

SAINT PAUL PEDESTRIAN PLAN

Prioritization Options Memo

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Census Tract Prioritization Methodology

Saint Paul's 82 census tracts were scored on seven measures: equity, health, safety, connectivity, transit, destinations, and density. These measures were weighted and combined to produce various prioritization scenarios. The components that make up each of these measures are detailed in the accompanying metadata.

For each measure, the overall score is shown on a map, followed by the components that make up each measure (if any). If applicable, the raw data used to produce the component map is shown beneath the component map for reference.

Generally, census tracts were scored 0, 1 or 2 on each component based on standard deviation. Tracts more than one standard deviation above the average were scored 2, tracts within one standard deviation of the average were scored 1, and tracts more than one standard deviation below the average were scored 0. These component scores were averaged to produce the overall measure score. For example, scores for diabetes, obesity, asthma, and heart disease were averaged to produce the overall health score. A higher score means the census tract is a higher priority.

Any variations from this methodology are noted on the maps.

Discussion: Potential for double counting

In some cases, the prioritization methodology may appear to “double count” criteria. For example, a census tract may be home to a college as well as multiple transit stops and routes that exist along a particular street because of transit demand generated by the college. The census tract will receive points for the college as well as the transit stops and routes. We do not consider this to be “double counting”, as we are interested in colleges and transit as separate factors. These factors are not mutually exclusive. There may be colleges not well served by transit, and there are areas with multiple transit routes but not colleges. Those areas with both a college and high levels of transit service are important for two distinct reasons. **The prioritization analysis is designed to highlight areas where walking is important for multiple reasons—areas where multiple factors compound.**

None of the criteria are completely independent—poverty connects to health, transit connects to destinations—but none of the criteria are completely identical. Areas where multiple criteria overlap are areas that should be higher priorities.

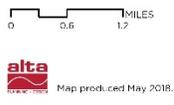
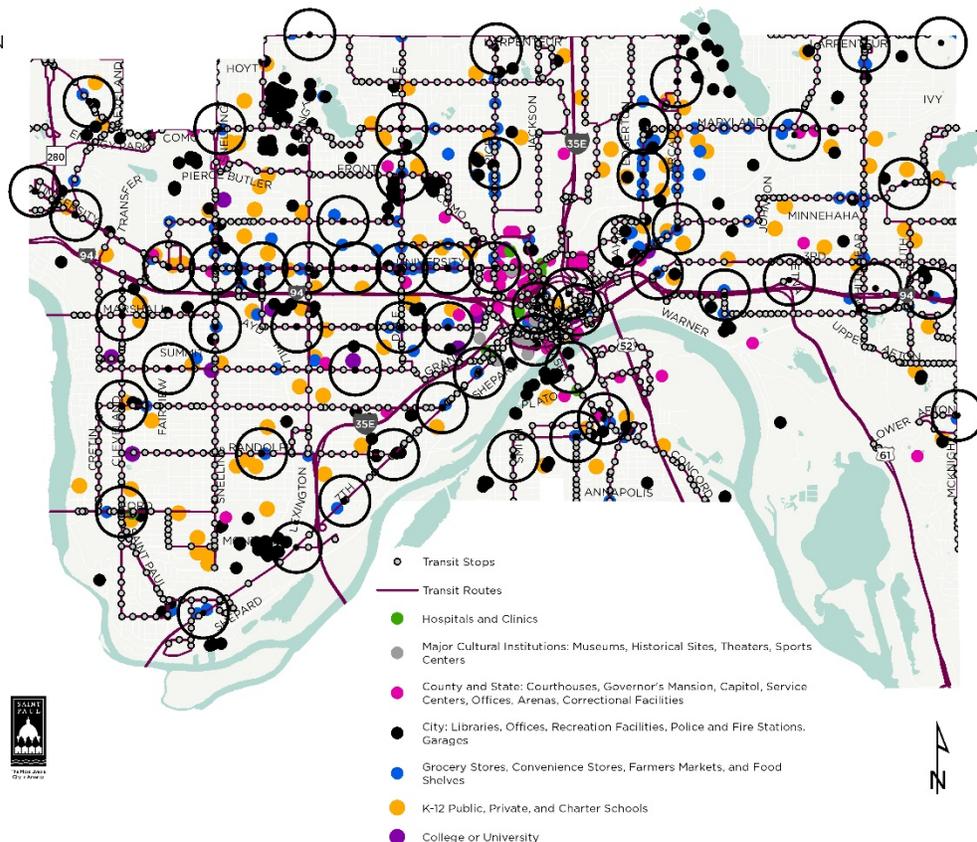
The map below shows destinations, neighborhood nodes, and transit stops and routes, for use in understanding the relationship between these factors.

There may be overlap between grocery stores and neighborhood nodes, as grocery stores were a factor in the selection of neighborhood nodes. The factors are not identical; there are grocery stores outside of neighborhood nodes, and neighborhood nodes without grocery stores. We decided to continue to include grocery stores, as they help us to understand access to food and were identified in our community outreach as particularly important for people with low-incomes. Neighborhood nodes with grocery stores are particularly important areas for walking and should be elevated above areas with a grocery store alone or neighborhood node alone.

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- Potential for Double Counting
- Neighborhood Nodes



Measure and Component Maps

Equity

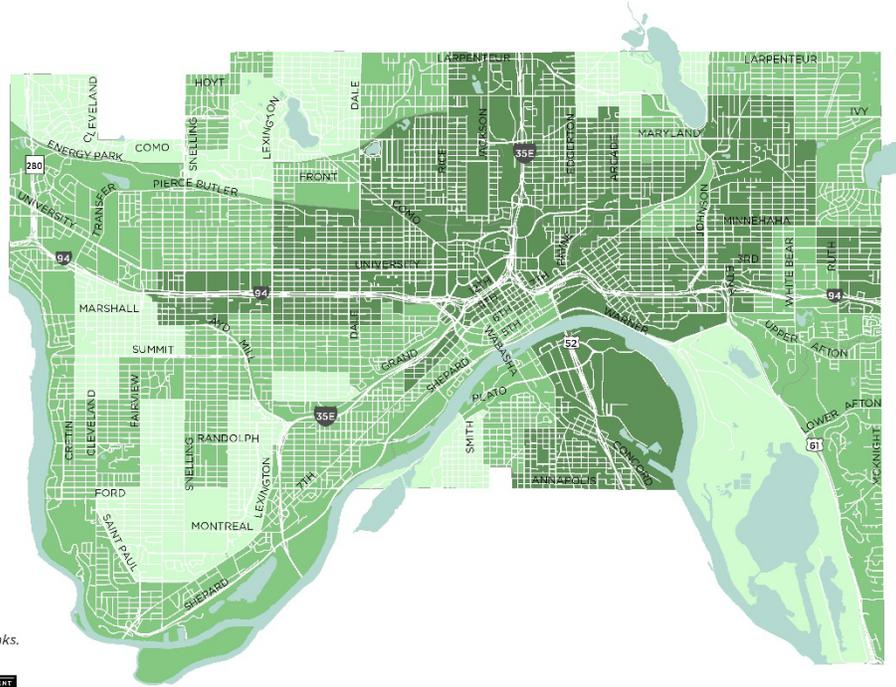
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- Equity Score
- Lower than average
 - Average
 - Higher than average

The Equity Score combines areas of concentrated poverty where a majority of the residents identify as people of color, households with no access to a motor vehicle, and people who report living with a disability.



Symbolized using natural breaks.



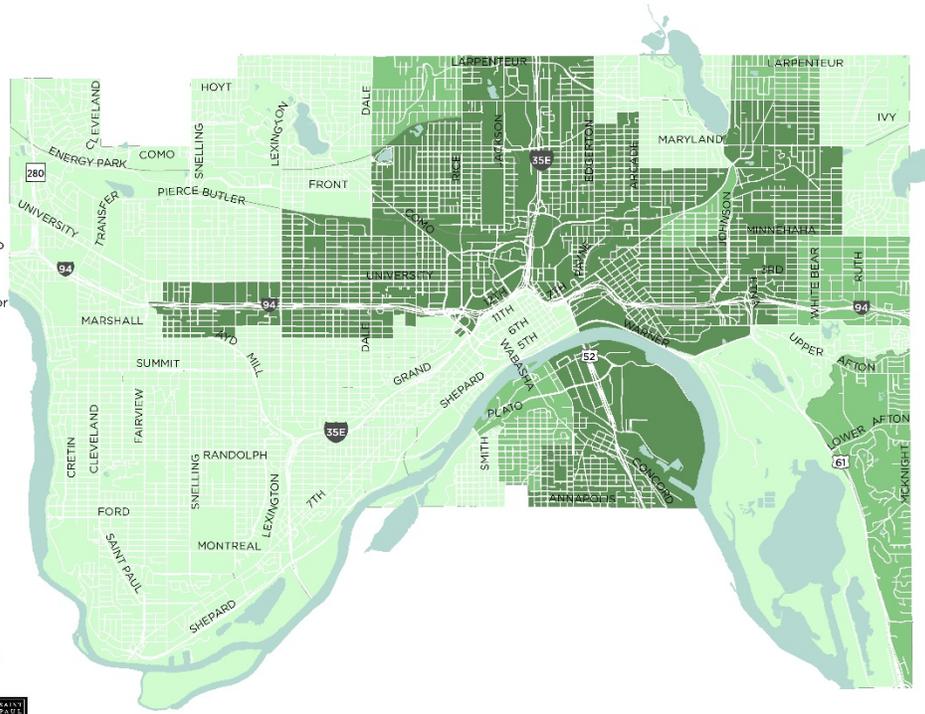
Map produced May 2018.



