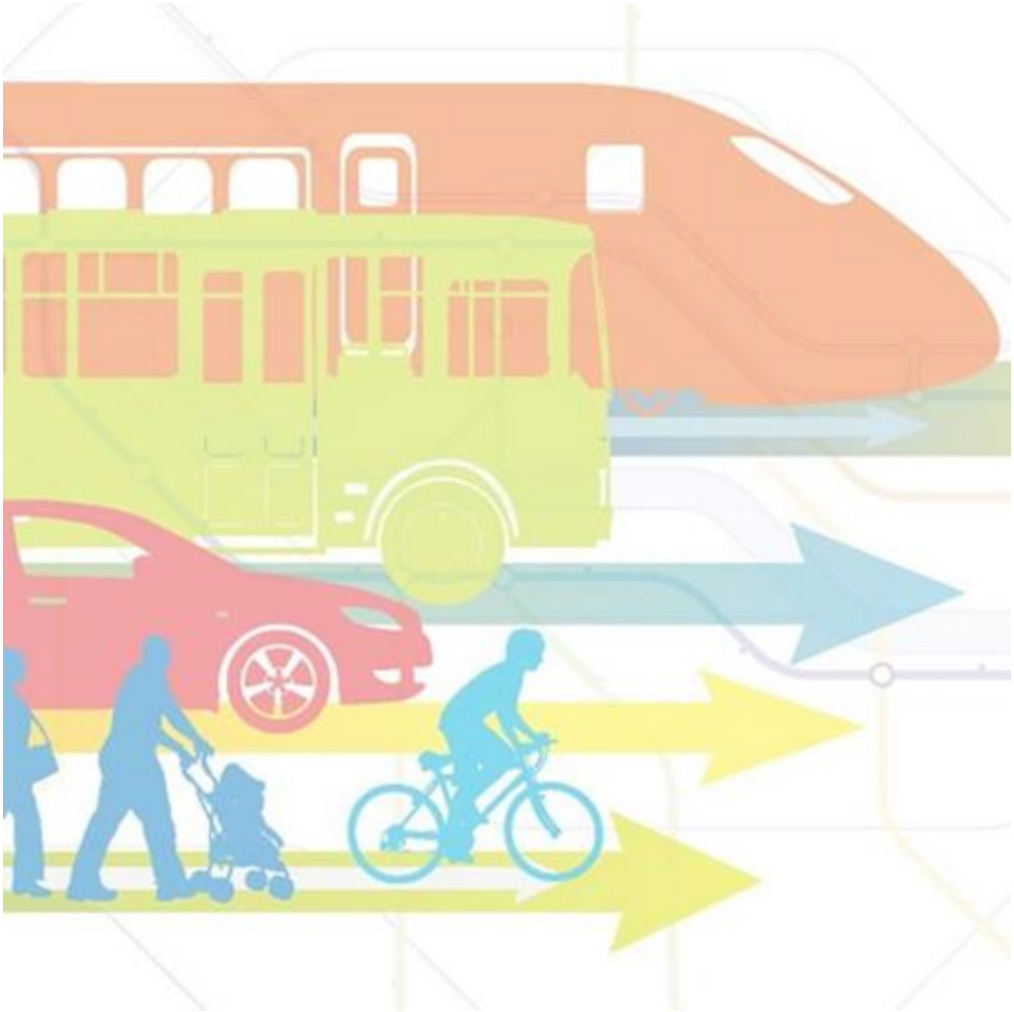

The Peoria Project - Project Prioritization Tools

UP 432 - Transportation Equity | May 2020

Table of Contents

Executive Summary

This report summarizes the work completed by the students of UP 432 Transportation Equity for our class project client, the City of Peoria. Our goal was to develop an equity-based prioritization tool to help Peoria guide project implementation with consideration for local historic and geographic disinvestment and other equity issues, using input provided by the city during our February meeting and our own research. In the first phase of our project, the class worked in three groups to create a context overview of the city's demographics and recent history as well as current projects and plans, and a review of work other U.S. cities have done to build equity-based prioritization tools with a focus on looking beyond traditional cost-benefit analysis methods. In the second half of the semester, we used this information to develop three separate models, with the intent of choosing one as the preferred tool to present to the city. Instead of presenting a single completed model, this final report outlines the three models developed by our class groups followed by a summary of our evaluations of each and a set of final recommendations for how to use this information going forward. Due to the initial disruption and ongoing circumstances related to the COVID-19 pandemic, we were unable to reach the degree of completion on this project that we had anticipated. However, we hope that the materials in this report will help to generate productive discussions around equity prioritization in Peoria's planning process, as well as provide a comprehensive framework for students who may be willing to take on the next phase of developing this tool as a capstone project. Learning about Peoria, both its challenges and potential, has been a unique opportunity for us to apply the concept of transportation equity as we learned about it in class to a real-life situation and we are grateful to the city of Peoria for inviting us to work with them on this project.

Report I

Equity Prioritization Model For Peoria

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UP 432 Transportation Equity

Table of Contents

List Of Figures

1. Introduction

The goal of this project is to develop an equity prioritization tool for the city of Peoria, Illinois. Peoria is a small to medium sized city in central Illinois which originally built its economy on manufacturing and whiskey distilling. However, in more recent years the city has struggled with population decline and urban sprawl, as manufacturing jobs moved overseas and white-flight moved wealth out to the urban periphery. This eroded the city's tax base and the municipal government's capacity to fund public services like schools, public safety, and infrastructure improvements. The budget shortfall and high levels of racial segregation have also made it difficult for the city to advance equity goals, as scarce resources are funneled into areas of existing opportunity and wealth. However, many forward-thinking community leaders are beginning to question this model and demand an equity-based approach. By using an equity prioritization tool to appropriate funds compared to the traditional approach, cities around the country have seen tangible results in the lives of their most vulnerable residents. That is why we proposed the city of Peoria adopt a similar method specifically for transportation project funding. This report details some of the key benefits that equity-based approaches can offer and outlines a brand new tool, developed specifically for the city of Peoria.

2. Study Models: Transportation Project Prioritization Tools

By researching prioritization tools that are currently being used in cities around the United States, we can gain a better appreciation for the work being done to address past injustices. To identify tools that were useful for this project, we looked at cities with similar characteristics to peoria as much as possible, including population size, geographic proximity, and economic characteristics. This was important to our group because the challenges faced by large coastal cities, or places with vastly different economic conditions, may not correspond to those seen in Peoria. For example, the issue of gentrification and displacement in certain New York City neighborhoods is not a challenge generally faced in Peoria. Rather, Peoria has struggled with the side effects of deindustrialization, population decline, and urban sprawl seen throughout many Rust Belt cities, including Cleveland, Milwaukee, and Detroit. By focusing on metros with certain similarities to Peoria, we were able better understand the various considerations, weighting methodologies, and goals that may help us craft the most effective equity prioritization tool. Using these plans for inspiration, we developed a set of goals that were ambitious, but also achievable in the context of a city with limited municipal resources and political will to enact sweeping reforms. The case studies were also useful for developing our project evaluation criteria and numerical weights. The following prioritization tools are examples of best practices for operationalizing social equity in transportation projects.

2.1 CA Oakland Transportation Project Prioritization

The first case study tool comes from Oakland California, a mid-sized city of around 400,000 inhabitants that is similar to Peoria in a variety of key ways. Firstly, both cities developed their economies around manufacturing and trade in the early 20th century, with companies like General Motors, Chrystler, and Caterpillar operating assembly plants that employed thousands of blue-collar workers. Between approximately 1920 - 1940, both cities attracted large numbers of African-Americans fleeing the Jim Crow south which boosted their economic output, but contributed to issues of segregation and suburbanization. Racist federal housing policies, such as the Housing Act of 1949, fueled white-flight in both cities and ushered in an era of urban renewal that disproportionately affected black neighborhoods and created the disparities we see today in employment opportunity, educational attainment, and access to transportation. To address these inequities, the Transportation Project Prioritization Tool (TPPT) was created by the City of Oakland Public Works Agency in 2012. The tool uses a scoring system that rates potential projects on a scale of 0-100 based on how well they satisfy certain goals. Higher scores award a project greater funding priority. The criteria used in the evaluation process are derived from three broad goals, 1) To prioritize transportation projects that match the city's policy goals, 2) To ensure projects have completed key hurdles and can be implemented in the near-term, 3) To improve the multimodal transportation network through complete streets principles, while maximizing funding opportunities.

Figure 1. Goals and Evaluation Criteria of TPPT

Goals *"In order to…"*	**Project Evaluation Criteria** *"…we ask about:"*
Prioritize transportation projects that match City policy and goals	▪ Adoption in General or Council-approved Plan ▪ Proximity to transit ▪ Priority Development Areas ▪ Approval in partner agency plans
Ensure the readiness of these project by screening for projects that have completed key hurdles to ensure the feasibility of near-term implementation	▪ Completion of public engagement process ▪ ROW acquisition ▪ Environmental clearance status ▪ 35% Plan completion ▪ Identification of staff leadership
Use complete streets principles to improve the multimodal network and maximize funding opportunities by prioritizing projects that match funding programs evaluation criteria	▪ Transportation safety ▪ Pedestrian comfort and amenities ▪ Provision of bicycle facilities and parking ▪ Improved access to transit services

Source: Transportation Project Prioritization Technical Report, TPFD

Projects are ranked by their scores and also ranked by predefined cost categories (<$1M), ($1M to $5M), (>$5M). The five projects that score highest for each category constitute the Tier 1 screening process. Tier 2 screening consists of staff review and further evaluation of projects.

The first criteria is Policy Support (Fig. 2) which expresses legislative intent and inter-agency support. In all categories, each criterion is given a number between zero and one (percent of the total weight to be allocated). For example, a project in a council-approved plan would receive 0.7X10 or 7 points, and a project in the General plan would receive 1.0X10 or 10 points. This makes up 25 of the 100 possible points. The second criteria category is Project Readiness (Fig. 3) which assesses the likelihood of readiness of a project in terms of final design and implementation. This makes up 35 of the 100 possible points. The third criteria category is Complete Streets (Fig. 4) which makes up 40 of the 100 possible points. This can be considered as the equity aspect of the plan where complete streets category evaluate the degree to which projects are designed to cater to all users including drivers, cyclists, transit users, vehicles, pedestrians of all ages and abilities in terms of safety, comfort and convenience. The equity element in this tool is seen in the Complete Streets category. One thing to note is that ADA compliance is scored based on its existence as well as requirement (based on whether or not that area already meets ADA compliance).

Figure 2. Policy Support answers, scores and weights

Policy Support Criteria

City Plan Adoption	
General Plan	1
Council Approved Plan	0.7
Other City Plan	0.4
Not in a City Plan	0
Project Weight:	***10***

Partner Agency Plan Adoption	
Yes	1
No	0
Project Weight:	***5***

Regional Transportation Plan Inclusion	
Yes	1
No	0
Project Weight:	***0***

Transit-Oriented Development	
< 0.25 miles to BART/Trunk Bus	1
<0.50 miles to BART	0.5
>0.50 miles to BART	0
Project Weight:	***5***

Priority Development Area	
Planned	1
Potential	0.6
Proximate	0.3
N/A	0
Project Weight:	***5***

Source: Transportation Project Prioritization Technical Report, TPFD

Figure 3. Project Readiness answers, scores and weights

Project Readiness Criteria					
Public Process		*ROW Acquisition Required*		*Staff Leaderhip*	
Yes (Specific)	1	Yes	-1	PM Identified	1
Yes (General)	0.5	No	0	No PM Identified	0
No	0				
Project Weight:	***10***	*Project Weight:*	***5***	*Project Weight:*	***5***

Environmental Clearance		*35% Plans*	
Environmental Document AND Studies Complete	1	Completed	1
Environmental Document OR Studies Complete	0.7	In-process	0.3
Studies Scoped	0.3	Pending	0
None	0		
Project Weight:	***10***	*Project Weight:*	***10***

Source: Transportation Project Prioritization Technical Report, TPFD

Figure 4. Complete Streets answers, scores and weights

Pedestrian	*Weight*
Widen sidewalks	2
Increase pedestrian space for street furnishings, landscaping, and other pedestrian amenities	2
Install street trees, furniture, or other improvements to the pedestrian realm	1
Upgrade existing facilities that do not currently meet ADA standards	3
Provide new and/or enhanced pedestrian crossings of collector or arterial roadways	2
Add pedestrian-scale lighting	1
Bicycle	
Provide additional bike parking capacity	2
Bicycle Facility Type	
Bike Lane or Bike Path	4
Sharrows	1
Sharrow/Bike Lane Mix	2
Bicycle Boulevard	3
None	0
Bicycle Master Plan Priority Project or Major On-Street Project Bonus	200%
Transit Operations and Access	
Enhance passenger amenities through new transit shelters and/or benches	2
Improve disabled access to bus stops and/or BART stations	3
Provide dedicated bus lanes, queue jump lanes and/or bus bulbs to reduce bus delay	4
Provide stop consolidation, signal priority, or other strategies to reduce bus delay	2
Motor Vehicle	
Improve freight operations on designated freight routes	2
Use improved geometric design to improve safety at locations with high crash history	3
Upgrade signal system and communication to allow for more efficient operations	2
Upgrade illumination to meet best practices and improve safety	1

Source: Transportation Project Prioritization Technical Report, TPFD

The tool format is an Excel workbook with multiple tabs. Questions are on the "Data Entry" tab. The answers of each of these are in the "Policy and Readiness" and "Complete Streets" tabs. The scores and weighted and tallied in the "Calculations" tab. All the projects, in order of ranks, are displayed in the "All Projects, Ranked" tab and the "Project Lookup" tab is used to print a summary of a project's details. All proposed projects will be scored using the tool and after the Tier 1 screening, the projects will be evaluated by the staff to ensure environmental justice, geographic equity, while also allowing for considering political feasibility and economic development potential.

TPFD identified four issues in the tool that will be updated to enhance the tool's usability:

- "High" crash history should be included by using either a crash rate threshold or an indexing metric as used by other transportation agencies.
- Criteria should be refined to be specific to project funding levels/magnitude.
- Complete Streets street classification typology should be developed and incorporated into the tool to differentiate streets types.
- Another method of prioritization for planning efforts other than projects should be developed.

2.2 Madison Area Transportation Planning Board

The Madison Area Transportation Board (MATPB) is a federally designated MPO serving a population of around 400,000 throughout Wisconsin's state capitol region. This is a useful case study metro because the cities of Madison and Peoria are both located in the Midwest, which can be an important factor in the political process that surrounds an equity prioritization tool's implementation. In other words, planners and policymakers in a place like Peoria may look to peer cities in the region for inspiration and examples of best practice. Additionally, both cities have grappled with racialized inequality and the concentration of poverty in historically disinvested neighborhoods. To help address these disparities with respect to accessible transportation, the MATPB has designated equity as one of its central planning goals for the regional transportation system (MATPB, 2018). This is done by analyzing projects both quantitatively and qualitatively through an equity lens.

In its project prioritization tool, MATPB uses Environmental Justice and Public Health Equity as the two equity scoring criteria. These two criteria are used for prioritizing Roadway Projects, Transit Infrastructure Projects, Transit Vehicle Purchase Projects, Bicycle/Pedestrian Facility Projects, Bike/Ped Infrastructure Projects, and Safe Routes to School non-Infrastructure Projects. The MATPB Equity Scoring Criteria for different types of projects are shown in Figures 6, 7, 8, 9, and 10.

Mapping:

After selecting projects, MATPB maps out mappable projects overlaying on low-income, minority and zero-vehicle household areas. This is a qualitative assessment of distribution of projects, investment distribution and usage in disadvantaged neighborhoods.

Figure 5. MATPB Scoring System

Scoring Categories and Maximum Points Used for STBG - Urban Project Evaluation Criteria by Project Type

	Scoring Category	Project Type				
		Roadway	Bike/ Ped	Transit (Buses)	Transit (Infrastr.)	ITS
1	Importance to Regional Transportation System	20	20	-	20	20
2	System Preservation	15	5	25	15	5
3	Congestion Mitigation & TSM	12	5	15	10	15
4	Safety Enhancement	10	20	10	10	18
5	Enhancement of Multi-modal Options/Service	8	20	10	10	10
6	Supports Transportation Efficient Land Use, Livability, and Economic Prosperity	10	4	5	10	7
7	Environment	8	8	13	8	8
8	Environmental Justice and Health Equity	7	8	12	7	7
9	Cost/Benefit	10	10	10	10	10
	Total	100	100	100	100	100

Source: MATPB, 2018

Figure 6. MATPB Equity Scoring Criteria and Points for Roadway Projects

8. Environmental Justice and Public Health– 7 Points Total		
Criteria	**Points**	**Scoring Guidelines**
Environmental Justice • The project is located within or directly benefits a MPO-defined environmental justice area, providing improved multi-modal access/mobility and/or otherwise improving the area's livability. [Note: See maps in Attachment D – Environmental Justice Analysis of the Transportation Improvement Program (TIP).]	0 – 4	Maximum points will be awarded for projects located in and directly benefiting an EJ area.
Public Health/Health Equity • The project provides public health benefits (e.g., provides community/social space or improved access to parks/open space, improves access to health care or other services, healthy food resources, etc., provides opportunities for physical activity, improves safety, etc.). • The public health benefits of the project positively affect residents in areas with health outcome disparities. [Note: See map at the following link of areas with high or moderate rates of asthma, childhood obesity, and/or adult diabetes. http://www.madisonareampo.org/planning/documents/Health_Metrics.pdf]	0 – 3	Maximum points awarded to projects that provide significant public health benefits to areas where residents have health outcome disparities.