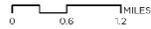
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Areas of Concentrated
Poverty with >50%
People of Color
(ACP50)

-  ACP50 tract 0
years (2010-
2016)
-  ACP50 tract 1 to
5 years (2010-
2016)
-  ACP50 tract 6 or
7 years (2010-
2016)



Breaks manually determined.



Map produced May 2018.



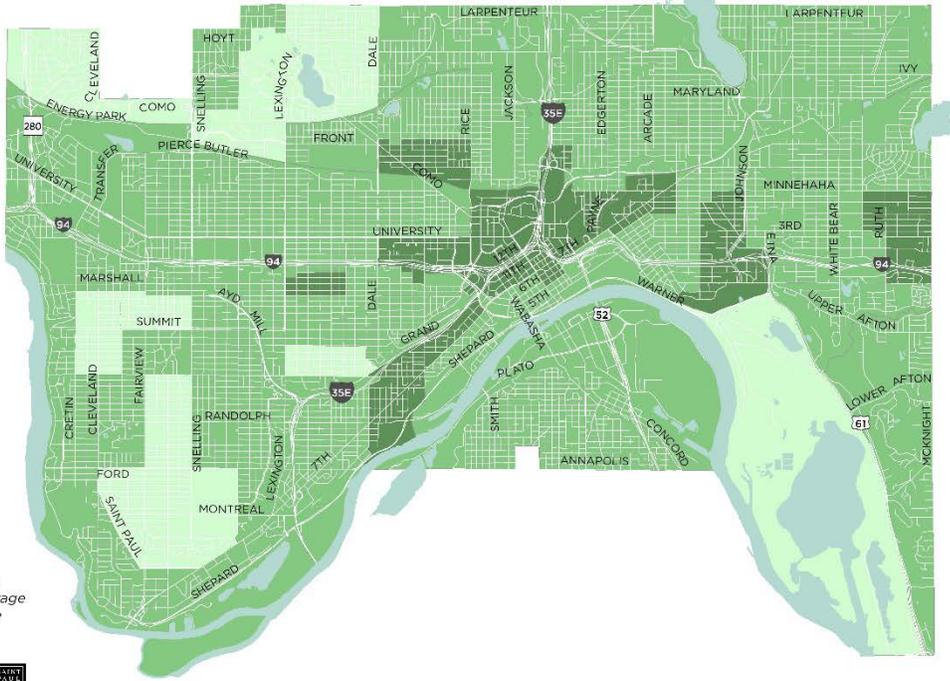
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Percent Living with a Disability

- Significantly lower than average (<7.2%)
- Average
- Significantly higher than average (>17.6%)



Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average

0 0.6 1.2 MILES

alte
 Map produced May 2018.



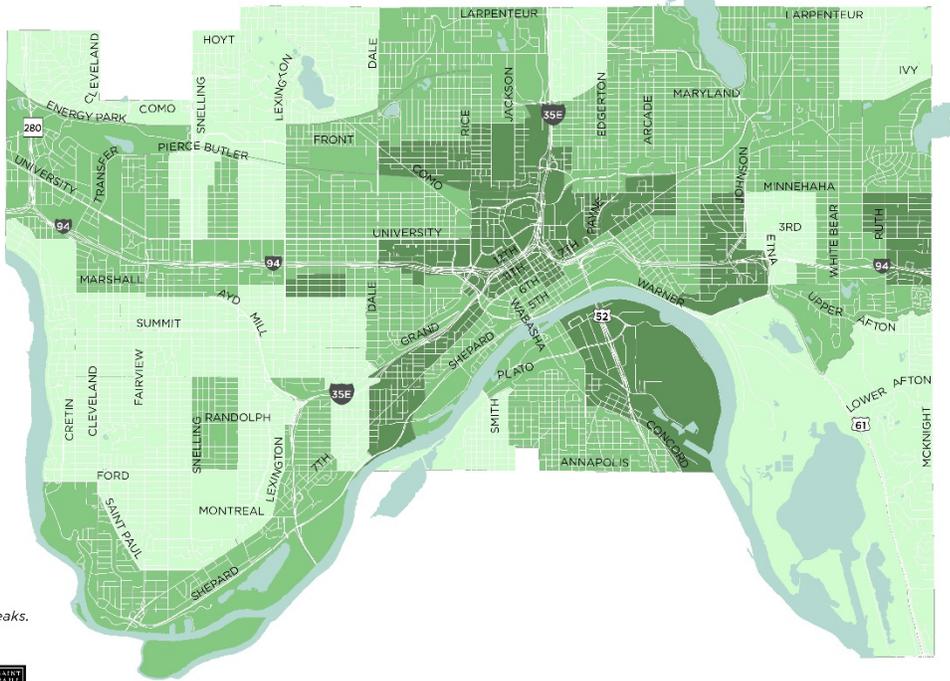
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Percent Living with a Disability:
 Raw

- <9.8%
- 9.8%-15.9%
- >15.9%



Symbolized using natural breaks.

0 0.6 1.2 MILES

alte
 Map produced May 2018.



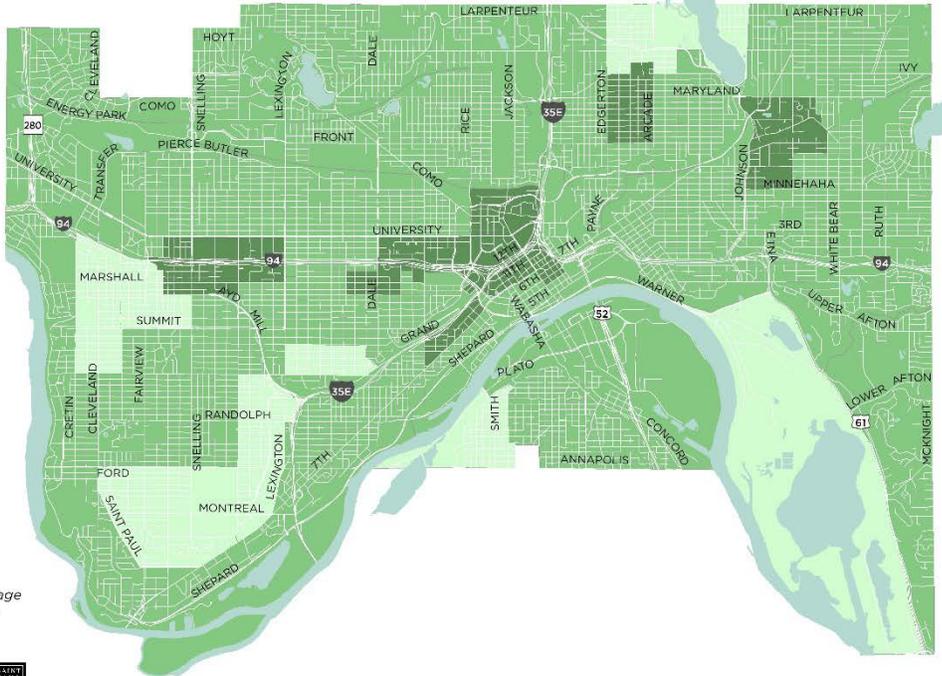
PRIORITIZATION CRITERIA

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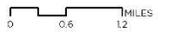
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Households with no Motor Vehicle

- Significantly lower than average (<4.7%)
- Average
- Significantly higher than average (>25.1%)



Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



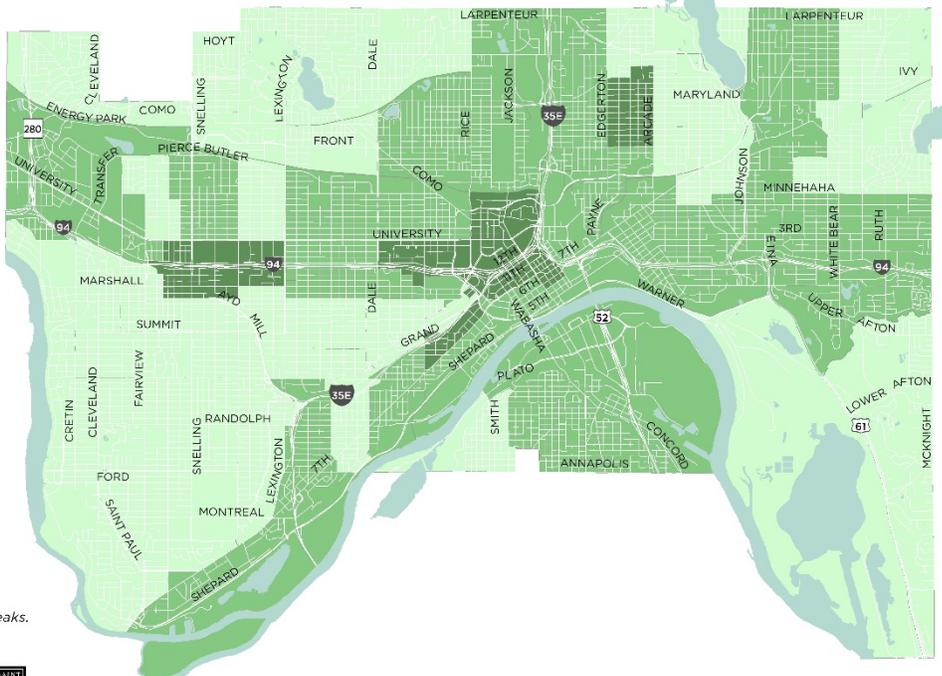
PRIORITIZATION CRITERIA

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Households with no Motor Vehicle:
Raw

- <11.7%
- 11.7%-25.5%
- >25.5%



Symbolized using natural breaks.



Safety

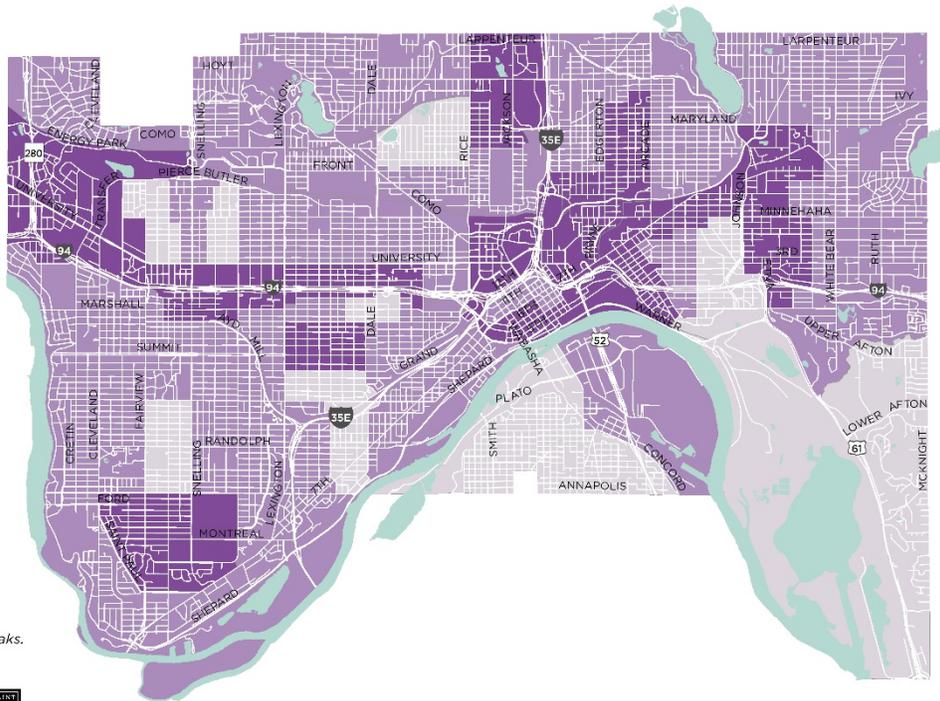
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Safety Score



The Safety Score combines miles of priority roadways for safety improvements and crashes relative to employment and population density.



Symbolized using natural breaks.



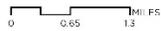
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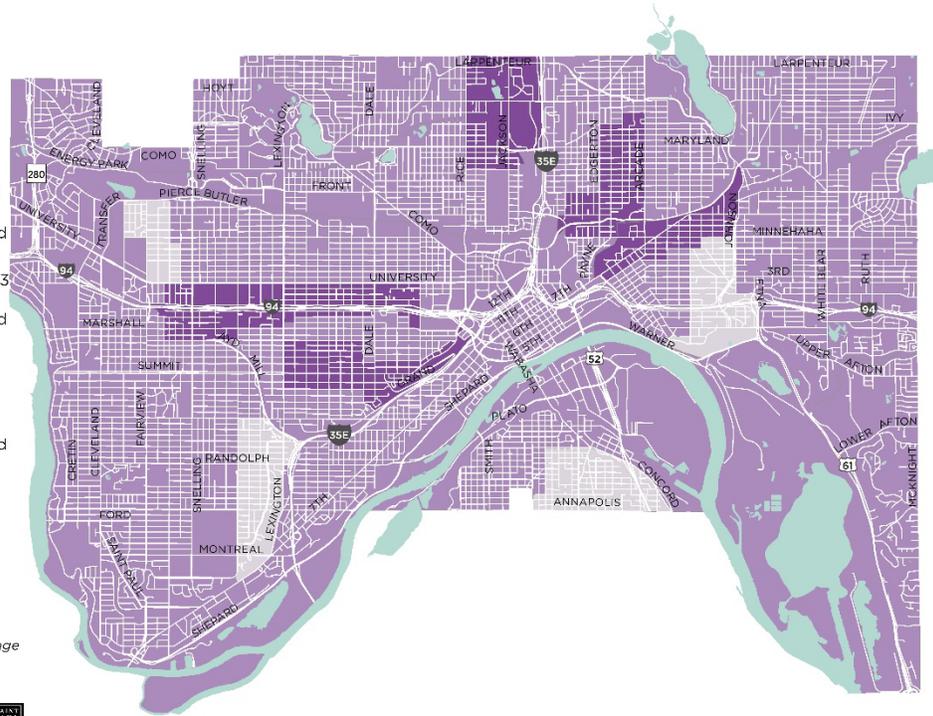
Pedestrian Involved Crashes 2013-2017

- Significantly lower than average (<0.3 crashes per 1,000 jobs and residents)
- Average (0.3-3 crashes per 1,000 jobs and residents)
- Significantly higher than average (>3 crashes per 1,000 jobs and residents)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



Map produced May 2018.



PRIORITIZATION CRITERIA

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Pedestrian Involved Crashes 2013-2017

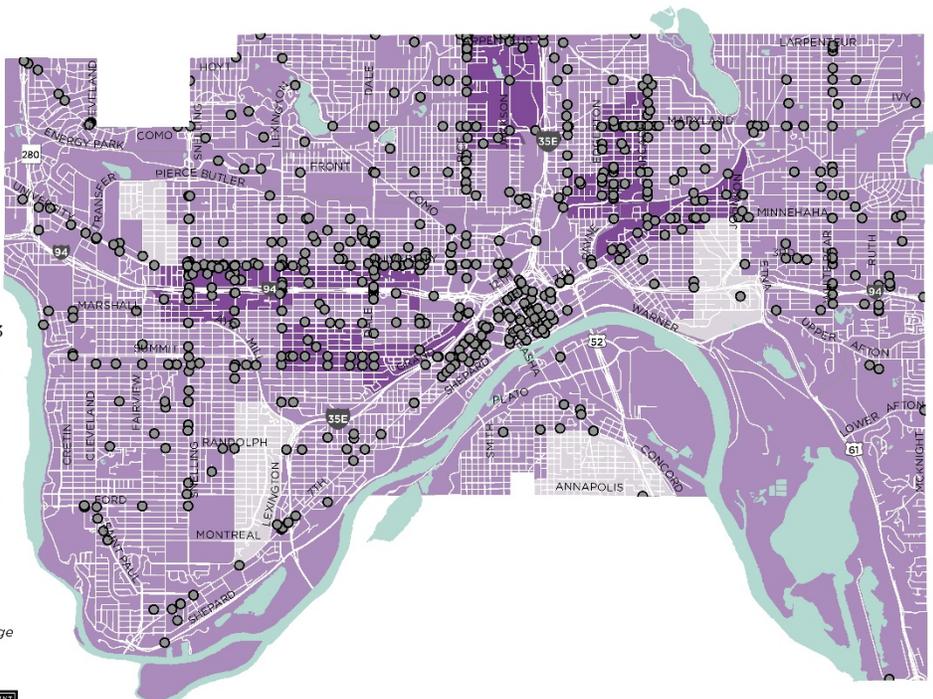
Pedestrian Involved Crashes 2013-2017

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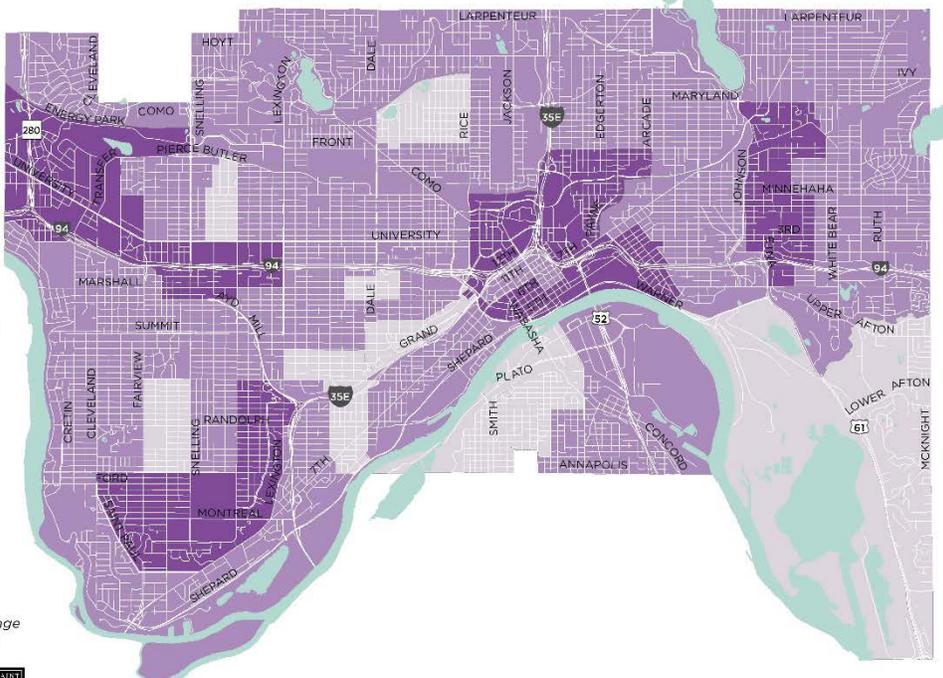
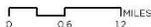
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Miles of Priority Streets for Safety Improvements