Source: MATPB, 2018

Figure 7. MATPB Equity Scoring Criteria and Points for Transit Infrastructure Projects

8. Environmental Justice and Public Health – 7 Points Total		
Criterion	**Points**	**Scoring**
Environmental Justice • The project improves accessibility of the transit system for persons with disabilities through upgrades to existing fixed-route buses or bus stops. • The project is located within or directly benefits an MPO-defined environmental justice (EJ) area and provides improved transit access and mobility, and/or otherwise improves the attractiveness of transit service. [Note: See maps in Attachment D – Environmental Justice Analysis of the TIP.]	0 – 7	Maximum points will be awarded for projects located in and directly benefiting an EJ area.
Public Health/Health Equity • The project provides public health benefits (e.g., provides community/social space or improved access to parks/open space, improves access to health care or other services, healthy food resources, etc., provides opportunities for physical activity, improves safety, etc.). • The benefits of the project positively affect residents in areas with health outcome disparities. [Note: See map at the following link of areas with high or moderate rates of asthma, childhood obesity, and/or adult diabetes. http://www.madisonareampo.org/planning/documents/Health_Metrics.pdf]	0 – 3	Maximum points awarded to projects that provide public health benefits and provide significant benefits to areas where residents have health outcome disparities.

Source: MATPB, 2018

Figure 8. MATPB Equity Scoring Criteria and Points for Transit Vehicle Purchase Projects

8. Environmental Justice and Health Equity – 12 Points Total		
Criterion	**Points**	**Scoring Guidelines**
Environmental Justice • The buses will be used for existing or new/improved transit service that directly benefits or serves an MPO-defined environmental justice area. [Note: See maps in Attachment D – Environmental Justice Analysis of the TIP.]	0 – 8	Maximum points will be awarded for buses to be used for new or improved service directly benefiting EJ area(s). Some points for buses to be used for existing service benefiting EJ area(s).
Health Equity • The buses will be used for existing or new/improved transit service that directly benefits or serves area(s) with health outcome disparities. [Note: See map at the following link of areas with high or moderate rates of asthma, childhood obesity, and/or adult diabetes. http://www.madisonareampo.org/planning/documents/Health_Metrics.pdf]	0 – 4	Maximum points will be awarded for buses to be used for new or improved service directly benefiting area(s) where residents have health outcome disparities. Some points for buses to be used for existing service benefiting these area(s).

Source: MATPB, 2018

Figure 9. MATPB Equity Scoring Criteria and Points for Bike/Ped Facility Projects

8. Environmental Justice and Public Health – 8 Points Total		
Criteria	**Points**	**Scoring Guidelines**
Environmental Justice • The project is located within or improves bicycle/pedestrian/ transit access/mobility for a MPO-defined environmental justice area. [Note: See maps in Attachment D – Environmental Justice Analysis of the Transportation Improvement Program (TIP).]	0 – 4	Maximum points will be awarded for projects located in and directly benefiting an EJ area.
Public Health • The project improves bicycle/pedestrian/transit access to parks/open space, health care or other services, healthy food resources, etc.	0 – 2	Maximum points awarded to projects that will provide improved access to healthy food resources, health care, and active recreation opportunities.
Health Equity • The project is located in or serves an area with health outcome disparities. [Note: See map of areas with high or moderate rates of asthma, childhood obesity, and/or adult diabetes at the following link: http://www.madisonareampo.org/planning/documents/Health_Metrics.pdf]	0 – 2	Maximum points for projects that provide benefits to areas where residents have health outcome disparities.

Source: MATPB, 2018

Figure 10. MATPB Equity Scoring Criteria and Points for Bike/Ped Infrastructure Projects

Bicycle/Pedestrian Infrastructure Projects

- Environmental Justice – 2%
  The project improves pedestrian/bicycle access for environmental justice areas. Note: These include areas with concentrations of low-income and minority populations and households with no motor vehicle available.
- Health Equity – 2%
  The project is located in an area with health disparities and limited access to active transportation options.

Safe Routes to School Non-Infrastructure Projects

- Health, Safety, and Environmental Justice – 35%
  - The program or activities is/are located at schools with a high rate of students eligible for free and reduced lunches (15%)
  - The program or activities foster(s) improved childhood health, reduced childhood obesity, and encourages a healthy and active lifestyle (10%).
  - The program or activities increase(s) bicycle, pedestrian, and traffic safety (10%).

Source: MATPB, 2018

3. Project Prioritization Tool for the City of Peoria

The goal of this section is to develop a project prioritization tool for the city of Peoria, Illinois that serves as a guide for policymakers and administrators in decision-making processes. The tool is specifically designed to address historic patterns of economic inequality, environmental racism, and concentrated disinvestment by proposing a decision-making matrix that directs more resources towards marginalized parts of the city. In this context, "equity" refers to the government's role in distributing resources based on need with the goal of achieving justice in the community. Like many American cities, especially those in the industrial Midwest, Peoria has long struggled with issues of racialized inequality in health outcomes, educational attainment, and employment opportunity which is why an equity based model is so important today. Of course, the city has limited funds which can be used to fund transportation infrastructure projects, but this makes the implementation of an equity tool even more urgent because projects in distressed neighborhoods with a low return on investment are often ignored. Our argument is that these projects should not be sent to the back of the line, but rather prioritized and considered thoughtfully by all stakeholders so that Peoria can begin to make equity a greater civic priority and ensure that all citizens can live in a safe and clean neighborhood.

3.1 Approach

The approach we took in developing our prioritization tool was to utilize the Madison Area Transportation Planning Board case study as a framework and guide. By studying the format and criteria of this plan, as well as the Oakland example, we were able to better understand how equity tools work in other cities. Our team analyzed the system for awarding points, the relative weights for various scoring criteria, and scoring guidelines. By focusing on cities with certain similarities to Peoria, such as an industrial past or geographic proximity in the Midwest, we felt confident that our model could be more seriously considered by the city of Peoria.

3.2 Development Process

To develop our tool's functionality, we first established five key domains that priority values could be assigned to. These domains included: Environment, Multi-Modal Transportation Options, Economic Development Goals, Historic Patterns of Disinvestment, and Public Safety/Health Conditions. Within these five overarching domains, specific scoring criteria were developed to more accurately assess the merits of each potential project. For example, within the Public Safety and Health domain, there are three constituent scoring criteria: Crime Prevention, Response to Public Health Emergencies, and Elimination of Bike and Pedestrian Fatalities. As in the MATPB tool, certain project types are weighted differently relative to the scoring criteria. This is intended to align certain project types with the most relevant and achievable goals. For example, Bike and Pedestrian projects award more points to those which expand the city's complete streets network (20 points) or reduce the number of bike and pedestrian fatalities (15 points).

3.3 Peoria Transportation Goals

Fig. 11 Objectives, Criteria and Inputs

	Objectives/Key Domain	Scoring Criteria	**Inputs**
1	**Environment**	Environmental Justice	- CSO Geographical Overlay/Shapefile
		Combined Sewer Overflow	- Census Data on air and water quality
			- Project Planning Process
2	**Multi-Modal Transportation**	Complete Streets	- CityLink Route geography/shapefile
		Alignment with Goals of Transit Operators	- Citylink Ridership heatmap/data
		Policy Support Criteria	- Citylink Service Audits
			- Bike Route GIS/Shapefile
			- Bike Master Plan Route Recommendations
			- City stops/Connection points
			- ADA accessibility Data
			- City of Peoria Sidewalk Survey Data
			- Peoria Cares Sidewalk Report Data
			- Project Planning Process
3	**Economic Development**	Justifiable ROI	- Estimate EAV Impact on Local Residential Development
		Project Readiness Criteria	- Lifetime Maintenance Cost of Infrastructure
			- Direct Wealth Generation of Project; Ratio of Materials vs. Labor Cost Estimates
			- Project Planning Process
4	**Historic Disinvestment**	Utility Infrastructure Upgrades	- GIS data (Year built of project-adjacent) property
		Investment Location	- Bike Master Plan Route Recommendations
			- City stops/Connection points
			- GIS Parcel Age Data
			- Historic Annual Capital Expenditures from Community Development and Public Works Department
5	**Public Safety**	Crime Prevention	- Police Department's Crime Heatmap

	and Health	Response to Public Health Emergencies	- Fire/EMS response location data
		Reduction of Bike and Pedestrian Fatalities	- Existing full-service grocery store locations
			- Public Health Emergency Reports
			- Crash Data and Incident sites from Vision Zero documents

3.3.1 Objective 1: Environment

The purpose of considering environmental conditions in this tool is to recognize the spatial concentration of pollution, such as water contamination and poor air quality. Given its industrial past, certain Peoria neighborhoods near the Illinois River are disproportionately affected by soil contamination and particulate matter in the air. For example, homes in close proximity to major roadways or distribution centers may be exposed to more vehicle exhaust and suffer negative health impacts such as asthma. The second scoring criteria is the city's combined sewer overflow project, an effort to reduce contamination of the Illinois River during heavy rain events. Currently, stormwater and untreated sewage may be discharged into the river when treatment capacity is reached, disproportionately impacting the city's oldest neighborhoods which have a greater proportion of low-income households. The scoring guidelines are as follows.

1) If the project is in the combined sewer overflow geography award a greater weight
2) If the project is in a census tract with above average levels of air pollution award a greater weight
3) If the project is in a census tract with above average levels of water pollution award a greater weight
4) If the project incorporates a public input process award a greater weight

These guidelines help advance equity goals by prioritizing projects in areas with the greatest need and considering each community's unique context.

3.3.2 Objective 2: Multi-Modal Transportation

The second objective of the prioritization tool is laser focus on multi-modal transportation and the equitable distribution of said transportation systems. Communities that are disadvantaged and in which sizable sections of the population reside under the federal poverty line are far from likely to have private transportation. As such, they especially require access to public transportation. Not only should this transportation exist, but it must be frequent, safe, and accessible to everyone regardless of disabilities. Criteria for this aspect include the expansion of complete street networks, increases in the affordability and frequency of the CityLink network, and major investments in public walkways and ADA accessibility. Inputs for this aspect of the tool include CityLink geography, heatmaps, and service audits along with

sidewalk reports and survey data, ADA accessibility data, and bike route GIS/shapefile information. Scoring guidelines for this objective are as follows:

1) If the Project incorporates improvements to Mass Transit System
2) If the project addition of new bike / pedestrian infrastructure
3) Improvement of existing bike / pedestrian infrastructure
4) Inclusion of ADA accessibility
5) Public Participation Process
6) Policy Support Criteria

The guidelines and objectives as outlined above will assist in forwarding equitable, accessible, and sustainable transportation investment that further connects the City of Peoria.

3.3.3 Objective 3: Economic Development

Our tool focuses further on economic development as we view it as a necessity to prioritize a livable, equitable neighborhood that will incentivize private investors to further expand and develop neighborhoods of interest throughout Peoria. We view a focus on development that, itself, is sustainable and does not negatively impact existing residences or developments. We intend to weight land uses along with the feasibility of potential developments into our prioritization tool. Criteria for this aspect of the tool include fostering environments where there can be respectable and economically feasible returns on investment along with streamlined project readiness criteria. Scoring guidelines for this objective include

1) Public Participation Process
2) Project Readiness Criteria
3) Addition or Improvement of Bike/Ped Infrastructure

Inputs for Objective 3 of the prioritization tool include estimates of equalized asset value (EAV) impact on local residential developments. Furthermore, we will also assess lifetime maintenance costs of infrastructure, the overall project planning process, and lastly, the direct wealth generation of the project, namely the ratio of materials compared to labor cost estimates.

3.3.4 Objective 4: Historic Disinvestment

The purpose of focusing on historically disinvested areas is to provide additional options for potential residences and to incentivize additional investment, especially in neighborhoods south of downtown, primarily the warehouse district. Access to the Illinois River and Peoria Lake is a vital asset that the city can use to its advantage. Additional focus on reinvestment throughout the warehouse district through creative reuses of space, be they residential, commercial, light industrial, etc. can infuse Peoria with additional capital investment. Beyond the Warehouse District, additional attention ought to be provided to Peoria's historically disenfranchised neighborhoods southwest of downtown. The key to revitalizing these areas is to invest in major public improvements, namely utility lines including water, electric, and gas services. Because of the per-capita income of these neighborhoods, it is altogether fitting that further investment in public transit options be in the cards for southwest Peoria as most residents will

not have access to private transportation and will, therefore, rely on public systems. Scoring guidelines are as follows:

1) If the project incorporates opportunity to improve sewer, gas, electric, and water utility it is awarded a greater weight; could be additive or number of utility, distance replaced, or homes served.
2) If the project improves access to the Warehouse District.
3) If the project is within the Warehouse District.
4) If the project is in census tracts with above average poverty rates.
5) If the project is in a majority minority census tract.

Inputs for this focus of the tool include the planning process for given projects along with the age of related GIS data, demographic census data, and land use maps and zoning information.

3.3.5 Objective 5: Public Safety and Health

The purpose of considering public safety and health in this tool is to work towards addressing the disparities in health and violence between different Peoria neighborhoods. With the sixth highest level of racial segregation between Black and White residents in the United States, Peoria has struggled to guarantee all of its citizens access to quality education, healthcare, and public safety. Unfortunately, due to historic patterns of racialized wealth inequality and the over-policing of black and brown communities, Peoria's lowest income areas tend to experience higher levels of crime and worse health outcomes, such as life expectancy. The ongoing COVID-19 outbreak has highlighted many of these disparities, as it continues to disproportionately affect African-American neighborhoods due to decades of structural racism. Therefore, health and safety are extremely important considerations in the decision making process which the following scoring guidelines recognize.

1) If the project improves bike and pedestrian safety it is awarded a higher score.
2) If the project increases access to fresh, affordable food options it is awarded a higher score.
3) If the project a public input process, it is awarded a greater weight.

These considerations aim to advance socioeconomic equity by improving the structural conditions in impoverished areas. Resources that may be useful to this end are the Peoria Police Department's crime heatmap, Fire / EMS response location data, Existing full-service grocery store locations, and Vision Zero plans from around the country.

3.4 Other Inputs to Consider

For both quantitative and qualitative analysis, there are additional inputs to consider to strengthen your equity analysis. These may be helpful when looking to prioritize projects in specific areas of a city or neighborhood (e.g. a complete streets downtown versus the north side). Other inputs that may be helpful for the City of Peoria to consider (not included in the current tool):

- Current and future volume/capacity ratios
- Annual average daily traffic (AADT) and volume
- Crash data (rate, intensity, density)
- Land use context (population and employment concentrations)

- Planning consistency (LRTP, comprehensive plans, etc.)
- Environmental sensitivity (wetlands and natural lands)
- Environmental justice (neighborhood demographics)
- Local funding contribution
- Public Inputs
- Inputs from grassroots level initiatives

3.5 Scoring Category and Project Type

Fig. 12 Scoring category and Project type

	Objectives/Key Domain	Scoring Criteria	Project type			
			Roadway	Bike/Ped	Transit	Transit Infrastructure
1	Environment	Environmental Justice	10	5	5	10
		Combined Sewer Overflow	10	5	5	10
2	Multi-Modal Transportation	Complete Streets	15	20	5	10
		Alignment with Goals of Transit Operators	10	10	20	15
		Policy Support Criteria	5	5	10	5
3	Economic Development	Justifiable ROI	5	5	5	5
		Project Readiness Criteria	5	10	10	5
4	Historic Disinvestment	Utility Infrastructure Upgrades	5	5	5	10
		Investment Location	10	10	15	10
5	Public Safety and Health	Crime Prevention	10	5	5	10
		Response to Public Health Emergencies	5	5	5	5
		Reduction of Bike and Pedestrian Fatalities	10	15	10	5
	Total		**100**	**100**	**100**	**100**

As can be seen on the chart (Figure 14), each criteria is scored separately based on project type. One reason for this is that every project will have latent (unintended) and manifest (intended) consequences whether they be positive or negative. For example, the manifest function of complete streets is to

enable safe access for all users regardless of mode of transportation. A latent function of this infrastructure could be decreased policing over actions like jaywalking and cycling on the sidewalk in lower-income communities. Thus, the intended goal will have a higher score than the unintended goal because that is the purpose of implementing the project. Another reason for this separation is that some project types are more equitable than others based on the status of those projects in real life. For example, if the goal of a project is to reduce bike and pedestrian fatalities, cycling and pedestrian infrastructure projects will have a higher score than transit infrastructure projects because the former project most directly impacts the goal.