-  Significantly lower than average (<0.5 miles)
-  Average
-  Significantly higher than average (>3.6 miles)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



PRIORITIZATION CRITERIA

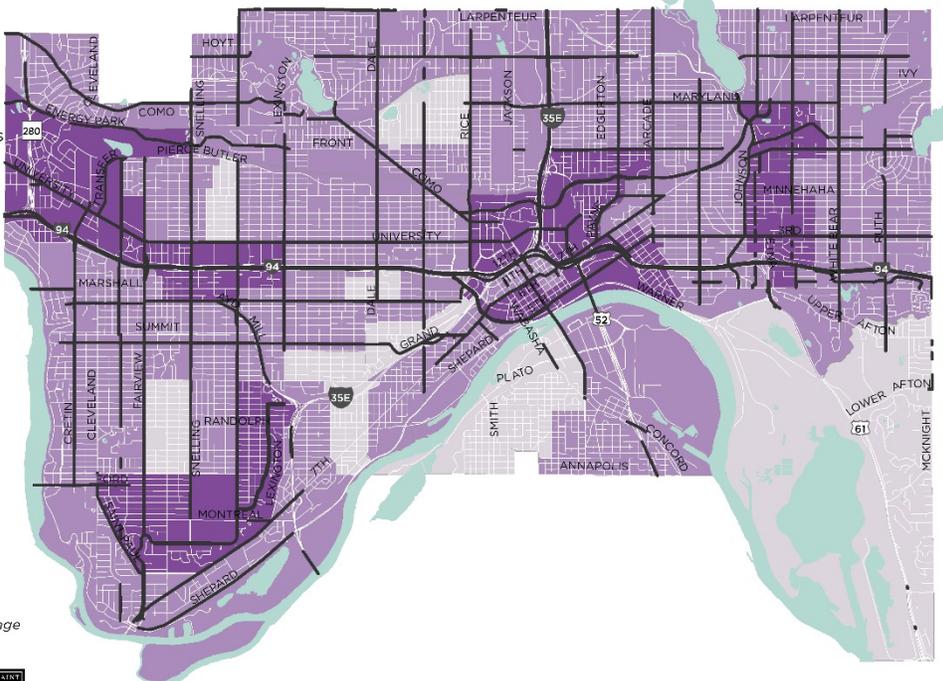
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Priority Streets for Pedestrian Safety Improvements

Miles of Priority Streets for Safety Improvements

-  Significantly lower than average (<0.5 miles)
-  Average
-  Significantly higher than average (>3.6 miles)

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Connectivity

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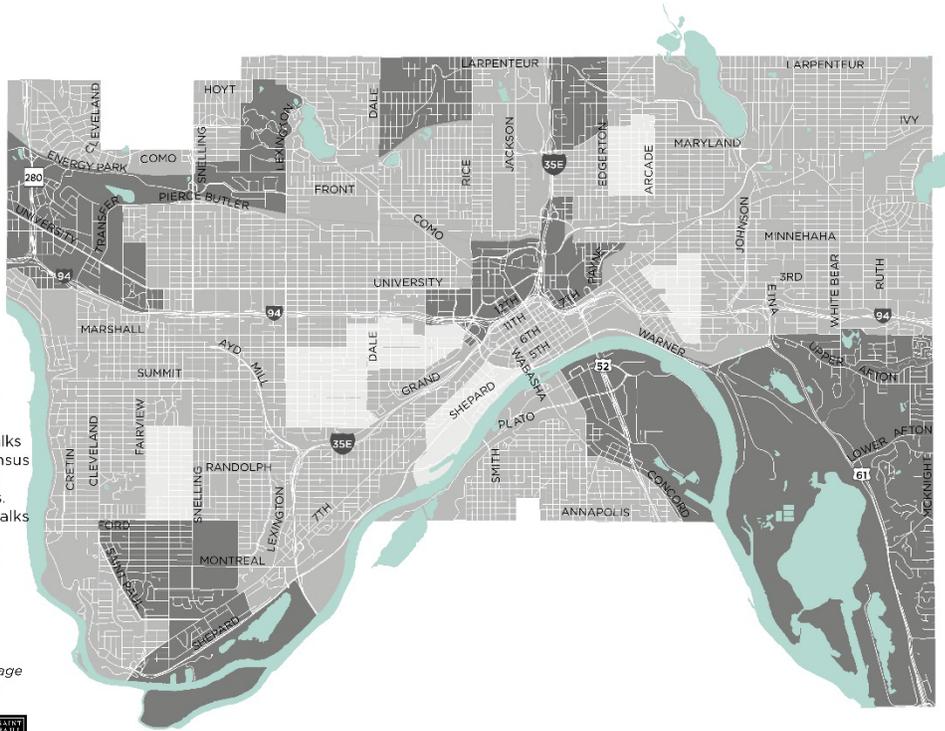
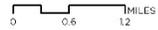
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Connectivity Score

-  Significantly better sidewalk coverage (Ratio > 1.6)
-  Average
-  Significantly worse sidewalk coverage (Ratio < 0.95)

The Connectivity Score compares miles of sidewalks to miles of streets in a census tract, excluding highways with no pedestrian access. A census tract with sidewalks on both sides of every roadway would have a 2:1 ratio of sidewalk miles to street miles.

Symbolized using standard deviation (SD):
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Higher: >1 SD above average



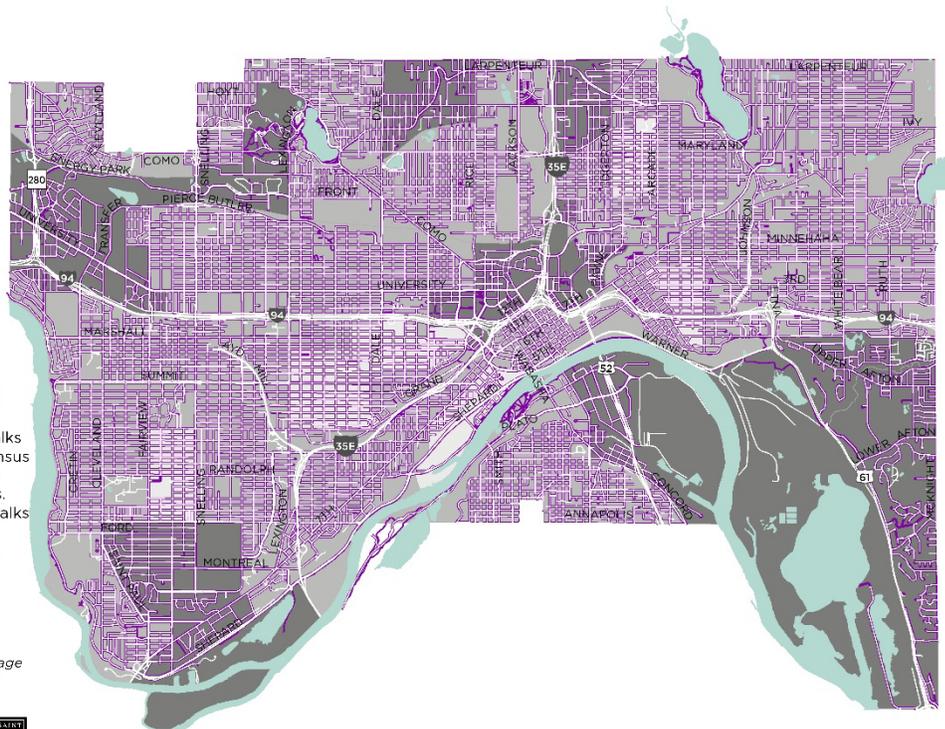
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-  Sidewalks
- Connectivity Score**
-  Significantly better sidewalk coverage (Ratio > 1.6)
 -  Average
 -  Significantly worse sidewalk coverage (Ratio < 0.95)

The Connectivity Score compares miles of sidewalks to miles of streets in a census tract, excluding highways with no pedestrian access. A census tract with sidewalks on both sides of every roadway would have a 2:1 ratio of sidewalk miles to street miles.

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Health

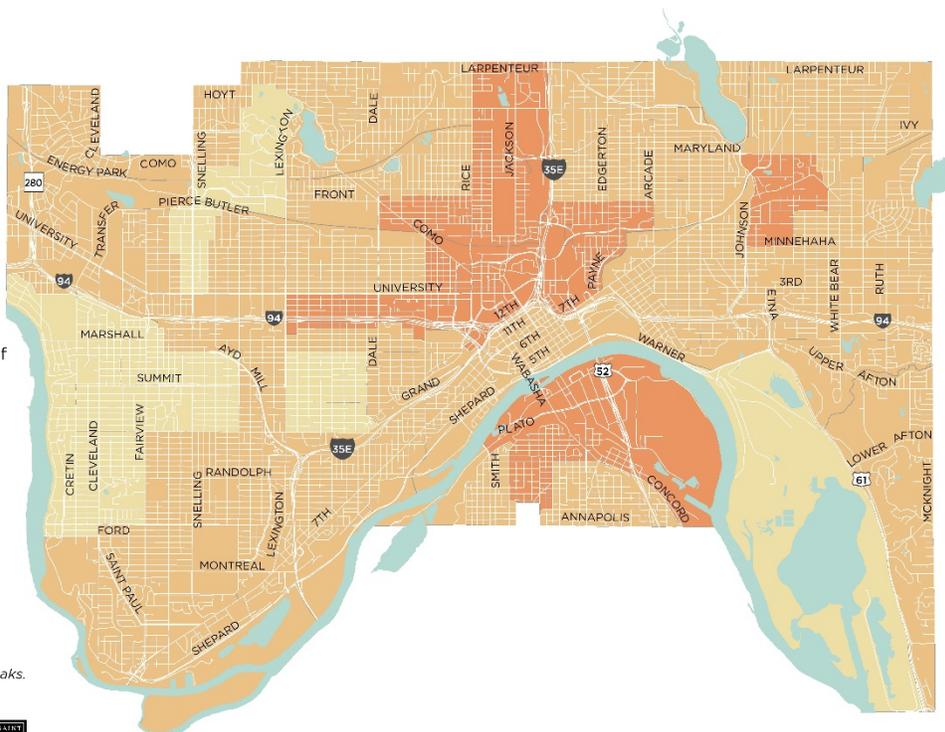
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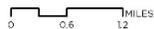
Health Outcomes Score

- Better than average
- Average
- Worse than average

The Health Outcomes Score combines rates of obesity, heart disease, asthma, and diabetes.