3.6 Project Prioritization Matrix and Weighting Scheme

The tool format is an Excel workbook with multiple tabs. Goals and objectives are clearly mentioned on the 'Goals and Objectives' tab. Questions and answers to each of them are on the "Data Entry" tab. The scores according to project type are mentioned in the 'Evaluation Criteria by Project Type' tab. The weights based on each project type are mentioned in the 'Roadway Project Type', 'Bike/ped Project Type', 'Transit Project Type' and 'Transit Infra Project Type' tabs. The scores are weighted and tallied in the "Calculations" tab. All the projects, in order of ranks are displayed in the "All Projects, Ranked" tab and the "Project Lookup" tab is used to print a summary of a project's details. All proposed projects will be scored using the tool and after the Tier 1 screening, the projects will be evaluated by the staff to ensure its correctness, while also allowing for considering political feasibility, economic development potential and unaccounted (qualitative) aspects of equity.

Fig. 13 Equity Scoring Criteria and Points for Roadway Projects

Key Domain	Criteria	Weight	Scoring Guidelines
Environment	Environmental Justice Combined Sewer Overflow	0-20	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators	0-30	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or

	Policy Support Criteria		pedestrian infrastructure. 4) If the project includes ADA accessibility. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-10	1) If the project incorporates public input in the planning process. 2) If the project is ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-15	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-25	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

Fig. 14 Equity Scoring Criteria and Points for Ped/Bike Projects

Key Domain	**Criteria**	**Weight**	**Scoring Guidelines**
Environment	Environmental Justice	0-10	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is

	Combined Sewer Overflow		in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	0-35	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessibility. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-15	1) If the project incorporates public input in the planning process. 2) If the project is ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-15	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-25	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

Fig. 15 Equity Scoring Criteria and Points for Transit Projects

Key Domain	Criteria	Weight	Scoring Guidelines
Environment	Environmental Justice Combined Sewer Overflow	0-10	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	0-35	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessibility. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-15	1) If the project incorporates public input in the planning process. 2) If the project is ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-20	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and	Crime Prevention	0-20	1) If the project is in a high crime area it is

Health	Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities		awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

Fig. 16 Equity Scoring Criteria and Points for Transit Infrastructure Projects

Key Domain	Criteria	Weight	Scoring Guidelines
Environment	Environmental Justice Combined Sewer Overflow	0-20	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	0-30	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessability. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-10	1) If the project incorporates public input in the planning process. 2) If the project ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades	0-20	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is

	Investment Location		awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-20	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

3.7 Impacts on on-going and current projects

Our prioritization tool will assist in ensuring that all major capital projects throughout Peoria, be they infrastructure projects, municipal transit projects, or public-private developments are reviewed, funded, constructed, and maintained as sustainably and equitably as possible. The impact that our tool has on current projects in Peoria ought to be noticable and through adopting it, the City of Peoria can ensure that all developments will meet the highest standards possible. Two noteworthy projects in Peoria are the Combined Sewer Overflow (CSO) project currently underway in some of the oldest neighborhoods in Peoria. The CSO project aims to halt current sewer overflows into the Illinois River during torrential flooding that often occurs in the area. The project is underway now, due to the fact that concerns over flooding will amplify as the city continues to press for additional private development along the riverfront as the impacts of climate change make themselves ever more apparent. Our proposed prioritization tool will allow the city to review all of the aspects that must be considered to ensure as successful a project as possible, especially given the nature of the CSO Project. Our project will ensure that public infrastructure investments such as this will have a combined sewer overflow geography that protects vulnerable communities including communities of color, low-income communities, those with disabilities, and the elderly. These guidelines help advance equity goals by prioritizing projects in areas with the greatest need and considering each community's unique context. Another such project currently underway in Peoria is the continued streetscape improvements throughout the Warehouse District. Major capital investment in the warehouse district is top of mind for the City of Peoria and because of the hopes to turn this neighborhood into a more upscale residential, commercial, and entertainment district, all investments must be made with the highest consideration for safety, sustainability, and especially in this case, historic disinvestment. Our tool will ensure that the project incorporates opportunities to improve sewer, gas, electric, water, and other utilities. Furthermore, our

project will ensure that any residents displaced as a result of this project will see to it that the city will assist them in relocating. The prioritization tool will ensure that equity and sustainability are top of mind throughout Peoria for all major city investments.

3.8 Limitations

While we carefully considered every detail of the tool, from the key domains to the criteria and weight, there are possible limitations to the tool. Firstly, this tool was created without community input. If equity is a priority, then a redistribution of power in the planning process is necessary. Sherry Arnstein's Ladder of Citizen Participation (1969) illustrates eight degrees of citizenship participation ranging from non-participation to citizen control. The criteria in this equity tool was done without the partnership of Peoria's residents. Thus, when being implemented, this problem can be rectified by redetermining the criteria with the input of the communities who will be impacted (stakeholders) by a project. Another limitation is that this tool is static and does not consider timing. For example, this tool was in the works before the COVID-19 pandemic. This pandemic has exposed gross inequities in cities across the world. As a result, what was a priority need for a community or a priority project for the City of Peoria could have possibly shifted away from what our initial focus was. The weight given to each scoring criteria could weigh differently before and after a phenomenon. This can be regulated by balancing other factors. Lastly, one limitation to acknowledge is that this tool does not necessarily consider whom the equity will benefit. It does not consider social identity (e.g. race and age) and the most needy communities, only if a project is equitable based on criteria deemed to make communities safer and cleaner. This could be remedied by analysing demographic information in addition to using the prioritization tool.

3.9 Conclusion

Although Peoria has a long way to go towards remedying many of its inequities related to health, economic opportunity, educational attainment, and access to transportation, it has the potential to begin addressing this legacy right now. Cities like Madison and Oakland have proven that this kind of policy change is not only possible in a city like Peoria, but effective. They have seen their most disadvantaged areas benefit tremendously from equity-based infrastructure investments, which increase residents' access to employment, education, and shopping. We believe that the tool we have proposed is the most sensible next step because it considers so many aspects of a community. Transportation is about so much more than moving people from point A to point B. At a fundamental level, the right kinds of transportation investment have the ability to revitalize desolate streetscapes, increase health and wellness by reducing pedestrian fatalities, and improve a city's long-term environmental sustainability. With this in mind, we hope that the city of Peoria is ready to take the next step and adopt an equity-based project prioritization tool.

Report II

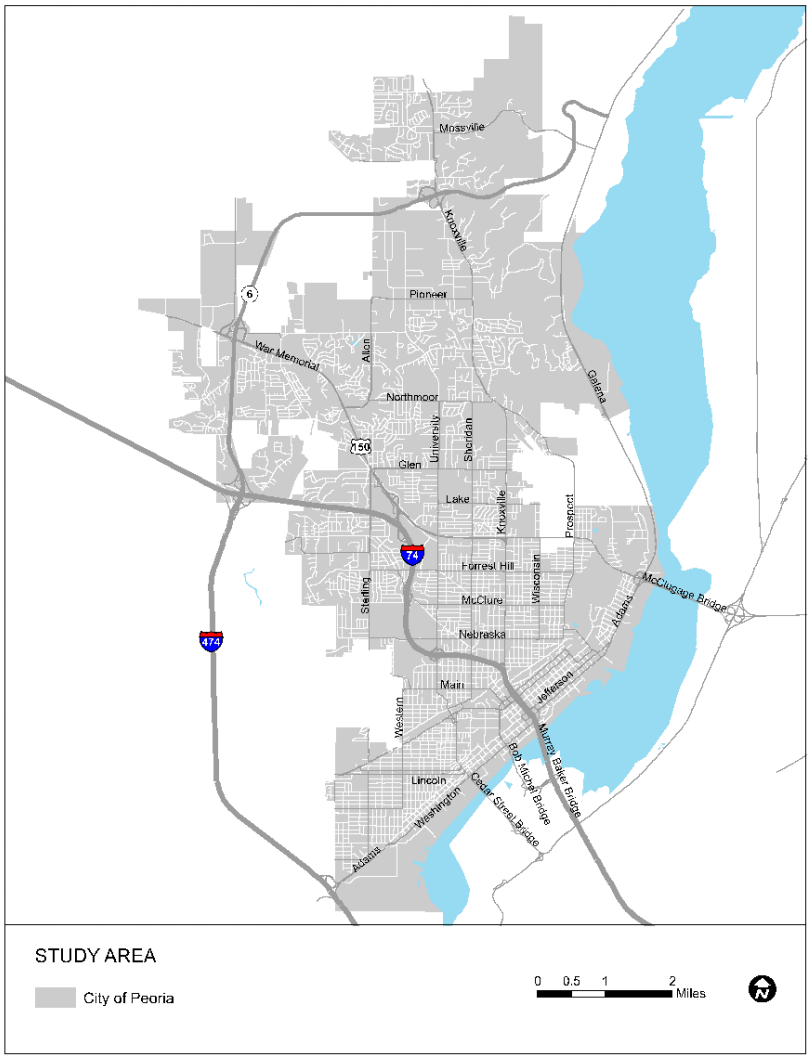
UP 432 Transportation Equity
Assignment 2
Equity Prioritization Tool for the City of Peoria, IL

Spring 2020

Prepared by: Ana Mendoza, Djordje Takov, Shubhangi Rathor, Wataru Morioka

Table of Contents

1. Introduction



Peoria is a city located in North-Central Illinois, with a rich employment history centered around breweries and distilleries. However, in the 20th century the machinery manufacturing corporation Caterpillar became the dominant local industry, employing as many as 30,000 people and maintaining a world headquarters in downtown Peoria for over 110 years. After relocating 300+ jobs to Deerfield in 2017, Caterpillar employs less than 12,000 people at their Peoria operations. Unfortunately, due to large employer losses and disinvestment throughout recent years, Peoria has been shrinking in terms of funding and population. Much of the former middle-class housing that directly surrounds the city center has been abandoned by the white communities for other cities, with the older neighborhoods in the bluffs of Peoria becoming largely lower-middle and lower class today. As such, there has been little enthusiasm for investment, with an incredibly limited tax base. Furthermore, like most

American cities in the middle of the last century, Peoria embraced a suburban growth model that reflected demand for single-family, detached homes with a quick commute to the city center via private car. Suburbanization had a major social impact on Peoria in terms of socio-economic segregation between the central city and suburbs, but also began to place a tremendous financial burden on the local government.

According to “Governing: The Future of States and Localities”, Peoria has a Black-White Dissimilarity Index of 0.724, making it the sixth-highest level of segregation measured between Blacks and Whites of any metro area in the country. The racial segregation in the city is shown in figure 2. Factors like school and residential segregation still have significant implications for the city today. For example, Black

unemployment rates are five times higher than White unemployment rates at 25.2% and 5.3%, respectively. The income disparity in the city is shown in Figure 3.

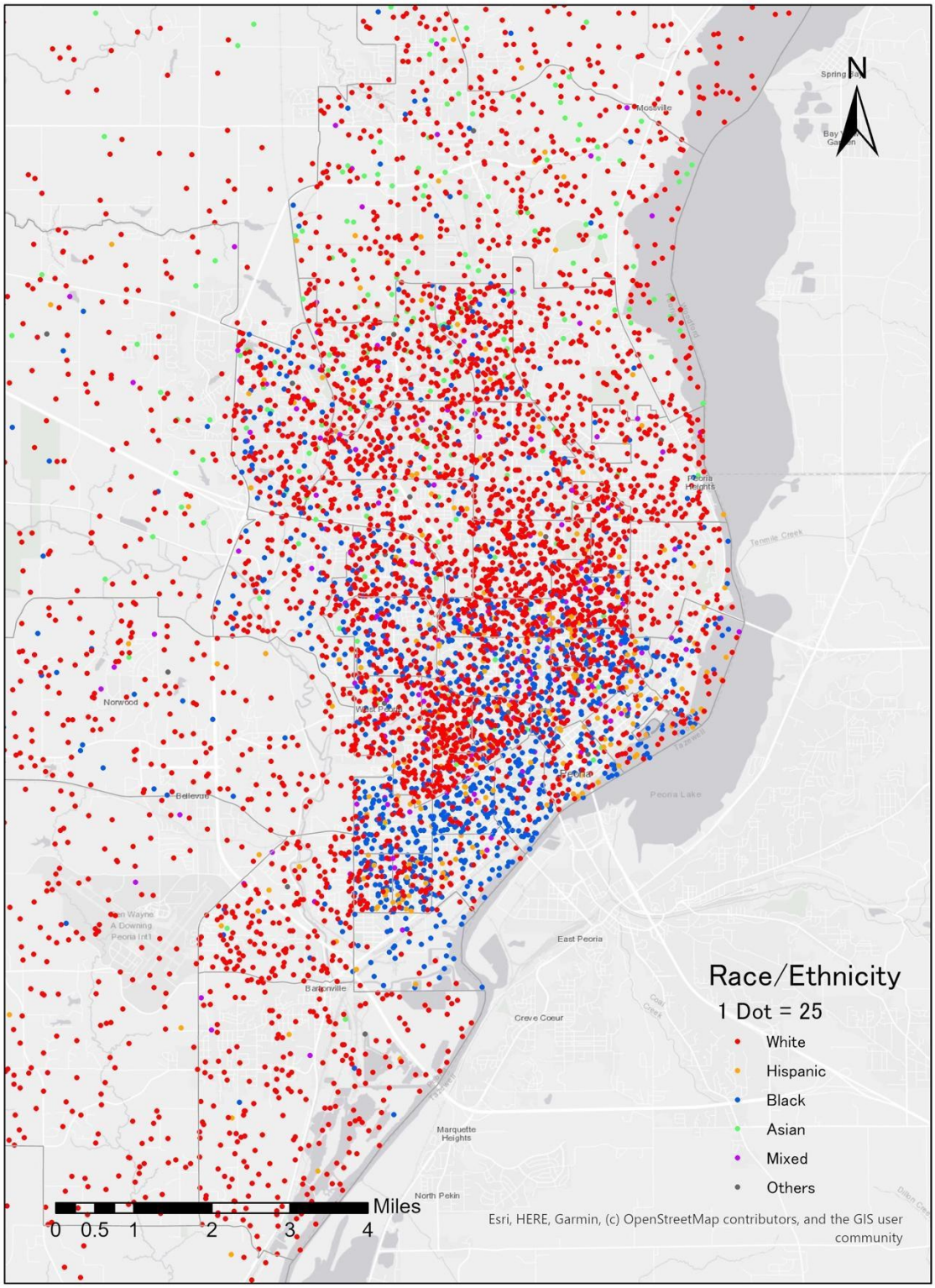


Figure 2: Racial Segregation In Peoria

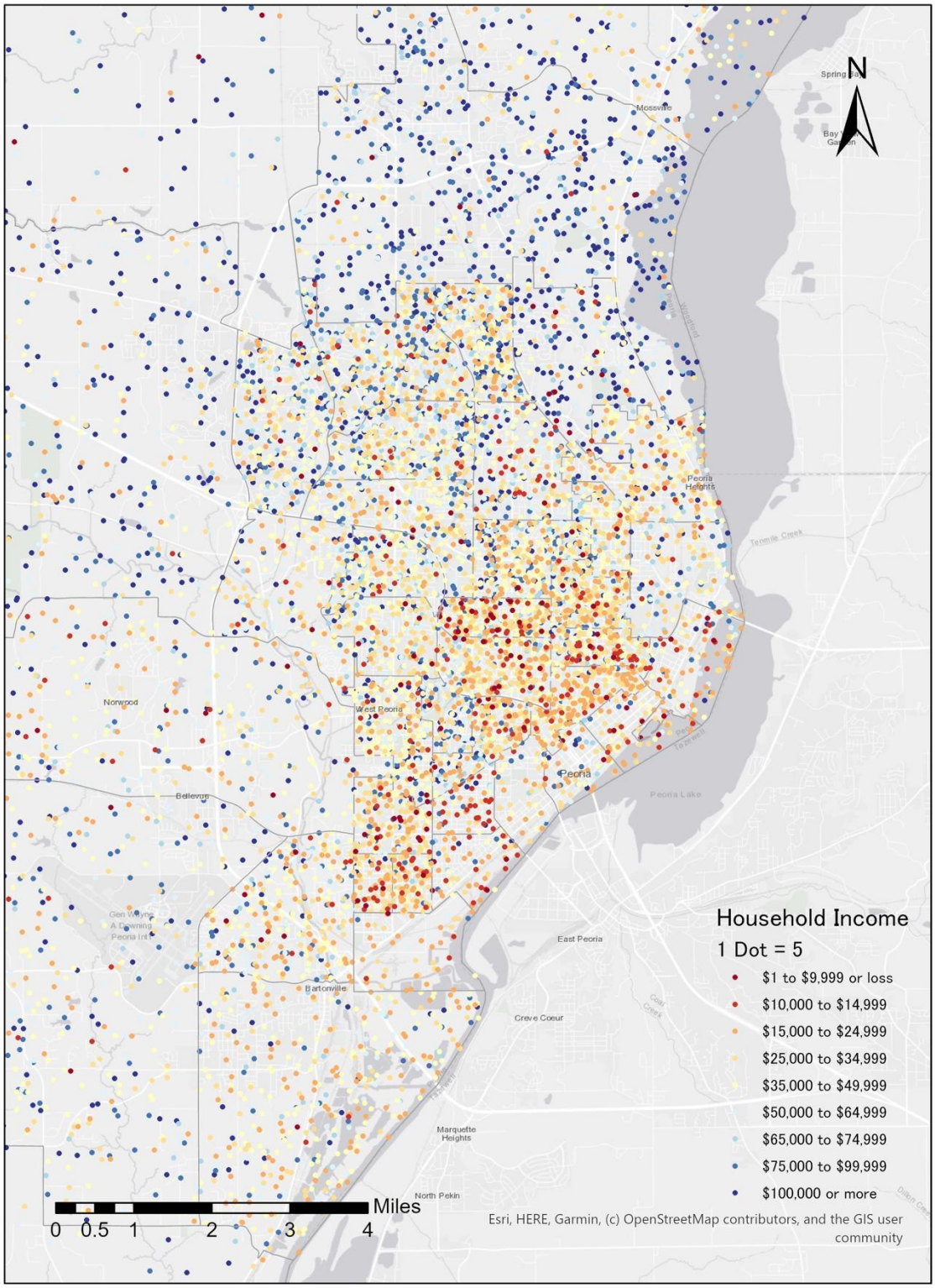


Figure 3: Household Income in Peoria

1. Context

Taking the issues aforementioned into consideration, Peoria has asked for help in developing a transportation equity tool to help plan new transportation changes in a manner that best serves the entire community. Peoria is trying to tackle the issues of inequity, disinvestment from historic neighborhoods, inaccessibility, and public safety in a variety of ways. A transportation equity tool is needed because, especially with limited funds and declining infrastructure and services, it is imperative that the city use its transportation funds wisely to create systems that tackle—or at the very least not contribute to—the issues listed above. All people, regardless of age, ability or gender, should have access to healthy food, jobs, recreational activities, schools, and more. With the equity tool proposed in this document, the goal is to help city planners determine how equitable the transportation project proposed is and could become. The tool includes different facets of transportation planning and uses a matrix system to evaluate how equitable the project is based on how well the project addresses each facet.

The first stage of this study focussed on examining the existing conditions in Peoria, wherein we analyzed the socio-economic conditions, the demographic structure, and the existing and proposed land use and transportation infrastructure. The inferences from this study inform the proposed equity prioritization tool. The City of Peoria is set to undergo infrastructural improvements in the form of proposed CityLink Bus routes as part of the 2019 proposal, and Peoria Bicycle Master Plan, 2016.

2. Tool Development Background - Case Studies

2.1. Oakland, California

The City of Oakland Transportation Project Prioritization Tool was created by the City of Oakland's Transportation Planning and Funding Division (TPFD) for the purposes of establishing common prioritization criteria to be used by all of the engineers, planners, and administrators of the city. They identified that when utilizing different criteria at different levels, the maximum efficiency of project planning and development is jeopardized. Unified tool provided efficiency and staff time savings to city employees, as well as procedural transparency for the general public.

This tool rates each project with a score of 0-100, based on how it fits within the predefined goals and criteria. The City of Oakland identified three categories for project scoring: policy support (how well it fits within other policies and goals of the municipality), project readiness (how well planned

the project is, and how soon can work begin), and complete streets (whether or not the project satisfies and advances complete streets objectives).

All projects are ranked based on their score from 0-100 as well as categorized into three tiers based on their price (less than $1M, $1M-$5M, and more than $5M).

Policy Support – defined by legislative intent and inter-agency support. Underlying criteria used by this tool can be found below:

1. City Plan Adoption
2. Partner Agency Plan Adoption
3. Regional Transportation Plan Inclusion
4. Transit-Oriented Development
5. Priority Development Area

Project Readiness – assesses how ready the project is for final design and implementation.

1. Public Process
2. ROW Acquisition Required
3. Staff Leadership
4. Environmental Clearance
5. 35% Plans

Complete Streets – whether or not the project contributes to moving all people across all available modes rather than only automobiles

1. Pedestrian
2. Bicycle
3. Transit Operation and Access
4. Motor Vehicle

The prioritization tool is part of Tier 1 of the prioritization process, subsequent Tier 2 review is headed by TPFD staff and concentrates on environmental justice concerns, geographic equity, and other issues. This portion of the process is not automated, or score-based and is more sensitively performed.

3.2Lincoln, Nebraska

This prioritization tool has been developed as part of the Lincoln, Nebraska Bike Plan. The goal of the plan is to strengthen and expand the already extensive bicycle infrastructure system, guided by the most viable projects as well as ones with the most impact. Projects are prioritized in a manner that favors projects that will extend the network before projects that will improve the quality of existing infrastructure unless there are serious safety concerns with the existing infrastructure. Unlike other tools, this tool is created around 157 chartered projects that have been identified by the City of Lincoln through a thorough process of community engagement. One of the goals of the plan and the prioritization tool is the recognition of the city as a Gold Level Bicycle Friendly Community by the League of American Bicyclists.

Based on the Prioritization Tool, each project out of the 157 will receive a score of 0 to 10, 10 being the best in each of 5 identified categories, for a total possible number of points of 50. In addition to quantitative scoring, a GIS analysis was performed as well as assessing the reach of each project into the surrounding communities. Criteria used to delineate scoring categories are:

- Barriers – whether the project improves accessibility around a community-identified barrier
- Bicycle Demand – potential bicycle demand for the project based on a previously developed bicycle demand model
- Safety – measures the number of bicycle crashes within the project area as well as the existing level of traffic stress (LTS)
- Connectivity – measures how the project closes the gap between existing bikeways, how it expands the on-street network and connects major intra-city destinations
- Social Equity – whether the project is located within a low income or minority population community

The next step of the prioritization accounts for the costs of the realization of these projects, separating them all into three categories: low cost (signing & striping, restriping, RFRB), medium cost (bicycle boulevard, sidepath construction, node modifications, signal), and high cost (construction, and bridge or tunnel).

Lastly, all the projects are stratified based on their Ease of Implementation. They are split into two categories: easy (shared lanes, sidepaths, intersection enhancements, and restriping), and more challenging (bike boulevards, construction, restriping (road diet), and parking removal).

3.3Seattle, Washington

This prioritization tool was developed by the Office of Planning and Community Development (OPCD) in order to meet the request from City Council to formally align its capital budget with community planning initiatives. This project is based on the Seattle Comprehensive Plan, Seattle 2035; therefore, the following four aspects are core values: 1) Race and Social Equity; 2) Environmental Stewardship; 3) Community; 4) Economic Opportunity and Security. According to the report, one of the important aspects of this tool is to support more objective decision-making about priorities and helps ensure consistency with the Comprehensive Plan. The tool also helps to embody our commitment to the Race and Social Justice Initiative. Consistent with the Comprehensive Plan's Growth and Equity Analysis, the Comprehensive Plan directs us to consider areas of the city with equity concerns such as areas with displacement risk, higher percentages of people of color, poor health outcomes and environmental justice concerns, and to consider the advantages of high access to opportunity areas. Additionally, using data to inform decision-making helps mitigate historic barriers that communities of color, low-income communities, and immigrant and refugee communities face in advocating for their needs. To identify areas of greatest relative priority, OPCD analyzed and weighted data that represent aspects of the Comprehensive Plan criteria or considerations for undertaking community planning. In general, the criteria focus attention on urban villages and urban centers, equity considerations, growth considerations, alignment between transit

and growth, and opportunities to coordinate around capital investments. This approach is called the Geospatial Analysis in the report. More specifically, the following items are taken into account mapping.

Equity Consideration

- Access to opportunity indicators such as proximity to parks and community centers, sidewalks, grocery; graduation rates; and property appreciation
- Public safety indicators such as police reports and pedestrian collisions
- Public health information such as asthma rates and life expectancy
- Environmental burden indicators such as contaminated sites, flood-prone areas and noise pollution
- Displacement risk such as household income, proximity to transit, proximity to services, median rent
- Marginalized populations, such as English language learners and poverty

Growth Considerations

- Population growth
- Employment growth
- Housing unit growth
- Future sound transit and bus Rapid Ride investments
- Existing Density, such as existing population, employment and housing units

Based on the result of geospatial analysis, as well as Mayor, Council, and community inputs, the Priority Planning Areas were decided. It can be safely said from this fact that Seattle City has been attained the goal of data-informed decisions by utilizing this priority tool.

1. Proposed Equity Prioritization Tool

1.1. Introduction

The investment prioritization tool has been developed around 8 parameter categories defined by the City of Peoria and its Transportation Commission. These parameter categories serve as the basis for the point system – enabling each project to receive a compound score for its cumulative effects on the most important needs of the city. Based on the project location, whether inside or outside of a low-income area (delineated by the City of Peoria staff, for most up to date information) the cumulative project score can be weighted or unweighted. Projects located within low-income areas receive a weighted score, which is calculated by multiplying the cumulative unweighted score by

1.5. This calculation should give priority to projects located within areas where public investments have not recently occurred.

4.2Project Evaluation Methodology

Combined Sewer Overflow Impact

Combined sewer overflow (CSOs) contain untreated or partially treated human and industrial waste, toxic materials, debris, and stormwater. In a CSO, toxic waste and human waste, and stormwater both get filtered into different channels, where they are either treated or, in the case of stormwater, released into nearby bodies of water. CSOs are a priority water pollution concern for Peoria—and the nearly 860 municipalities across the U.S. that have combined sewer systems. In a combined sewer system, any heavy rainstorm or precipitation event that overwhelms the sewer system could accidentally wash human waste, toxic waste, and stormwater into the nearby bodies of water, thus polluting said body of water.

The prioritization tool parameter for evaluating the Combined Sewer Overflow Impact consists of five subcategories, each focusing on different aspects that each project should seek to satisfy to achieve satisfying results and a healthier environment. A point is awarded if the project is located within CSO geography, incorporates green infrastructure such as open drainage or swales, removes grey infrastructure, contains infrastructure designed for future expansion, and fully separates waste from storm water. These parameters ensure that the project cooperates with the existing infrastructure, and also minimizes pollution due to system overflow.

Public Safety Impact

Public safety is emphasized not only in this project, but throughout Peoria's several projects. Everyone should be able to walk, bike or take public transit to different parts of the city without having to fear for their safety. In order to ensure that public safety is taken into consideration in an equitable manner, public safety parameter was divided into five subcategories. One point is awarded if the project is located within a high-crime area, located near a traffic black spot, incorporates public safety infrastructure, increases "eyes on the street" or otherwise increases pedestrian traffic, and incorporated principles delineated by local community safety assessments.

Mass Transit Impact

Mass Transit infrastructure in Peoria is crucial to mitigate the impacts of long-lasting disinvestment in low-income, minority neighborhoods. A positive net impact of mass transit improvements can result in increasing accessibility to more employment opportunities throughout the city and in the central business district. The residential areas that lack access due to historical disinvestment can benefit from improvements in the transit system with increased opportunities and mobility. The final report published by the Greater Mass Peoria Transit District (GPMTD) in 2019, outlines a comprehensive study of the CityLink transit system in Peoria followed by recommendations. The study and proposals are informed by an extensive community engagement process to include different stakeholders as a way of ensuring equitable distribution of benefits and burdens. (Greater Mass Peoria Transit District, 2019)

The mass transit impact in the proposed prioritization tools weights the impact based on seven categories. These categories are - the creation of public transit shelter and supportive infrastructure, expansion of the extent of coverage of transit system i.e., the addition of new routes or bus stops, improvement in regional transit connectivity, incorporation of other modes of transport/ intermodal connectivity, creation of a transfer point, and reduction in travel time and cost. The idea behind the categories of the prioritization tool evaluation is to calculate the impact of improvements by measuring access, increased mobility, increased connectivity, reduction in travel time, and cost.

Bicycle Infrastructure Impact

Promoting and providing active transportation options is important for ensuring healthy lifestyles. Good bicycle infrastructure has also proven to promote safety, reduce congestion, and increase mobility for all. The Peoria Bicycle Master Plan addresses these issues by the provision of bike infrastructure throughout the city with the help of extensive socio-economic analysis and public involvement. (City of Peoria, 2016)

The proposed prioritization tool measures bicycle infrastructure impact using five categories. These categories include - improvements in existing bike infrastructure, provision of new infrastructure, provision of dedicated bike-friendly infrastructure, integration and connectivity with public transit, and location of infrastructure in points of interest. The points of interest are strategic locations that improve access to jobs, recreation areas, medical facilities, transit stations, etc. The aim of the prioritization tool is to quantify the increase in access and mobility, an increase in job opportunities, and promotion of health and safety among communities that have previously faced disinvestment.

Pedestrian Infrastructure Impact

Pedestrian infrastructure is of utmost importance to achieving equity goals outlined by the City of Peoria. Peoria is a city experiencing a stark divide between historically disinvested, traditional, urban neighborhoods near the Illinois river shore and inland, recently developed, greenfield suburban neighborhoods. In areas battered by disinvestment and neglect, quality pedestrian infrastructure can serve as the new lifeline – enabling residents to access other portions of their community and the whole city with ease. For those who do not earn enough to own a personal vehicle, bicycle and pedestrian infrastructure improvements create an easier link to entertainment and employment. The prioritization tool parameter evaluating Pedestrian Infrastructure consists of five subcategories focusing on different aspects that each project should seek to satisfy to achieve satisfying infrastructural results and the useful built environment. A point is awarded for resurfacing or improving (expanding, widening, etc.) existing infrastructure, establishing new infrastructure where none exists, creating a pedestrian infrastructure that eases access to public transit, enables children to access schools in a safer manner (eliminates unsafe crossings, unprotected right of way, etc.), and improves ADA accessibility. These parameters cover the needs of all pedestrians, but also place an additional requirement for prioritizing most vulnerable pedestrians (those who use public transit, children, and those with physical disabilities).

Utility Improvement Impact

Utility improvement was delineated by the City of Peoria as one of the necessary improvement categories for older portions of the city. In combination with the Combined Sewer Overflow infrastructure, aged water and electricity infrastructure within the oldest parts of the city may need replacement and modern upgrades. This need has been captured by the parameter section focusing specifically on utility improvements that may be contained within projects proposed by the city, or one of the other public agencies.

Utility improvement impact is measured through five subcategories structured around different aspects of improvements that utility projects, or their incorporation into other projects, may bring. A point is awarded for expansion or redundancy installation of any utility, green infrastructure inclusion in projects, solving utility issues for 10 households or more, removal of known choke/interruption points, or if the project supports CSO improvement objectives. Measuring the objectives of the CSO improvements is at the discretion of the City of Peoria – as they can define more accurate aspects necessary for the most effective system replacement.

Net Economic Impact

The net economic impact is the kind of regional-scale index to assess transportation investment. For example, GDP, tax revenues, and unemployment rate are the typical indexes in the report of transportation planning but these are aggregated by whole regions, which means it is hard to take into equity perspective. However, there are some approaches to consider it. For example, job accessibility would be a substitute for the unemployment rate. Household income would also play a role in finding a good place to invest.

Historic Disinvestment Impact

A lack of adequate infrastructure can hinder reinvestment, posing particular challenges for disinvested communities whose limited financial capacity may impair their access to regional and federal transportation resources. To mitigate this negative exacerbation, considering the Historic disinvestment impact is important. it might be measured by looking at a capital expenditure of the Community Development & Public works Department.

2. Limitations of the Proposed Tool

- The tool does not provide a means to calculate project performance. The calculations and weights assigned to different projects are based on existing conditions and estimated outcomes of the projects.
- The tool lacks an automation feature which only allows entering manually collected data. A future update of the tool could include an excel macro that automatically stores the results.