Symbolized using natural breaks.



PRIORITIZATION CRITERIA

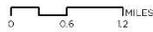
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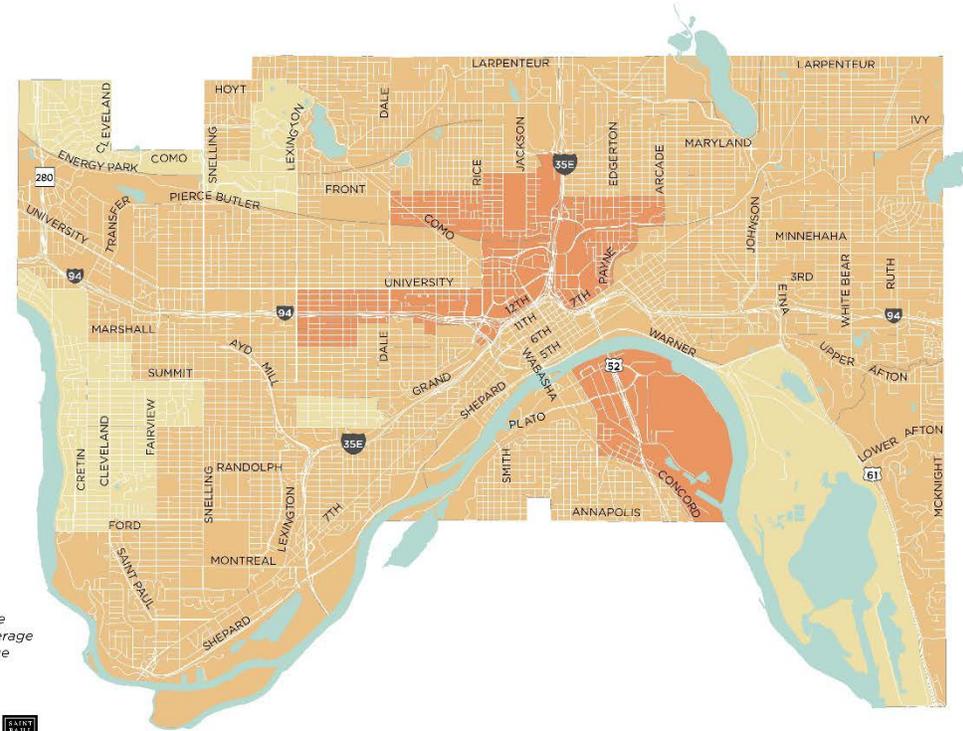
Rate of Obesity among Adults

- Significantly lower than average (<21.3%)
- Average
- Significantly higher than average (>31.5%)

*Symbolized using standard deviation (SD):
Lower: >1 SD below average
Average: Within 1 SD of average
Higher: >1 SD above average*



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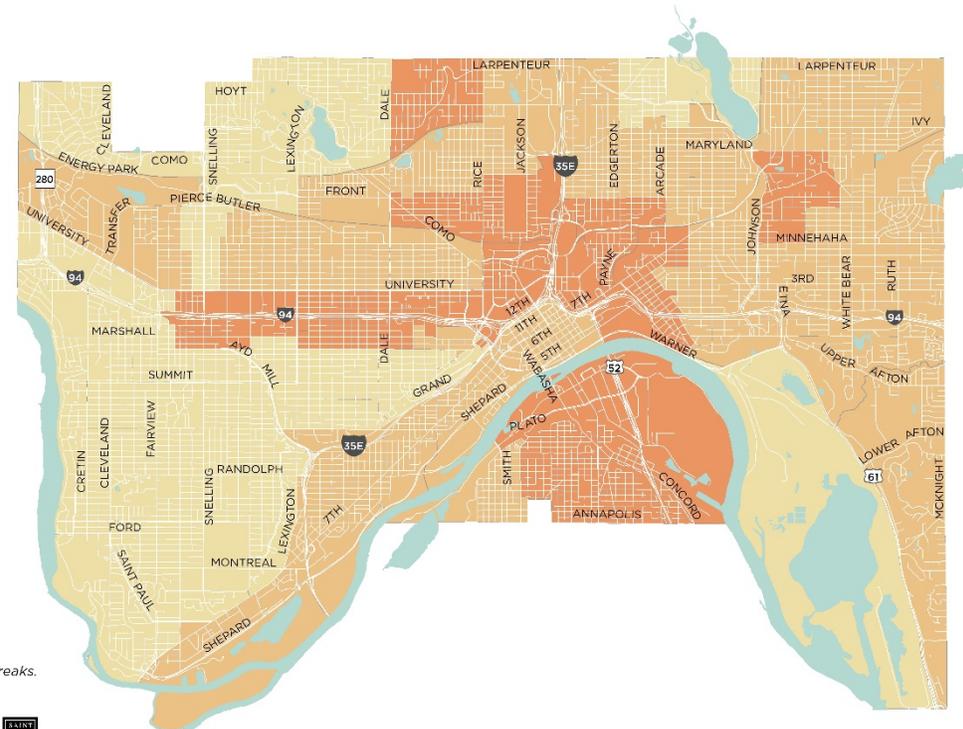
Rate of Obesity among Adults:
Raw

- <23.5%
- 23.5-29.6%
- >29.6%

Symbolized using natural breaks.



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Map produced May 2018.



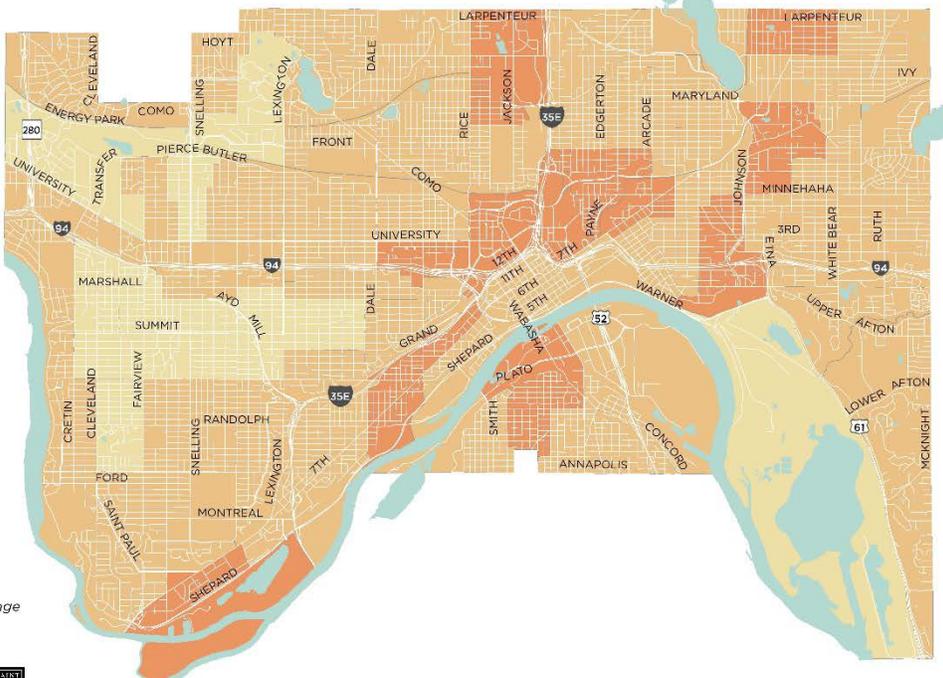
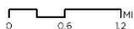
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Rate of Heart Disease among Adults

- Significantly lower than average (<3.3%)
- Average
- Significantly higher than average (>5.9%)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