3. Conclusion

The City of Peoria has experienced significant population loss in recent years. The decline of the manufacturing industry in the city and lack of investment has resulted in people moving away from the city in search of better quality of life. Peoria has been working on improving facilities in the disinvested historical neighborhoods. The prioritization tool for Peoria has been developed to promote equity and mitigate disinvestment in certain areas of the city. The tool aims to weigh the impacts of different planning initiatives on communities throughout the city. The tool combines eight carefully-selected parameters to quantify the impacts of projects and ensure an equitable distribution of benefits and burdens. The city has identified certain disinvested neighborhoods which have limited access to job opportunities, recreational facilities, medical facilities, grocery stores, and other opportunities. The aim of this study and the proposed prioritization tool is to improve access and mobility in these areas and foster safe, healthy, economically and environmentally-sustainable community development. The way to ensure a more robust economy is by investing in people and opportunities for them. The economic development in any settlement is preceded by the creation of supportive and accessible infrastructure for people and businesses to thrive.

4. References

City of Oakland (2012.) Transportation Project Prioritization Technical Report, *Transportation Planning and Funding Subdivision*

City of Peoria. (2016). Peoria Bicycle Master Plan. City of Peoria.

City of Seattle (2018.) Community Planning Practice + Prioritization: Report to Seattle City Council PLUZ Committee, *Office of Planning & Community Development*

Greater Mass Peoria Transit District. (2019). CityLink On The Move.

Lincoln Metropolitan Planning Organization (2019.) Lincoln Bike Plan, On-Street Bicycle Facilities Plan, *Lincoln Metropolitan Planning Organization*

5. Appendix

Appendix I: Proposed Equity Prioritization Tool

Project Prioritization Tool

Developed by University of Illinois at Urbana-Champaign UP 432: Transportation Equity Students. Spring 2020.

Please insert the name of your project here

Instructions: *If the project satisfies a parameter, it is awarded 1 point. If it does not, it is awarded 0 Points.*

	Points
Located within CSO geography	
Incorporates green infrastructure (open drainage, swales)	
Incorporates grey infrastructure removal	
Contains infrastructure designed for future expansion	
Fully separates waste from storm water	
	0

Located within a high crime area	
Located near a traffic black spot	
Incorporates public safety infrastructure (lights, police call phones)	
Increases eyes on the street or otherwise increases pedestrian traffic	
Incorporates principles delineated by local community safety assessment	
	0

Creates public transit shelter and supportive infrastructure	
Adds an additional bus stop or expands transit coverage	
Improves regional transit connectivity (suburbs to core)	
Incorporates other modes of transportation	

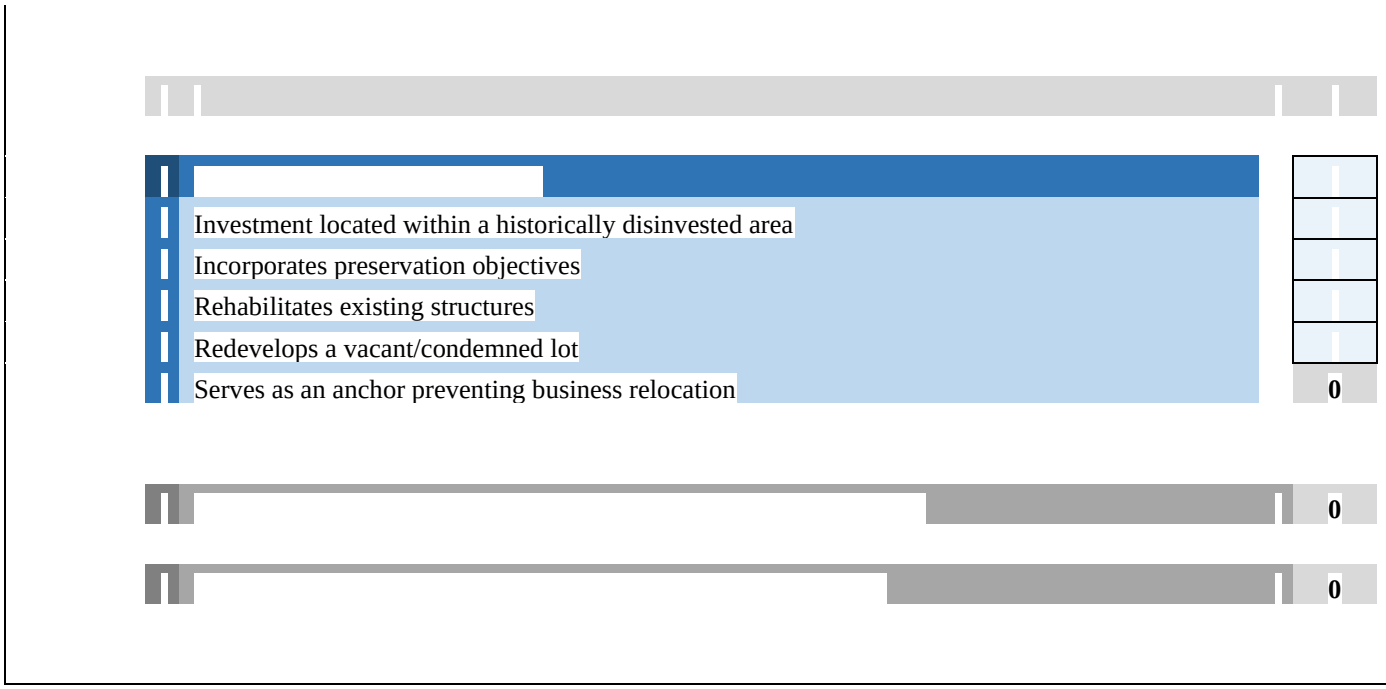
Reduces travel time	
Reduces travel cost	
Intersects two or more transit lines/creates a transfer point	0

Resurfaces or improves exisitng bicycle infrastructure	
Creates new bicycle infrastructure where none currently exists	
Creates dedicated bicycle infrastructure	
Creates a connection to public transportation	
Located along points of interest (parks, job centers, shopping areas, schools)	0

Resurfaces or improves existing pedestrian infrastructure	
Creates new pedestrian infrastructure where none currently exists and is needed	
Creates a connection to public transportation	
Incorporates safe route to school principles	
Incorporates infrastructure improving ADA accessiblity	0

Expands/strenghtens utility (water, gas, electric, sewer) infrastructure	
Incorporates green infrastructure into the design	
Solves a utility issue for at least 10 housholds	
Removes a known interruption point (leak or powerline defect)	
Supports CSO improvement objectives	0

Project is a public-private partnership	
Improves job accessbility	
Increases nominal GDP	
Creates new tax revenue/supports new businesses	
Creates jobs for the (hyper)local job market	0


Investment located within a historically disinvested area
Incorporates preservation objectives
Rehabilitates existing structures
Redevelops a vacant/condemned lot
Serves as an anchor preventing business relocation
0
0
0

Report III

Submitted by:

Arum Lee, Brandon Yates, Emily Hutchinson, Lena Walker and Manika Shrivastava

UP 432 Transportation Equity

University of Illinois at Urbana - Champaign

Table of Contents

Objective: How will the project address historic disinvestment within the neighborhoods?

Scoring:

Limitations:

References and Appendix

Overview

The ultimate goal of this project is to design an equity prioritization tool for the city of Peoria that will help planners and other local officials incorporate equity into their analysis and selection of transportation projects. Building off our preliminary report and an additional review of region-specific equity prioritization methods, this document provides a detailed walk-through of our equity tool.

Region-Specific Examples:

Our previous report looked at examples of equity prioritization tools developed across the United States. For this report we narrowed our focus to Midwestern cities, ideally of comparable size to Peoria. Three examples stood out: the Northeast Ohio Areawide Coordinating Agency's Transit-Oriented Development project prioritization tool (Cleveland, OH), the Madison Area Transportation Planning Board equity prioritization scorecard (Madison, WI) and the City of St. Louis Equity Indicators report (St Louis, MO).The NOACA TOD project prioritization tool consists of nine categories based on objectives from the Long Range Transportation Plan. Each category's score is calculated on a five point scoring system, and each of these scores is weighted according to a five-point scale ranging from "very poor" to "very good." This system of weighted scores and subscores, divided by objectives, very closely resembles our tool. An additional feature of the NOACA prioritization tool is a typology of different neighborhood types, such as "urban core" or "suburban hub", which helped to assess the potential impact of TOD within that area based on its existing characteristics. An example of this feature's usefulness is the following graph from the report, which shows how many kinds of places can be reached by each mode.

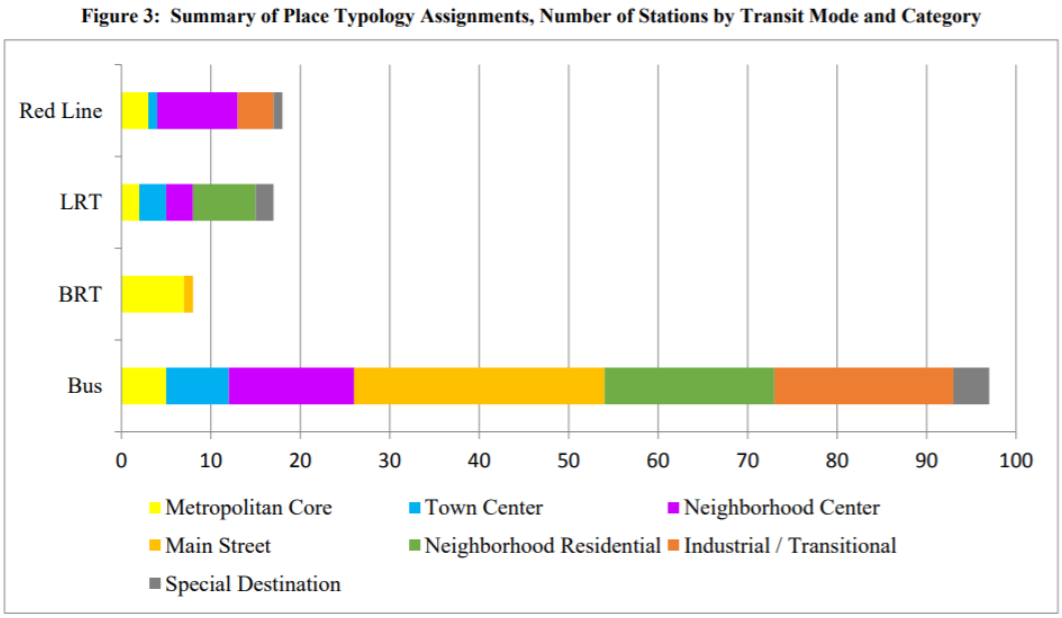


Figure 1. Source: NOACA TOD Regional Scorecard and Implementation Plan, 2016.

The MATPB equity prioritization scorecard was included in a report by the Center for Transportation Equity, Decisions, and Dollars (CTEDD), where it was highlighted for explicitly addressing equity in transportation project prioritization (CTEDD 2018). The MATPB framework focuses primarily on Environmental Justice communities and public health opportunities as a means of achieving equity, using a blend of quantitative and qualitative methods. One of their most illustrative techniques was creating buffers in GIS mapping to show access limitations to economic opportunities and grocery stores for public transit riders. While MATPB may address equity issues more explicitly than is currently feasible in Peoria, their inclusion of equity as a main objective within transportation planning serves as an example of how even smaller metropolitan areas can develop innovative approaches.

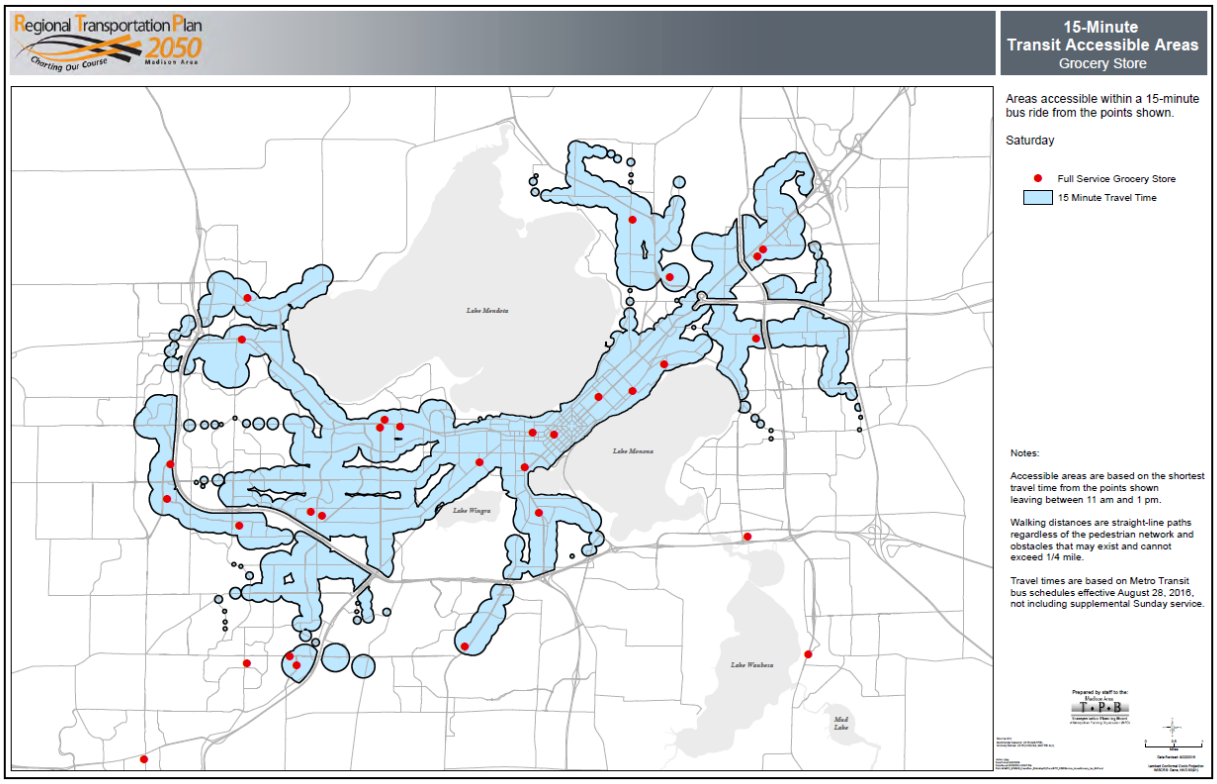


Figure 2. Source: MATPB 2050 Long Range Transportation Plan, 2018.

Although not directly related to transportation, the Equity Indicators report from St. Louis highlights the need to develop resilience amongst all communities if the city hopes to address future challenges and provides many useful examples of equity indicators that can be used to demonstrate racial, economic, and geographic disparities. In keeping with Peoria officials' question of "what does it look like to succeed together?", our tool focuses not just on preventing the inequitable distribution of burdens, but also ensuring that there is an equitable sharing of benefits from transportation investment. Recent events related to the COVID-19 pandemic have demonstrated how truly interdependent communities are, and how monetary contributions are not the only value that residents add to a city: for example, although some residents may contribute more in taxes, many essential services are staffed by low-wage workers who rely on access to public transit to reach their jobs and put themselves at risk each day. Our tool looks at outcome-based criteria to help Peoria identify which projects will have the greatest impact for improving equity.

Communities of Concern in Peoria/Other Designations:

As mentioned in our previous report, the implications of historical residential segregation in Peoria are significant. Peoria has a Black-White Dissimilarity Index of 0.724, making it the sixth-highest level of segregation measured between Blacks and Whites of any metro area in the country (Maciag, 2019). The ramifications of residential segregation show that blacks and Hispanics who live in highly segregated and isolated neighborhoods have lower housing quality, higher concentrations of poverty, and less access to good jobs and education.

In particular, the data collected from the National Resource Network shows that South Peoria is a racially/ethnically-concentrated area of poverty (R/ECAP)1 with poverty exceeding 90 percent of residents, and is the location of the only R/ECAP tracts in the wider Peoria metropolitan area. Within this zone Blacks are 65 percent of the population, but only 27 percent of the population citywide. Based on 2010 census data, the Southside R/ECAP tracts accounted for more than 50 percent of the entire impoverished population of Peoria (2016). Additionally, the value of many properties in the South Village TIF is estimated to be under $10,000, so many landlords lack incentive to invest in their properties and instead abandon them. We recommend that the neighborhoods which have experienced the least public investment remain a primary focus of the city's investment capacity. For the purpose of this project, we recommend that the neighborhoods in Peoria be categorized based on need. Determination of economically disconnected areas should be based on neighborhood indicators such as unemployment rate, median annual household income, educational attainment, and percentage of population receiving public aid.

Figure 4: Household Income by Block Group, as a percent of Median Family Income (MFI)

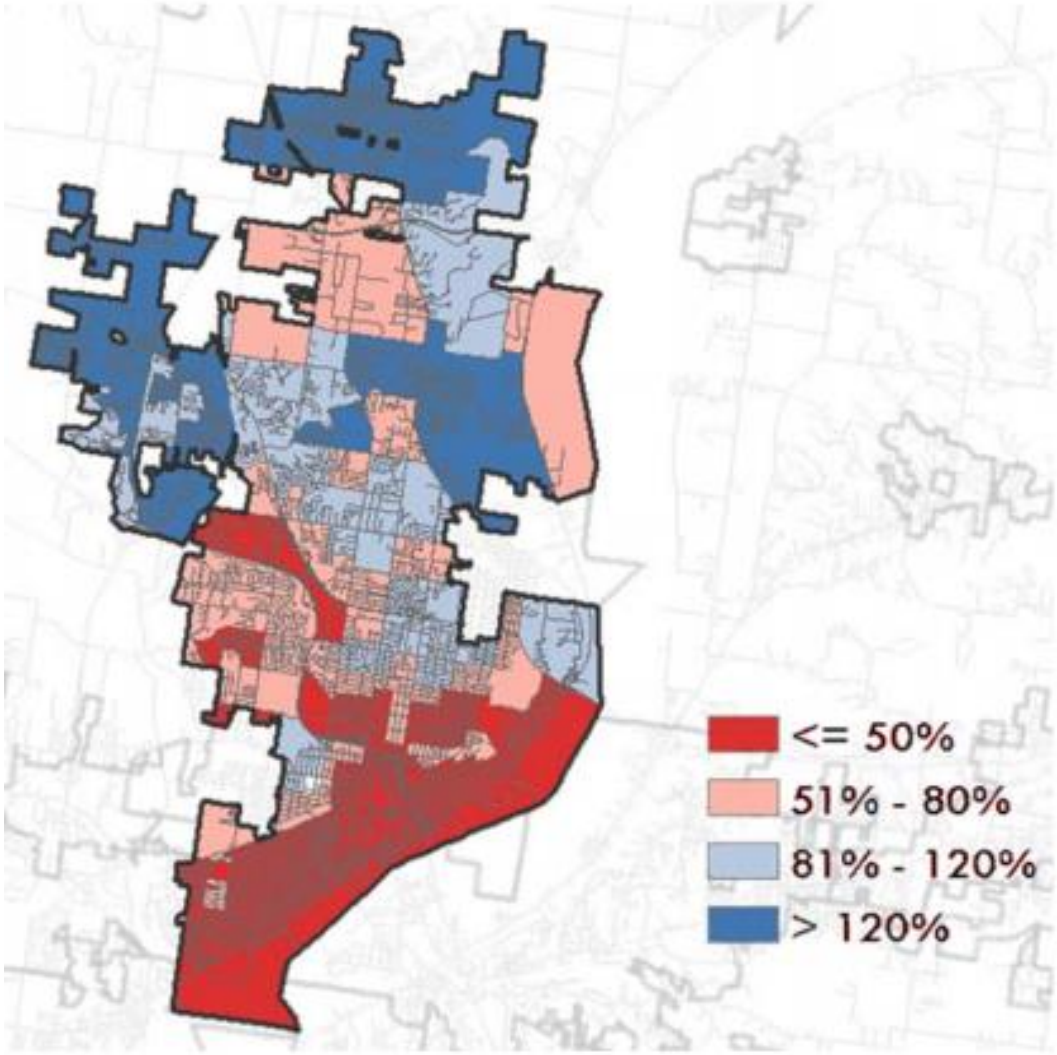


Figure 3. Source:

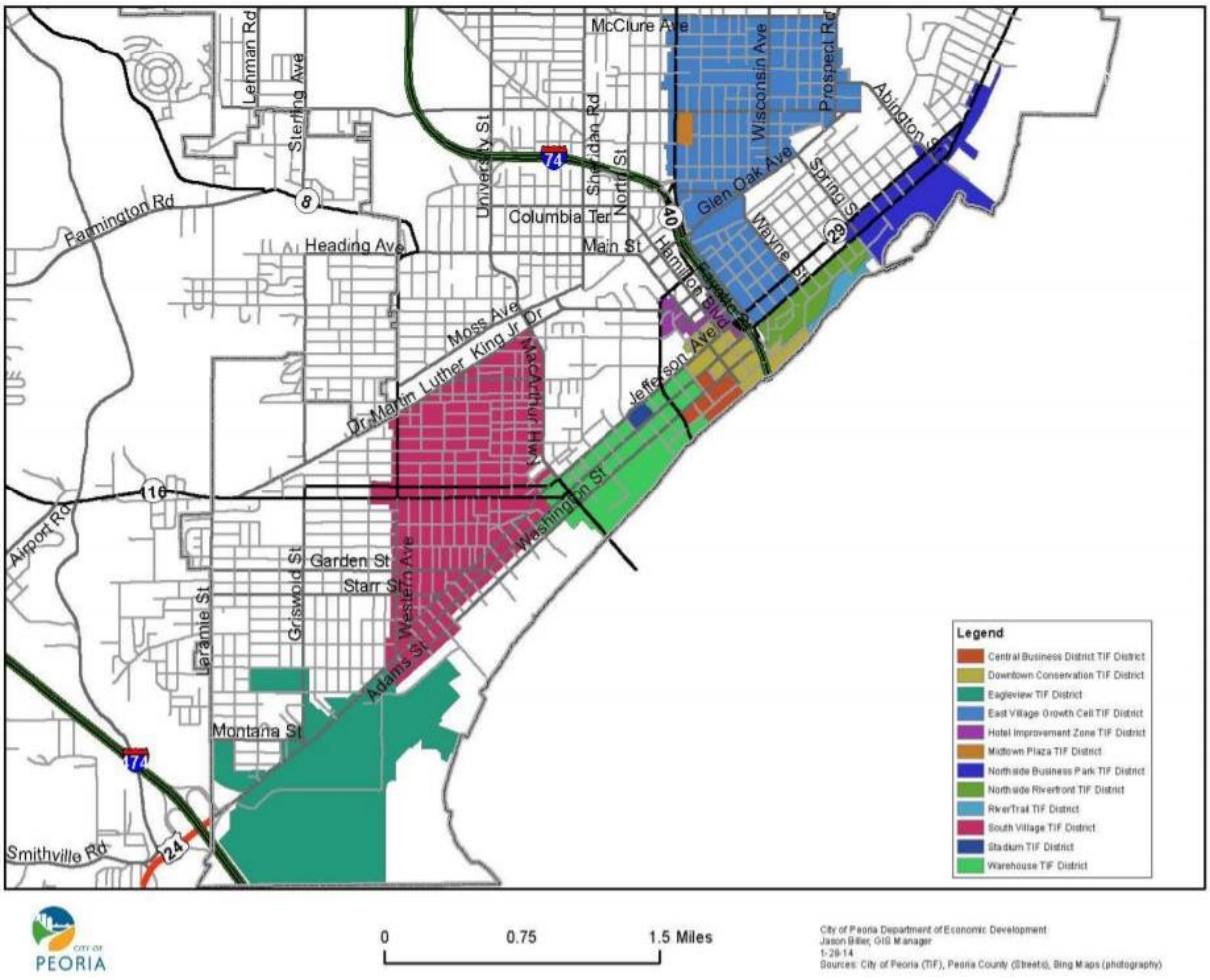


Figure 4. Source: City of Peoria

Tool Structure

The CTEDD report identified two common methods for creating an equity prioritization tool: weighted scorecards and holistic assessments (Williams et al, 2018.) While holistic assessments allow for greater community engagement, we chose to develop a weighted scorecard because it fits better with Peoria leadership's interest in data-driven tools, current staffing and budget constraints, and their concern over the political challenges associated equity objectives. The scorecard is intended to be a framework to help Peoria begin shaping the conversation around equity, with the possibility of engaging communities more directly in its use. Possibilities for a future development of this tool include an interactive web app where Peoria communities could set their own weights and scores, which in turn could encourage conversations about the relationship between priorities and outcomes in local decision making.

Procedure

1. Develop list of transportation projects for evaluation
2. On the "Standard Project Evaluation Sheet", input a value between 1 and 5 into each yellow cell indicating the importance of the corresponding Equity Criteria
3. Create a copy of the "Standard Project Evaluation Sheet" for each project being evaluated
4. Rename each "Standard Project Evaluation Sheet" to the name of the project being evaluated with that sheet
5. Input a score for the project according to the equity criteria into the corresponding blue cells
6. Review the Project Evaluation Summary at the bottom of the project evaluation sheet
7. Repeat steps 5 and 6 for each project
8. Visit the Project Comparison Page to compare and prioritize the projects based on Equity Criteria

Project Comparison Page

Project Name:	Environmental	Public Safety	Mass Transit	Bike-Ped	Sidewalk Quality	Utiity Improvement	Net Economic	Historic Investment	Average
Sewer Overflow Rehab	57	100	50	100	84	65	43	47	68
Multi-Use Path Installation	77	80	67	47	52	80	70	47	65
Bus Routing Improvement	52	60	58	67	64	65	43	33	55

Project Evaluation Summary

Project 1:	
Equity Category	**Score**
Environmental Impact	77
Public Safety Impact	12
Mass Transit Impact	71
Bike-Ped Impact	46
Sidewalk Quality	37
Utility Improoement Impact	50
Net Economic Impact	24
Historic Investment	3
Average	40

Project Evaluation Sample:

Environmental Impact			
	Score (1-5)	Weight (1-5)	Weighted Impact
WEIGHTED IMPACT SAMPLE CALCULATION	Score	Weight	Score * Weight
Air Quality	1	2	2
Freshwater Contamination	4	1	4
Stormwater Runoff	2	4	8
Contamination of Drinking Water	4	5	8
Building Density	4	3	12
Equity Score			45
EQUITY SCORE SAMPLE CALCULATION			$\frac{S_T*100}{T_{WI}*M_s}$

$$Transportation\ Equity\ Directive\ Score\ = \frac{S_T * 100}{T_{WI} * M_s}$$

$$s_T = Sum\ of\ the\ Score\ Column$$
$$T_{WI} = Sum\ of\ the\ Weighted\ Impact\ Column$$
$$M_s = Maximum\ Score\ for\ Directive$$

Environmental Criteria

Objective:

How is this project changing the existing environmental conditions?

Scoring[1]:

Criteria	**0**	**1**	**2**	**3**	**4**
Air Quality	Lowers air quality to unsafe levels	Lowers air quality somewhat	No change	Increases air quality somewhat	Increases air quality significantly
Freshwater Contamination	Reduces	Reduces	No change	Increases clean	Enhances

[1] Reference: Project Prioritization Tool

	freshwater quality significantly	freshwater quality somewhat		freshwater quality somewhat	freshwater quality significantly
Stormwater Runoff	Removes an existing component of stormwater runoff system	Worsens an existing component of stormwater runoff system	No Change	Upgrades an existing component of stormwater runoff system	Adds new stormwater runoff infrastructure
Contamination of Drinking Water	Worsens existing drinking water infrastructure and/or quality significantly	Worsens existing drinking water infrastructure and/or quality somewhat	No Change	Enhances drinking water infrastructure and/or quality somewhat	Enhances drinking water infrastructure and/or quality significantly
Building Density	Sets a precedent for unsustainable density in a new area	Contributes to unsustainable density in an existing area of unsustainable density	No Change	Contributes to sustainable density in an existing area of sustainable density	Sets a precedent for sustainable density in a new area

Justification:

Changes to the natural environment caused by construction can impact individual and public human health. Though human health is the main consideration accounted for in our scoring of environmental impacts, we didn't want to discount the health of Peoria's flora and fauna and their interconnectedness with human life. Given this reasoning, five environmental criteria were identified and given scores and weights. The five criteria are air quality, freshwater contamination, stormwater runoff, drinking water contamination, and building density.

Air quality impacts human and natural health. Though low air quality it isn't a chronic problem in Central Illinois, it is worth accounting for as new developments are approved. And with the backdrop of global climate change, being mindful of air quality, even in a small city, is a responsible act. Our scores reflect that a new project can potentially lower air quality in Peoria to unsafe levels, it can increase air quality levels (though probably only marginally since Peoria already has high air quality), or it can produce an outcome somewhere between the previous two.

Because of institutionalized water treatment and distribution systems, freshwater contamination doesn't typically impact human life directly. However, we chose to include it in our scoring out of consideration for the natural environment and the inescapable connectedness of human and natural

life. Vermillion County's Middle Fork River, which is Illinois' only designated National Scenic River, exemplifies how freshwater contamination can become an equity issue (Protect the Middle Fork). A defunct coal plant has released millions of cubic yards of toxic coal ash into the floodplain of the Middle Fork, where tens of thousands of people flock yearly for recreational activities. The area along the river is mostly forested and is home to hundreds of unique species. The story of the Middle Fork highlights the importance of accounting for freshwater quality in equity because of its eventual impact on human life.

Stormwater runoff management is especially important in cities with disparities in neighborhood age. Peoria consists of some very old neighborhoods, which might be at greater risk of flooding and other damage due to aged and blocked or ruptured stormwater systems. Standardization of stormwater management could address some neighborhood inequities since Peoria's historically disinvested neighborhoods tend to also be older.

Drinking water contamination can occur even in cities with institutionalized water treatment and distribution systems. This criterion ranked high among the environmental impact objectives, as contamination can result in disease spread and severe public health problems.

The highest-ranked criterion in the environmental impact section is building density. New developments and projects can set a precedent for unsustainable densities that dissolve CBD activity and spread settlements outward. Sprawl, a result of chronic low density developments, results in mass transit disparities, home value disparities, greater personal vehicle use, and other ramifications that are known to increase inequity.

Public Safety Criteria

Objective:

How will the project impact the safety of nearby communities? This criteria includes the impacts the projects will have on the safety at a neighborhood scale. As these differences will be different within the geographic scope of Peoria, these criteria will help in evaluating the pertaining footprint on public safety.

Scoring[2]:

[2] Reference: Project Prioritization Tool

Criteria	0	1	2	3	4
Neighborhood Impact	Negative impact on surrounding communities	Temporary impact on surrounding communities	No change	Temporary positive impact	Positive impact
Street light Installation	No additional lighting	Few installations	No change	Slightly improves the lighting	Positive change
Emergency Public Phones	No additional phone services	Few phones services	No change	Improved safety	Positive change
Impact on Pedestrian Crashes	Increase in pedestrian crashes in surrounding communities	Slight increase in crashes in surrounding communities	No change	Slight decrease (improvement) in pedestrian crashes	Significantly improved pedestrian safety
Impact during heavy storms	Lasting impact on surrounding communities	Temporary impact on surrounding communities	No change	Temporary improvement	Improvement for impacted communities

Justification:

We identified five criteria for public safety, which are awarded score points on a scale of 0-4, where 0 represents a negative impact and 4 represents the most positive impact. The criteria for public safety included neighborhood level impact, street light installations, emergency public phones, impact on pedestrian crashes and impact during heavy storms. Over fifty years ago, writer and journalist Jane Jacobs famously studied and wrote about this relationship and developed the concept of "eyes on the street". For Jacobs, one of the main characteristics of an urban center is that people feel safe and secure in public spaces, these include, pedestrian safety which can be included in several projects as well as, impact during heavy storms, which will be constricted to projects such as, combined sewer impact.

Mass Transit Criteria

Objective: How will the project improve connectivity and effectiveness of the mass transit network, especially for communities that are low-income or have high rates of zero-car households?
Scoring[3]:

[3] Reference: Project Prioritization Tool

Criteria	0	1	2	3	4
Route Change Impact	route moved from high-need area	route reduced in high-need area	no change	route improved in high-need area	route extended/moved to high-need area
System Completion	removes entire route	reduces route	no change	adds to existing route	adds new route
Transit Shelters	removes shelter	reduces coverage of shelter	no change	improves existing shelter	adds new shelter
Frequency	Low frequency (every hour)	reduced frequency (every 30 mins)	no change	Frequent service (every 20 minutes)	rapid service (every 15 mins)
Opportunity Access	removes access	reduces access	no change	improves access	creates new access opportunities
Multimodal Access	street no longer accommodates buses	street layout negatively impacts bus service	no change	street layout improves bus access	street has dedicated bus lanes

Justification: We identified six criteria for mass transit which are awarded score points on a scale of 0-4, where 0 represents a negative impact and 4 represents the most positive impact. Key definitions for this section are “high need areas” and “opportunity access.” High need areas are identified as neighborhoods that have higher numbers of households living at or below poverty level, and low levels of vehicle access. Opportunity access refers to linkages between a transit route and centers of economic opportunity or essential health services, such as employment centers, schools, and hospitals or clinics (see Points of Interest map in Appendix).

Bike-Ped Criteria

Objective:

How is this project changing the accessibility of existing ped-bike infrastructure?