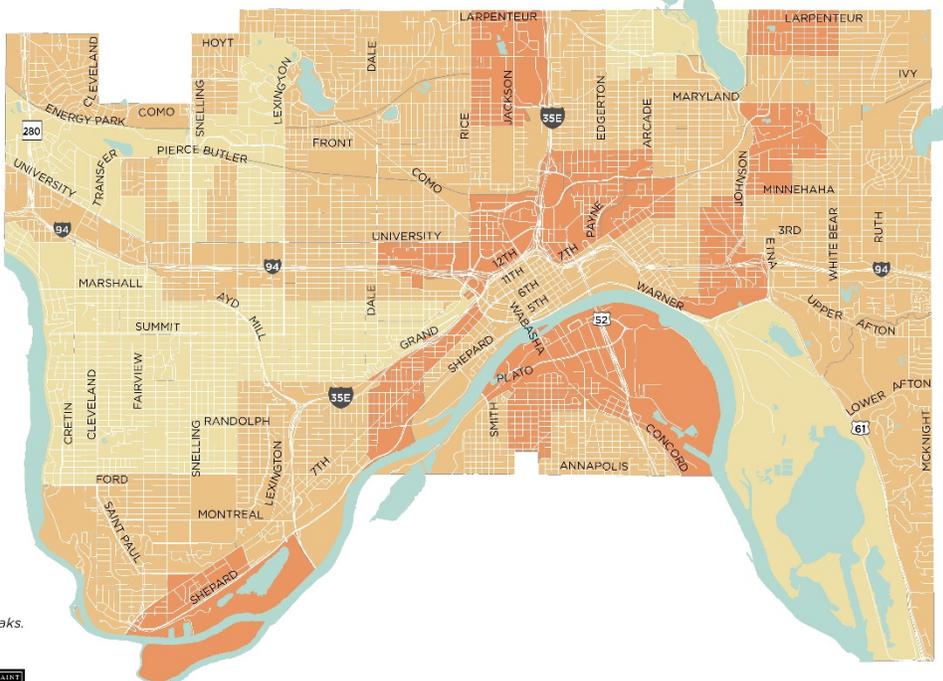
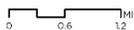
PRIORITIZATION CRITERIA

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Rate of Coronary Heart Disease among Adults: Raw

- <3.8%
- 3.8-5.5%
- >5.5%

Symbolized using natural breaks.



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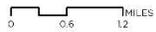
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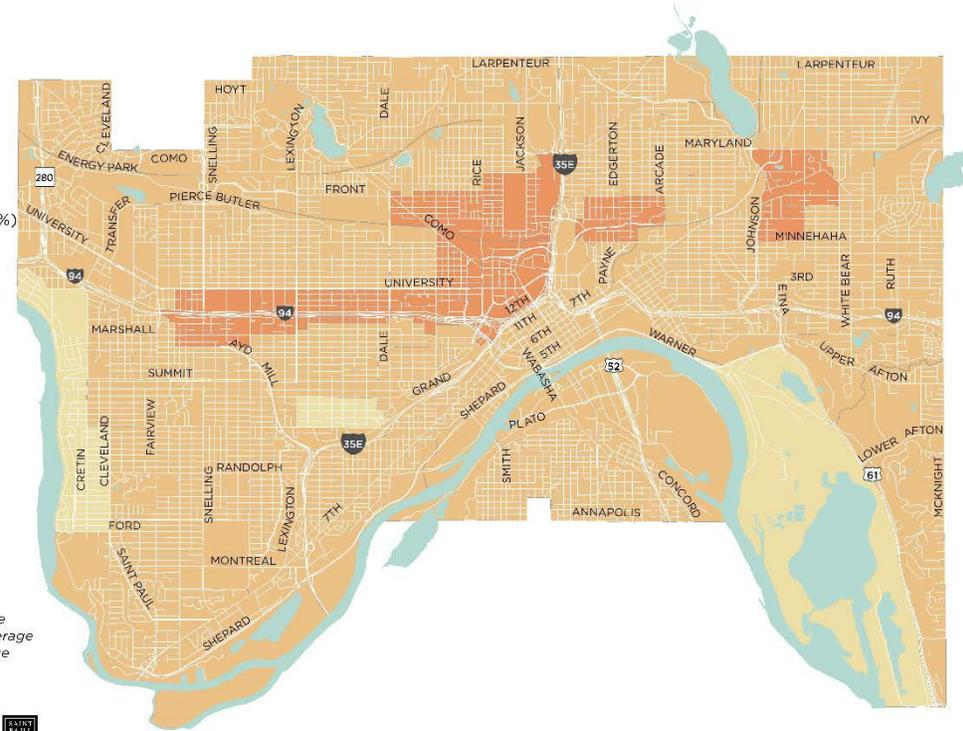
Rate of Asthma among Adults

- Significantly lower than average (<7%)
- Average
- Significantly higher than average (>9.7%)

*Symbolized using standard deviation (SD):
Lower: >1 SD below average
Average: Within 1 SD of average
Higher: >1 SD above average*



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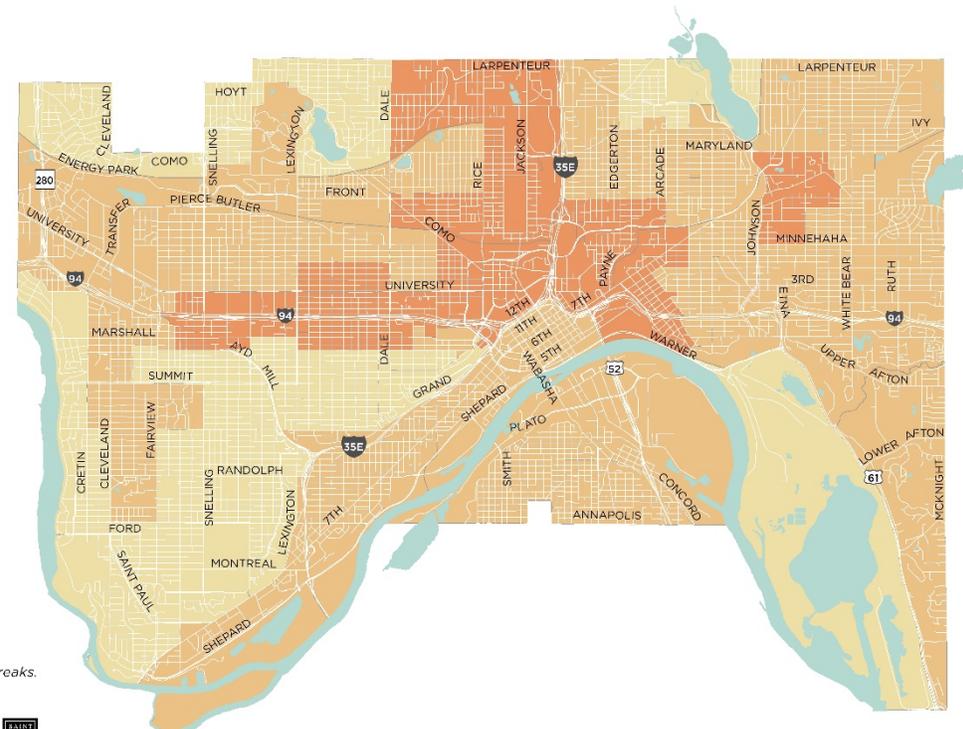
Rate of Asthma among Adults:
Raw

- <7.5%
- 7.5-9.1%
- >9.1%

Symbolized using natural breaks.



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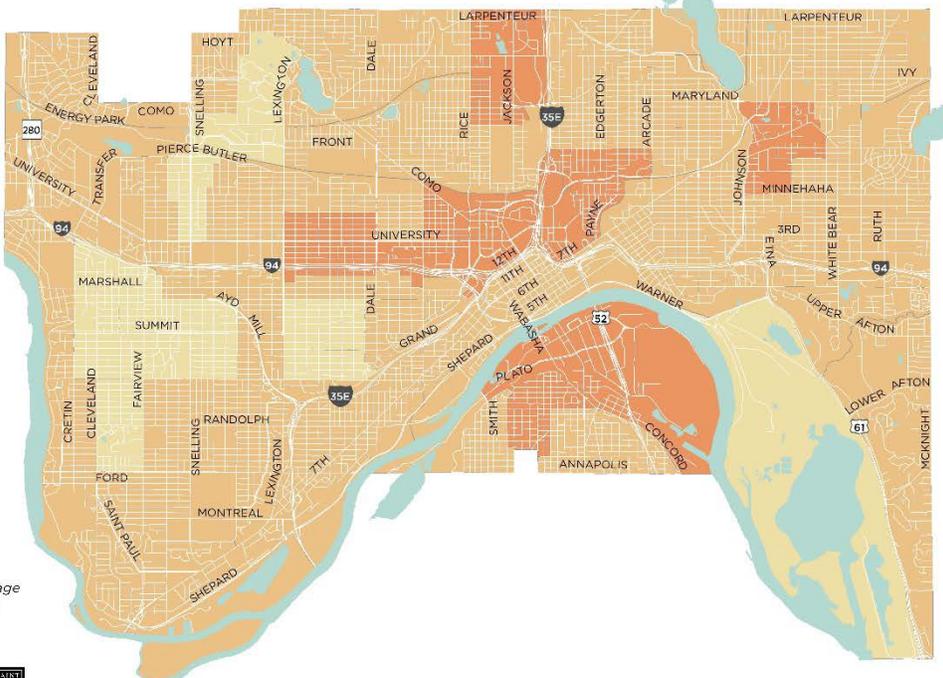
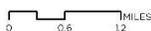
PRIORITIZATION CRITERIA

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Rate of Diabetes among Adults

- Significantly lower than average (<5.5%)
- Average
- Significantly higher than average (>11.4%)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