Scoring[4]:

Criteria	0	1	2	3	4	5
Bike Lanes	Removes Existing	Damages existing bike lanes	No Change	Improve Bike Lane Condition	Adds Combined Bike Lanes	Adds Separated Bike Lanes
Sidewalk	Removes Existing	Damages Existing Sidewalk	No Change	Improves Sidewalk Condition	Widens Sidewalk	Complete Street Criteria
Crosswalk	Removes Existing	Damages existing Crosswalk	No Change	Repaints Existing	Adds High Contrast	Added Curb Bump Out
Traffic Signaling	Removes Existing	Damages Existing Signal	No Change	Adds Visual Cue	Adds Push Button	Added Audible Signal
Curb Ramps	Removes Existing	Damages Existing Curb Ramp	No Change	Adds Detectable Warnings	Adds Curb Ramps	Adds ADA Compliant Curb Ramps

Justification

This directive focuses on the project's impact on the accessibility of existing ped-bike infrastructure. A score of 2 was assigned for project's that had no effect on the access to pedestrian and bicycle infrastructure. Scores of 0 and 1 indicated that the project had a negative effect on the ped-bike accessibility, while a value of 3 or 4 shows improvement. The 5 criteria for this directive are bike lanes, sidewalks, crosswalks and traffic signals.

This section of the project evaluation sheet aims to capture the impact of the project on the physical pedestrian and bike infrastructure. The basis of the evaluation criteria are the 2010 ADA Accessibility Guidelines and Complete Streets approaches. The addition of bike lanes can encourage bike use and greatly increase the safety of existing bike riders. Sidewalks encourage healthy activities such as walking and provide additional access to those without car access. Crosswalks and traffic signaling greatly

[4] Reference: Project Prioritization Tool

improve the safety of the elderly, children, and people with disabilities. Curb ramps are necessary for the access of the pedestrian system to wheelchair users.

Bike-Ped Connectivity Criteria

Objective: How will the project impact pedestrian and bicycle access to opportunities and other modes of transportation?
Scoring[5]:

Criteria	0	1	2	3	4
Connection to Transit Stop	Project will place route ¼ or further from major transit stop	Project will place route within ¼ mile of major transit stop	no change	Route improved to connect with major transit stop	Route improved to connect with multiple transit stops
System Completion	Project removes existing ped-bike route	Project reduces or diminishes existing ped-bike route	no change	Project improves or lengthens existing ped-bike route	Project adds new ped-bike route
Opportunity Access	Removes access	Reduces access	no change	Improves access	Creates new access opportunity
Recreation Access	Removes access	Reduces access	no change	Improves access	Creates new access opportunity
Route Location Impact	Route moved from high-need area	Route reduced in high-need area	no change	Route improved in high-need area	Route extended/moved to high-need area

Justification: In addition to bike-ped infrastructure, we included an objective for bike-ped connectivity. Although bicycle and pedestrian transportation infrastructure can confer health benefits wherever implemented because it provides resources for exercise and recreation, it is also a valuable part of the transportation system because it can provide crucial links to other modes such as mass transit, generally referred to as first mile-last mile connectivity. This is especially relevant for neighborhoods with low levels of vehicle ownership. We identified five criteria for bike-ped connectivity which are awarded score points on a scale of 0-4, where 0 represents a negative impact and 4

[5] Reference: Project Prioritization Tool

represents the most positive impact. Key definitions for this section are “high need areas” and “opportunity access.” High need areas are identified as neighborhoods that have higher numbers of households living at or below poverty level and low levels of vehicle access. Opportunity access refers to linkages between a transit route and centers of economic opportunity or essential health services, such as employment centers, schools, and hospitals or clinics (see Points of Interest map in Appendix).

Utility Improvement Impact

Objective:
How does this project change the equitable access to utilities?
Scoring[6]:

Criteria	0	1	2	3	4
Wastewater Sewer Access	Sewer Service Removed	Sewer Service reduced	No Change	Minimal Sewer Access Added	Significant Sewer Access Added
Sewer Overflow Remediation	Combined Sewer Installation	Add Stormwater to Wastewater	No Change	Sewer Lining	Dedicated Sewer Replacement
Green Drainage Infrastructure	Removed Infrastructure	Damaged Infrastructure	No Change	Added Green Drainage Features	Complete Green System
Electrical Infrastructure Visibility	Add visible power station	Add transformers in PROW	No Change	Moved transformers out of sight	Bury Power Lines

Justification:
This directive focuses on the project’s impact on the equitable access to utilities such as water, sewer, and electricity. A score of 2 was assigned for project’s that had no effect on the access to utilities. Scores of 0 and 1 indicated that the project had a negative effect on the utility access, while a value of 3 or 4 shows improvement. The 4 criteria for this directive are wastewater sewer access, sewer overflow remediation, green drainage infrastructure, and electrical infrastructure visibility.

Wastewater sewer access demonstrates the agency's effort to provide access to the central sewer system. Homes not connected to this system rely on dated septic systems, requiring frequent maintenance and often polluting the surrounding groundwater. Higher scores show that sewer access was added, and lower score indicates a reduction of sewer service.

[6] Reference: Project Prioritization Tool

Combined sewer overflow is the result of older sewer systems that combine sewage and rainwater into a single pipe and is a very common challenge facing municipalities today. Communities relying on dated combined sewer systems face higher sewer bills, pollution to nearby waterways, and raw sewage backing into their homes. The scores of 0 indicates that the agency is adding a new combined sewer system and 1 shows that more rainwater is being introduced to the sewage system. Scores of 3 and 4 indicate remediation to the problem through sewer lining or replacement with a separated system.

Green drainage infrastructure is the installation of rain gardens, retention ponds, and other water collection systems that reduce runoff into natural lakes and streams. These systems provide aesthetic value to the surrounding areas and greatly reduce pollution to nearby waterways. Scores of 0 and 1 indicate a reduction of green drainage systems while scores of 3 and 4 indicate additional systems being added.

The visibility of electrical infrastructure has a significant impact on the aesthetics, home value, and wellbeing of nearby communities. High voltage power stations often emit noise and tend to reduce home values. Adding above ground transformers in the public right of way create roadway visibility issues and are often in or near people's yards. Scores of 3 or 4 are given for moving transformers out of sight and moving power lines below ground.

Net Economic Impact

Objective:

How does the project impact economic development from an equity perspective?

Scoring[7]:

Criteria	0	1	2	3	4
Community-ideated Project	Didn't originate from community needs or ideas	Little effort was made to solicit community input	Community input was solicited but nothing was done to ensure representativeness	A representative group of residents ideated the project or expressed a need for it, but the group wasn't equitably representative	An equitably-representative group of residents ideated the project or expressed a need for it

[7] Reference: Project Prioritization Tool

Revenue Generation	Decreases Peoria's revenue in the long run	Generates no revenue	Generates average revenue	Increases revenue somewhat	Increases revenue significantly
Financial Feasibility	Not financially feasible	Financially feasible after cutting other budget priorities	Financially feasible after cutting "extra" budget items	Fits snugly into the budget	Financially feasible and leaves some extra room in budget
Employment Generation	Moves workers away from Peoria	Doesn't generate any new jobs	Sustains current employment levels	Generates some new jobs	Generates many new jobs

Justification:

Economic impact is important, but it's only equitable if historically disinvested neighborhoods get a proportional share of the revenue. Our criteria for economic impact include community-ideation, revenue generation, financial feasibility, and employment generation. All of these criteria reflect ways that new projects could deflect Peoria's funds towards neighborhoods that have needed investment for decades.

Historic Investment Impact

Objective: How will the project address historic disinvestment within the neighborhoods?
Scoring[8]:

Criteria	0	1	2	3	4
Downtown Peoria	Project produces negative impact on neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has potentially positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.
North Valley	Project produces negative impact on disinvested neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has potentially positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.
South Peoria	Project produces negative impact on neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.
East Bluff	Project produces negative impact on neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.
West Bluff	Project produces a negative impact on neighborhood.	Project produces somewhat negative impact on disinvested neighborhoods.	No Change	Project is not in disinvested neighborhood but has positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.
Central Peoria	Project produces negative impact on neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.
Northwest Peoria	Project produces negative impact on neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.

[8] Reference: Project Prioritization Tool

North Peoria	Project produces negative impact on neighborhood.	Project produces somewhat negative impact on neighborhoods.	No Change	Project is not in disinvested neighborhood but has positive outcomes for the residents.	Project investment is in a neighborhood that hasn't had investment over X years.

Justification: We identified each neighborhood in Peoria based on the Neighborhood Map developed by the Tri-County Regional Planning Commission (see Appendix) and assigned points based on a scale of 0 to 4; with 0 representing a negative impact to the neighborhood and 4 representing the positive impact of project investment in a neighborhood that has not had significant investment in "***x***" amount of years.

The challenges of disinvestment in the older parts of Peoria are well-documented. According to a 2015 study done by the National Resource Network, the residents of South Peoria face considerable challenges in terms of social and economic mobility such as poverty, unemployment, crime, and lack of access to fresh food. Since 1970, South Peoria has lost more than 40% of its residents--this decline has continued. Between 2000 to 2010, all Census tracts in the Southside experienced population declines between 5 to 17 percent. As such, it is recommended that South Peoria be considered a high priority area.

Limitations:

Although this tool is a step in the right direction, there is much work that remains to be done before it will be able to clearly demonstrate its effectiveness in the context of Peoria. Specific data inputs should be identified for each scoring criteria, using sources such as regional GIS data, CItyLink transit maps and route schedules, and data from the U.S. Census and other federal agencies. Another limitation of our tool is that it has not included geography within its evaluating parameters: adding the variables of geography, say for projecting neighborhood level improvements, can add a difference in result.

The scoring model process attempts to provide structure for decision-making processes while synthesizing specified criteria. However, there are limitations to the scorecard method itself: while a numeric scale from 1 to 4 simplifies the process and is easy to apply, it lacks accuracy. Although we know 4 is the highest end of the weighted scale, we do not know quantitatively how much better 4 is than 3. Furthermore, we cannot assume that the differences between 4 and 3, 3 and 2, 2 and 1 are the same. Other limitations include the assumption that the factors being scored exist independently of each other, yet this has not been tested. Before presenting this tool to Peoria officials, data-based justification for scoring criteria, such as the maps and charts listed in the Regional Examples section, should be completed and the tool should be fully tested on proposed transportation projects with scores and weights applied.

Evaluation Summary

After the three groups completed and presented their models to the class every student provided a written summary of feedback, identifying the strengths and weaknesses of each model and making suggestions for how they might be combined into a final tool. We were unable to identify one clearly preferred model, and we recognize this may be in part because they were not at a sufficient level of completion to have a full sense of how they would be applied in a prioritization process. However, some key takeaways emerged from this discussion, which are summarized below.

Takeaway 1: Historic disinvestment and public participation are key to a successful tool
Many students were drawn to the way Group 1's equity tool included a second weighting scheme to score projects based on whether they were taking place in a Census tract or neighborhood identified as low-income or with a high minority population. This method allows the prioritization tool to factor in a variety of objectives while still recognizing where the greatest equity need lies.

Takeaway 2: finding the balance between user simplicity and comprehensive analysis
All three tools were critiqued for their balance of usability and comprehensiveness. Students generally agreed that Tool 1 was oversimplified, while Tool 3 may be overcomplicated to the point where it is difficult to use. Tool 2 was recognized for having the greatest potential ease-of-use, but there were some criticisms that the criteria should be more clearly defined.

Takeaway 3: Adjustable weights are useful but scoring should be tied to concrete data sources
Student evaluations of all three tools identified the ability for the user to adjust weights as a strong feature, but also recommended that the inputs for scores should be tied to clearly identified data sources to prevent user bias from affecting the outcome.

Recommendations

- Combine three tools into one using the strengths of each.
- Include a separate weight for low-income/priority geographic area.
- Evaluate benefits and burdens through balancing needs of the matrices.
- Develop guiding principles for regional and local alignment of projects.
- Identify and develop a framework for performance management that can be applied to different types of projects. For example, a combined sewer overflow project will perform much differently from pedestrian infrastructure improvements.
- Focused strategy towards equity-centered grants for infrastructure projects. This will assist in filling infrastructural gaps in neighborhoods with need, without the burden of competing against projects with better cost-benefit results.
- Code final project into Excel where it can later be adapted to other platforms, such as an app.
- Continue working on tool with a student doing a capstone project

Conclusion

Ultimately what these tools have accomplished so far is to look at similar questions and attempt to answer them in different ways, using existing policies and tools as guides. The flexibility of these tools in their current state means they can be utilized as a guidance document and eventually adapted to different formats as required for implementation. The scores and composite indicators can aid in understanding greatest needs in each area, a feature that can benefit planning at the city level as well as forecasting demand at a regional scale. As a guideline for next steps, we recommend that the City of Peoria reviews these tools and identifies either the tool that is the best fit for them, or the components from each tool that they would like to see incorporated into the final product. From there, either working with their own staff or with a student who will continue this work as a capstone, the city could test this tool on a sample project list that they create. The results of this pilot project would then be shared with city departments and hopefully community members, after which the tool could be adjusted based on feedback received and then deployed fully.

This project has been an interesting addition to our elective course. It gave us a chance to explore reports and documents, look into case studies that support equitable projects, and work towards developing our own tools that evaluate project prioritization in Peoria. Throughout our work we have challenged ourselves to utilize a blend of quantitative and qualitative analysis and to incorporate the directives and input shared with us by the City of Peoria, which was immensely helpful. Participating in this work has provided us with valuable context for the challenges of implementing transportation equity policies in an effective and comprehensive way. We hope this document has provided an overview of all the different processes and brainstorming work done collaboratively for this project, as well as some insights into the potential strategies that could be employed to look at transportation projects through an equity lens.

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Appendix[9]

Appendix 1: Prioritization Tool I

Goals and Objectives

	Objectives/Key Domain	Scoring Criteria	Inputs
1	**Environment**	Environmental Justice Combined Sewer Overflow	- CSO Geographical Overlay/Shapefile - Census Data on air and water quality - Project Planning Process
2	**Multi-Modal Transportation**	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	- CityLink Route geography/shapefile - Citylink Ridership heatmap/data - Citylink Service Audits - Bike Route GIS/Shapefile - Bike Master Plan Route Recommendations - City stops/Connection points - ADA accessibility Data - City of Peoria Sidewalk Survey Data - Peoria Cares Sidewalk Report Data - Project Planning Process
3	**Economic Development**	Justifiable ROI Project Readiness Criteria	- Estimate EAV Impact on Local Residential Development - Lifetime Maintenance Cost of Infrastructure - Direct Wealth Generation of Project; Ratio of Materials vs. Labor Cost Estimates

[9] For the full working version of these prioritization tools, see the documents attached to this report.

			- Project Planning Process
4	**Historic Disinvestment**	Utility Infrastructure Upgrades	- GIS data (Year built of project-adjacent) property
			- Bike Master Plan Route Recommendations
			- City stops/Connection points
		Investment Location	- GIS Parcel Age Data
			- Historic Annual Capital Expenditures from Community Development and Public Works Department
5	**Public Safety and Health**	Crime Prevention	- Police Department's Crime Heatmap
			- Fire/EMS response location data
			- Existing full-service grocery store locations
		Response to Public Health Emergencies	- Public Health Emergency Reports
		Reduction of Bike and Pedestrian Fatalities	- Crash Data and Incident sites from Vision Zero documents

Evaluation Criteria by Project

	Objectives/Key Domain	**Scoring Criteria**	**Project type**			
			Roadway	**Bike/Ped**	**Transit**	**Transit Infrastructure**
1	**Environment**	Environmental Justice	10	5	5	10
		Combined Sewer Overflow	10	5	5	10
2	**Multi-Modal Transportation**	Complete Streets	15	20	5	10
		Alignment with Goals of Transit Operators	10	10	20	15
		Policy Support Criteria	5	5	10	5
3		Justifiable ROI	5	5	5	5

	Economic Development	Project Readiness Criteria	5	10	10	5
4	**Historic Disinvestment**	Utility Infrastructure Upgrades	5	5	5	10
		Investment Location	10	10	15	10
5	**Public Safety and Health**	Crime Prevention	10	5	5	10
		Response to Public Health Emergencies	5	5	5	5
		Reduction of Bike and Pedestrian Fatalities	10	15	10	5
Total			**100**	**100**	**100**	**100**

Roadway Project Type

Key Domain	**Criteria**	**Weight**	**Scoring Guidelines**
Environment	Environmental Justice Combined Sewer Overflow	0-20	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	0-30	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessability. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
	Justifiable ROI	0-10	

Economic Development	Project Readiness Criteria		1) If the project incorporates public input in the planning process. 2) If the project ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-15	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-25	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

Bikeped Project Type

Key Domain	Criteria	Weight	Scoring Guidelines
Environment	Environmental Justice Combined Sewer Overflow	0-10	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
	Complete Streets	0-35	

Multi-Modal Transportation	Alignment with Goals of Transit Operators Policy Support Criteria		1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessability. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-15	1) If the project incorporates public input in the planning process. 2) If the project ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-15	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-25	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

Transit Project Type

Key Domain	Criteria	Weight	Scoring Guidelines
Environment	Environmental Justice	0-10	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is

	Combined Sewer Overflow		in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	0-35	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessability. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-15	1) If the project incorporates public input in the planning process. 2) If the project ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-20	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.
Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-20	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.