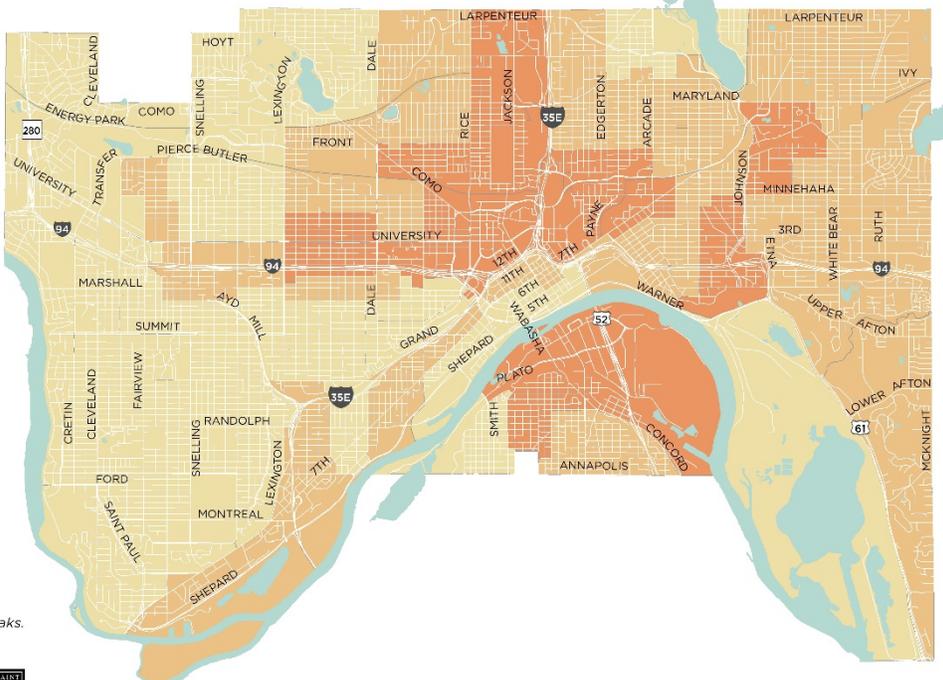
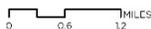
PRIORITIZATION CRITERIA

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Rate of Diabetes among Adults:
 Raw

- <7.3%
- 7.3-10.9%
- >10.8%

Symbolized using natural breaks.



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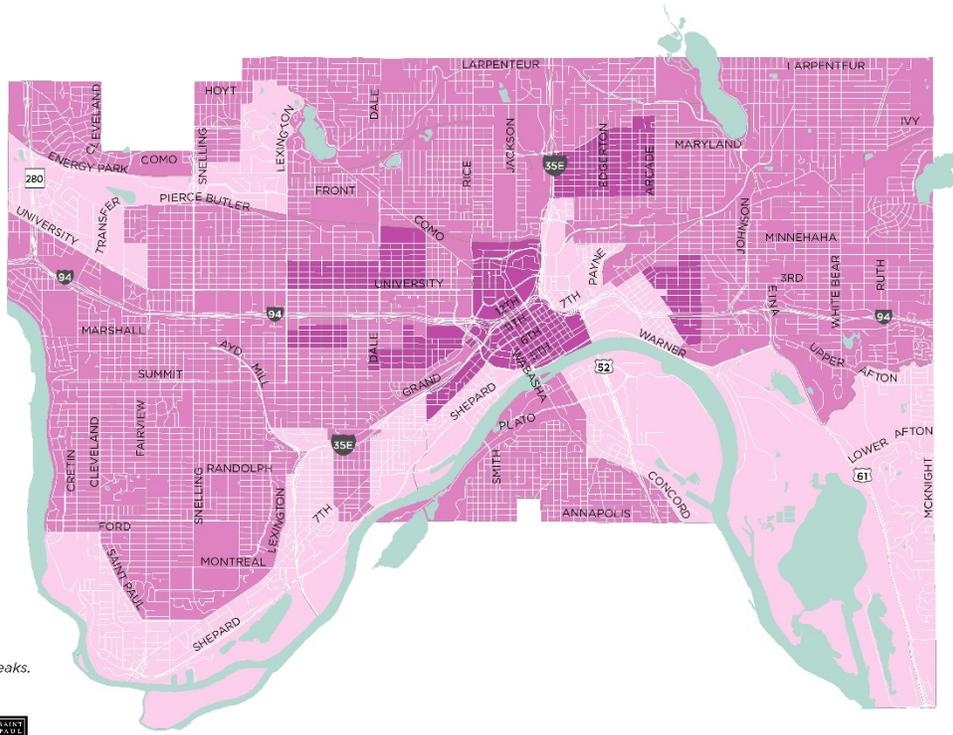
Population and Employment Density

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Density Composite Score

- Lower than average
- Average
- Higher than average



Symbolized using natural breaks.



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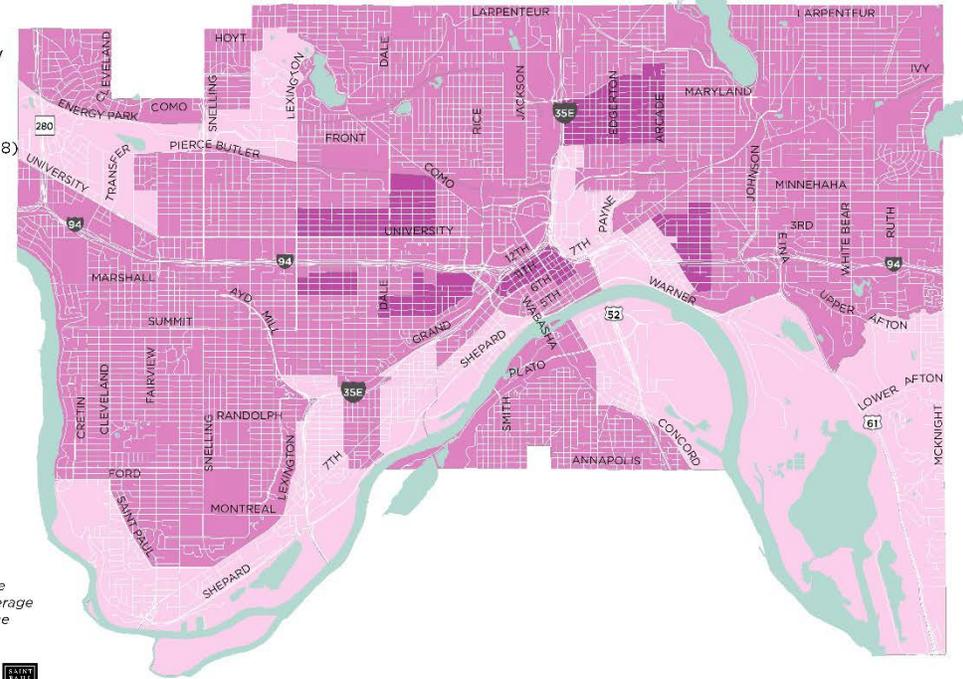
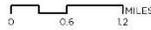
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Population Density (residents/acre)

- Significantly lower than average (<5.8)
- Average
- Significantly higher than average (>16.3)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



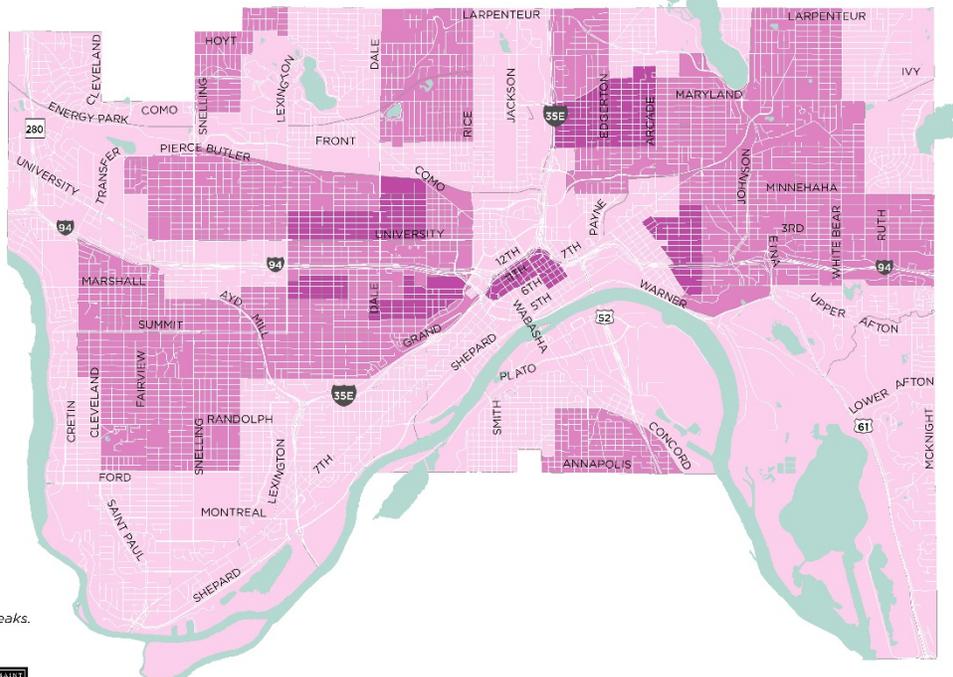
PRIORITIZATION CRITERIA

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Population Density (residents/acre): Raw

- <9.5
- 9.5-16.3
- >16.3

Symbolized using natural breaks.