Total		100	

Transit Infra Project type

Key Domain	Criteria	Weight	Scoring Guidelines
Environment	Environmental Justice Combined Sewer Overflow	0-20	1) If the project is in CSO geography it is awarded a greater weight. 2) If the project is in census tracts with high recorded levels of air pollution and will have a mitigating effect it is awarded a greater weight. 3) If the project is in census tracts with poor water quality and will have a mitigating effect it is awarded a greater weight. 4) If the project incorporates public input in the planning process.
Multi-Modal Transportation	Complete Streets Alignment with Goals of Transit Operators Policy Support Criteria	0-30	1) If the project incorporates improvements to mass transit systems. 2) If the project adds new bike or pedestrian infrastructure. 3) If the project improves existing bike or pedestrian infrastructure. 4) If the project includes ADA accessability. 5) If the project incorporates public input in the planning process. If the project is supported by existing policies.
Economic Development	Justifiable ROI Project Readiness Criteria	0-10	1) If the project incorporates public input in the planning process. 2) If the project ready in terms of final design and implementation. 3) If the project adds new bike or pedestrian infrastructure. 4) If the project improves existing bike or pedestrian infrastructure.
Historic Disinvestment	Utility Infrastructure Upgrades Investment Location	0-20	1) If the project incorporates opportunity to improve water / gas utility infrastructure it is awarded a greater weight. 2) If the project improves access to the warehouse district. 3) If the project is within the warehouse district. 4) If the project is in census tracts with above average poverty rate. 5) If the project is within a majority minority census tract. 6) If the project incorporates public input in the planning process.

Public Safety and Health	Crime Prevention Response to Public Health Emergencies Elimination of Bike and Pedestrian Fatalities	0-20	1) If the project is in a high crime area it is awarded a greater weight. 2) If the project is in a high traffic collision area it is awarded a greater weight. 3) If the project increases public health resiliency it is awarded a greater weight.
Total		100	

Data Entry

	Data Required	Roadway Projects			Ped/Bike Projects			Ped/Bike Projects			Ped/Bike Projects		
		Project 1	Project 2	Project 3	Project 1	Project 2	Project 3	Project 1	Project 2	Project 3	Project 1	Project 2	Project 3
1	Project is in CSO geography.												
2	Project is in census tracts with high recorded levels of air pollution and will have a mitigating effect.												
3	Project is in census tracts with poor water quality and will have a mitigating effect.												
4	Project incorporates public input in the planning process.												
5	Project incorporates improvements to mass transit systems.												
6	Project adds new bike or pedestrian infrastructure.												
7	Project improves existing bike or pedestrian infrastructure.												
8	Project includes ADA accessibility.												
9	Project is supported by existing policies.												
10	Project ready in terms of final design and implementation.												

11	*Project incorporates opportunity to improve water / gas utility infrastructure*												
12	*Project improves access to the warehouse district.*												
13	*Project is within the warehouse district.*												
14	*Project is in census tracts with above average poverty rate.*												
15	*Project is within a majority minority census tract.*												
16	*Project is in a high crime area.*												
17	*Project is in a high traffic collision area*												
18	*Project increases public health resiliency*												

Project Ranking

Project Type	Rank	Project Name
Roadway Projects	1	
	2	
	3	
	4	
	5	
Bike/Ped Projects	1	
	2	

	3	
	4	
	5	
Transit Projects	1	
	2	
	3	
	4	
	5	
Transit Infrastructure Projects	1	
	2	
	3	
	4	
	5	

Project Lookup

Project Type	Project Name	Details
Roadway Projects		
Bike/Ped Projects		

Transit Projects		
Transit Infrastructure Projects		

Appendix 2: Prioritization Tool II

Please insert the name of your project here

Instructions: ***If the project satisfies a parameter, it is awarded 1 point. If it does not, it is awarded 0 Points.***

	Points
Located within CSO geography	
Incorporates green infrastructure (open drainage, swales)	
Incorporates grey infrastructure removal	
Contains infrastructure designed for future expansion	
Fully separates waste from storm water	
	0

Located within a high crime area	
Located near a traffic black spot	
Incorporates public safety infrastructure (lights, police call phones)	
Increases eyes on the street or otherwise increases pedestrian traffic	
Incorporates principles delineated by local community safety assessment	
	0

Creates public transit shelter and supportive infrastructure	
Adds an additional bus stop or expands transit coverage	
Improves regional transit connectivity (suburbs to core)	
Incorporates other modes of transportation	
Reduces travel time	
Reduces travel cost	
Intersects two or more transit lines/creates a transfer point	0

Resurfaces or improves existing bicycle infrastructure	
Creates new bicycle infrastructure where none currently exists	
Creates dedicated bicycle infrastructure	
Creates a connection to public transportation	
Located along points of interest (parks, job centers, shopping areas, schools)	0

Resurfaces or improves existing pedestrian infrastructure	
Creates new pedestrian infrastructure where none currently exists and is needed	
Creates a connection to public transportation	
Incorporates safe route to school principles	

Incorporates infrastructure improving ADA accessibility	0

Expands/strengthens utility (water, gas, electric, sewer) infrastructure	
Incorporates green infrastructure into the design	
Solves a utility issue for at least 10 households	
Removes a known interruption point (leak or powerline defect)	
Supports CSO improvement objectives	0

Project is a public-private partnership	
Improves job accessibility	

Increases nominal GDP	
Creates new tax revenue/supports new businesses	
Creates jobs for the (hyper)local job market	0

Investment located within a historically disinvested area	
Incorporates preservation objectives	
Rehabilitates existing structures	
Redevelops a vacant/condemned lot	
Serves as an anchor preventing business relocation	0

	0

	0

Appendix 3: Prioritization Tool III

Standard Project Evaluation Sheet

Project A:			
Environmental Impact			
	Score (0-4)	Weight (1-5)	Weighted Impact
Air quality	1	1	1
Freshwater contamination	4	2	8
Stormwater runoff	2	3	6
Contamination of drinking water	4	4	8
Building density	4	5	20
Total:			72
Public Safety Impact			
	Score (0-4)	Weight (1-5)	Weighted Impact
Neighborhood Impact	4	1	4
Street light Installation	4	1	4
Emergency Public Phones	4	1	4
Impact on Pedestrian Crashes	4	1	4
Impact during heavy storms	4	1	4
Total:			100
Mass Transit Impact			
	Score (0-4)	Weight (1-5)	Weighted Impact
Route Change Impact on High-Need Areas	1	1	1
System Completion	1	1	1
Transit Shelters	1	1	1

Frequency	5	1	5
Access to Essential Services	2	1	2
Complete Streets (or relevant policy)	2	1	2
Total:			50
Bike-Ped Infrastructure Impact			
	Score (0-5)	Weight (1-5)	Weighted Impact
Bike Lane Impact	5	1	5
Sidewalk	5	1	5
Crosswalk	5	1	5
Traffic Signaling	5	1	5
Curb Ramps	5	1	5
Criteria	5	1	5
Total:			100
Bike-Ped Connectivity			
	Score (0-5)	Weight (1-5)	Weighted Impact
Connection to Transit Stop	5	1	5
System Completion	5	1	5
Opportunity Access	5	1	5
Recreation Access	5	1	5
Route Location Impact	1	1	1
Total:			84
Utility Improvement Impact			
	Score (1-5)	Weight (1-5)	Weighted Impact
Wastewater Sewer Access	5	1	5
Sewer Overflow Remediation	1	1	1
Green Drainage Infrastructure	5	1	5
Electrical Infrastructure Visibility	2	1	2
Total:			65
Net Economic Benefit			
	Score (1-5)	Weight (1-5)	Weighted Impact
Community-ideated project	3	1	3
Revenue generation	5	1	5
Financial feasability	1	1	1
Employment generation	2	1	2
Benefits to local business	1	1	1
Total:			48
Historic Investment			

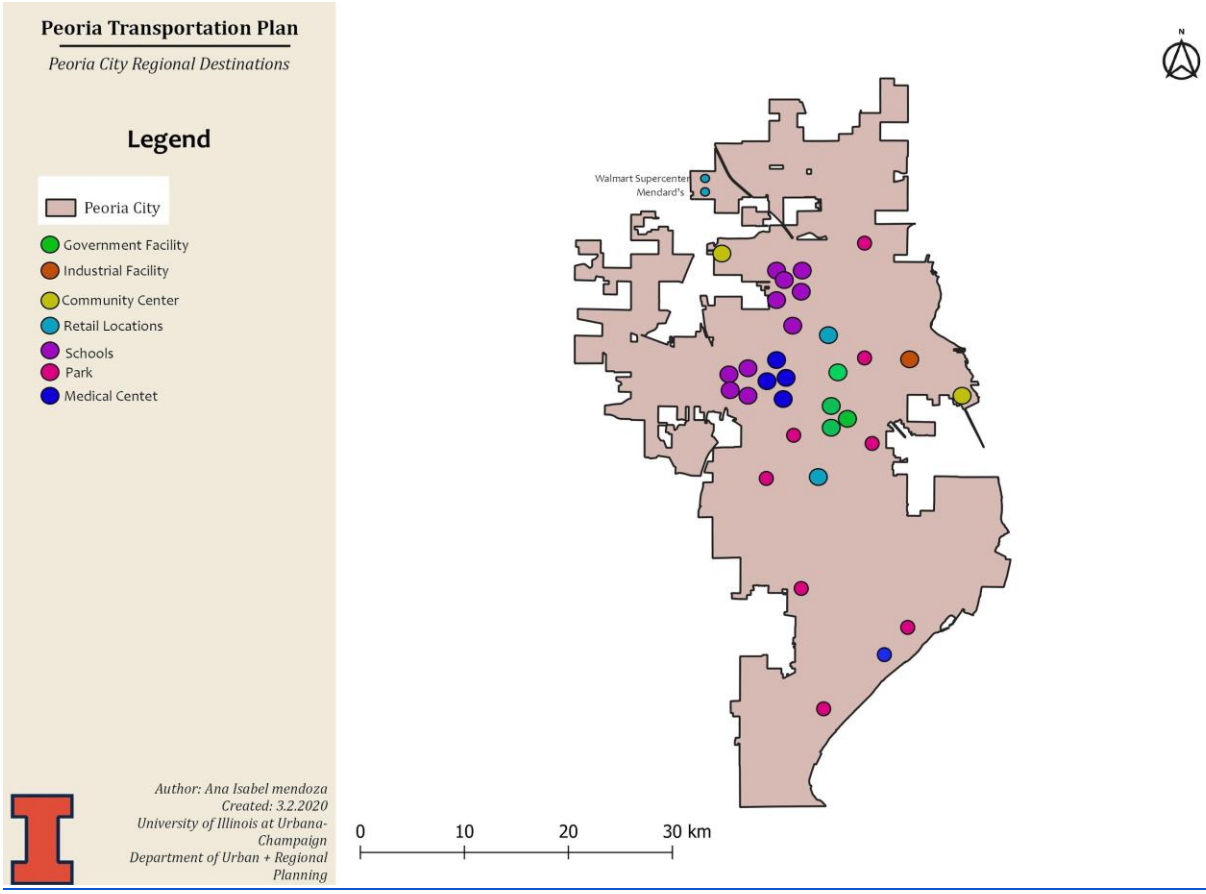
	Score (1-5)	Weight (1-5)	Weighted Impact
Downtown Peoria	5	1	5
North Valley	2	1	2
South Peoria	2	1	2
East Bluff	2	1	2
West Bluff	2	1	2
Central Peoria	1	1	1
Northwest Peoria	1	1	1
North Peoria	1	1	1
Total:			47

Calculations Sheet

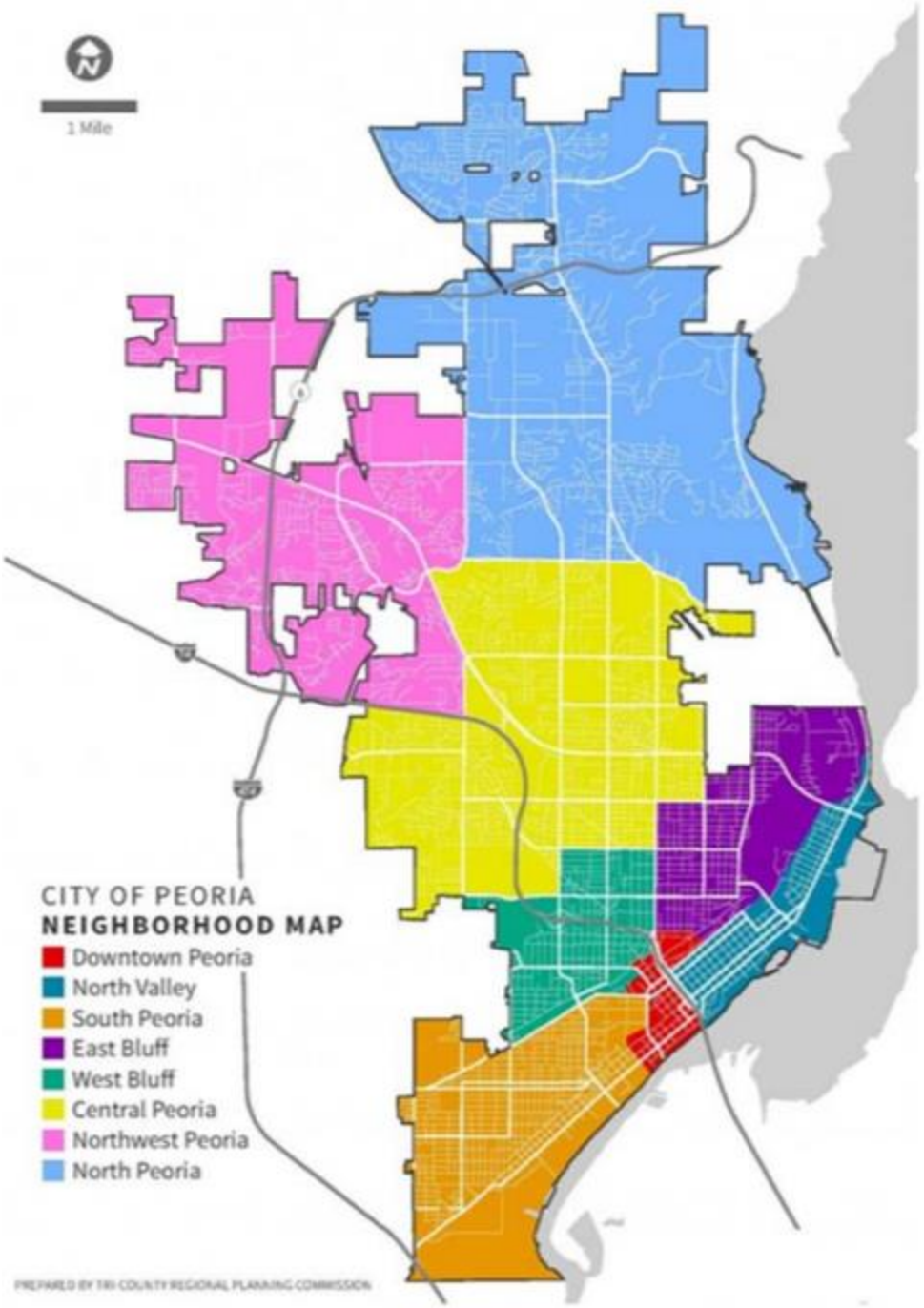
Environmental Impact			
	Score (1-5)	Weight (1-5)	Weighted Impact
WEIGHTED IMPACT SAMPLE CALCULATION	Score	Weight	Score * Weight
Air Quality	1	2	2
Freshwater Contamination	4	1	4
Stormwater Runoff	2	4	8
Contamination of Drinking Water	4	5	8
Building Density	4	3	12
Equity Score			45
EQUITY SCORE SAMPLE CALCULATION			

Project 1:	
Equity Category	**Score**
Environmental Impact	7
Public Safety Impact	83
Mass Transit Impact	93
Bike-Ped Impact	61
Sidewalk Quality	57
Utility Improement Impact	15
Net Economic Impact	7
Historic Investment	0
Average	40

Appendix 4: Peoria City Regional Destinations



Appendix 5: Peoria Neighborhood Map



Source; Tri-County Regional Planning Commission.