PRIORITIZATION CRITERIA

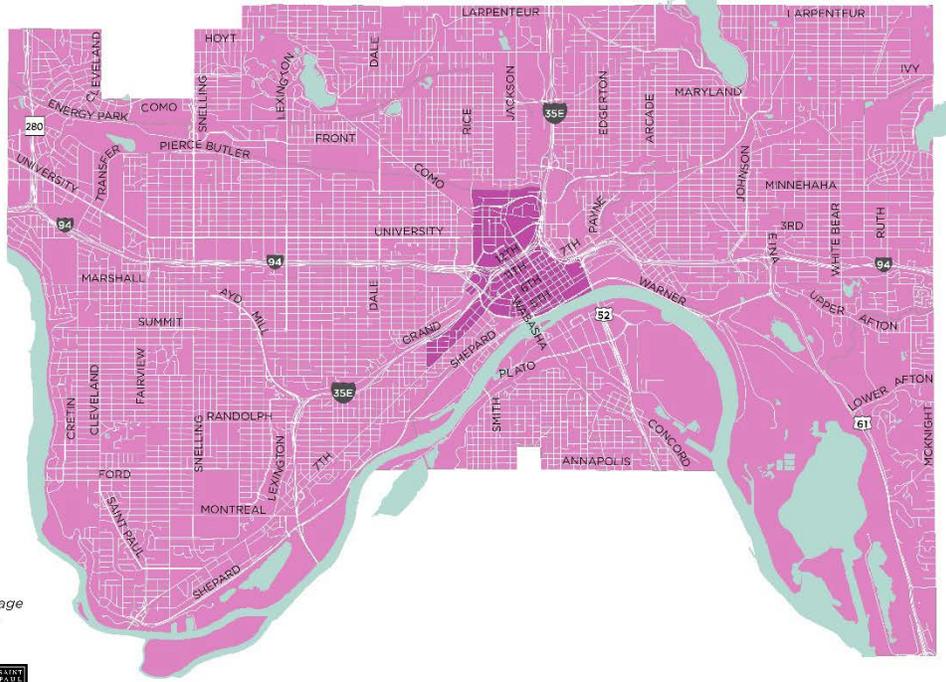
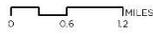
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Employment Density (jobs/acre)

- Average (Mean=7.6)
- Significantly higher than average (>27.2)

*Note: No census tract is significantly lower than average because a census tract would need to have a negative ratio of jobs per acre to qualify as significantly lower than average.

Symbolized using standard deviation (SD):
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 Average: Within 1 SD of average
 Higher: >1 SD above average



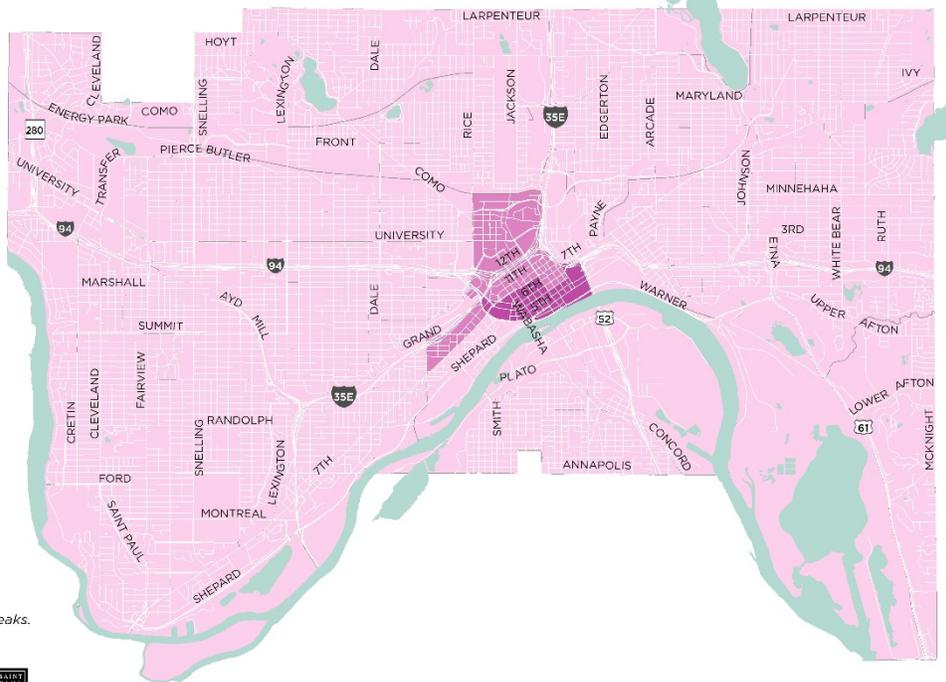
PRIORITIZATION CRITERIA

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Employment Density: Raw (jobs/acre)

- <16.7
- 16.7-55.3
- >55.3

Symbolized using natural breaks.



Destinations

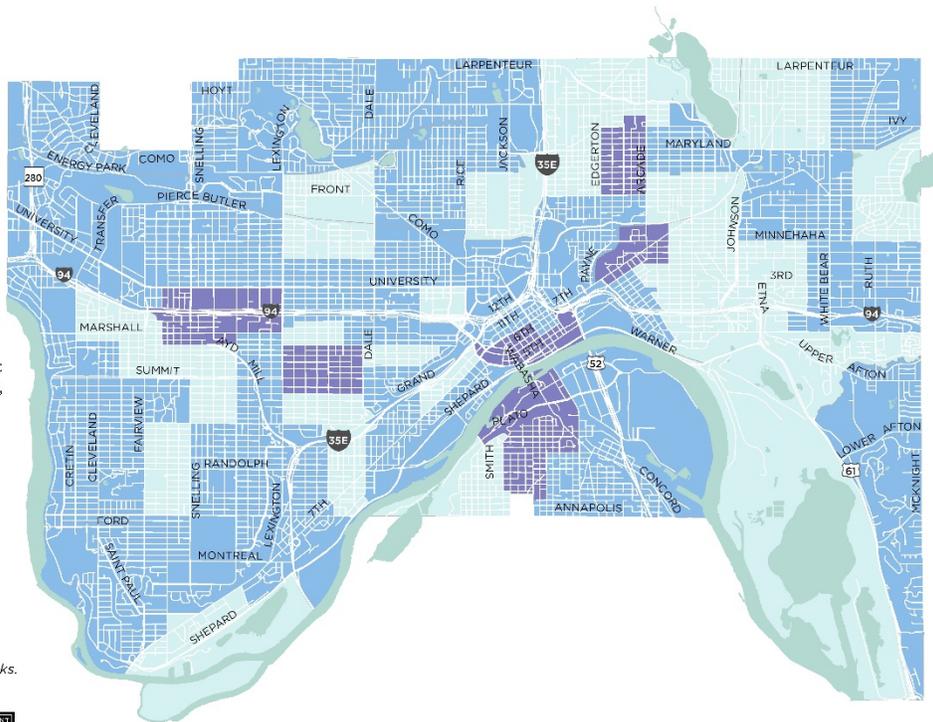
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Destination Score

- Lower than average
- Average
- Higher than average

The Destination Score combines schools, parks, universities, public buildings, grocery stores, cornerstores, farmers markets, food shelves, and neighborhood business nodes.



Symbolized using natural breaks.



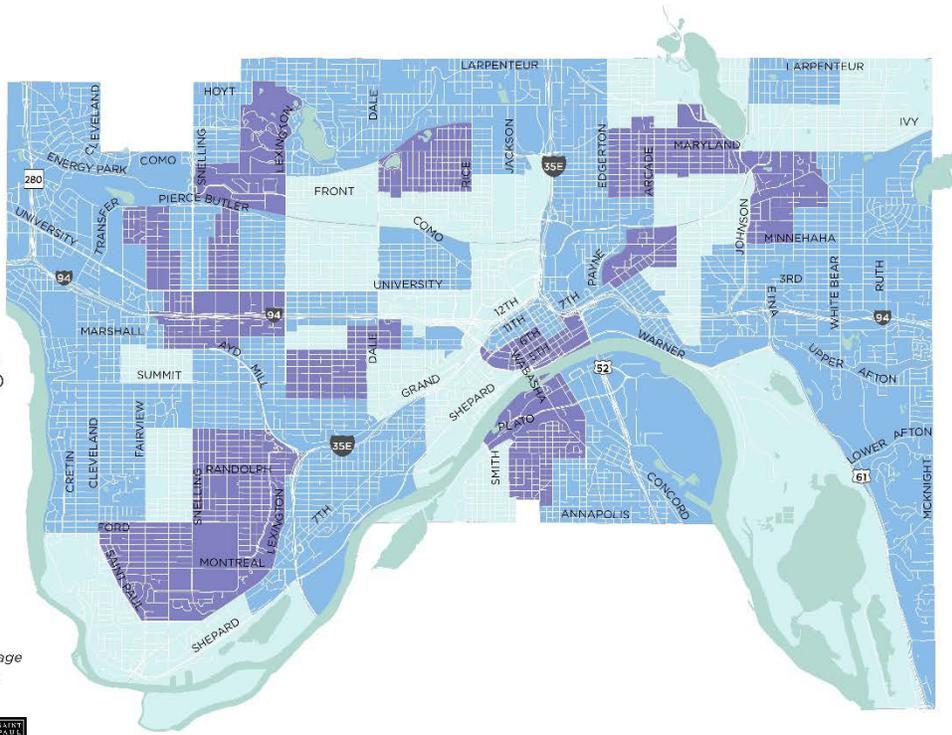
PRIORITIZATION CRITERIA

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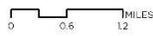
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Number of K-12 Public, Private, and Charter Schools

-  Significantly lower than average (No schools)
-  Average (1-2 schools)
-  Significantly higher than average (3 or more schools)



Symbolized using standard deviation (SD):
 Lower: >1 SD below average
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 Higher: >1 SD above average



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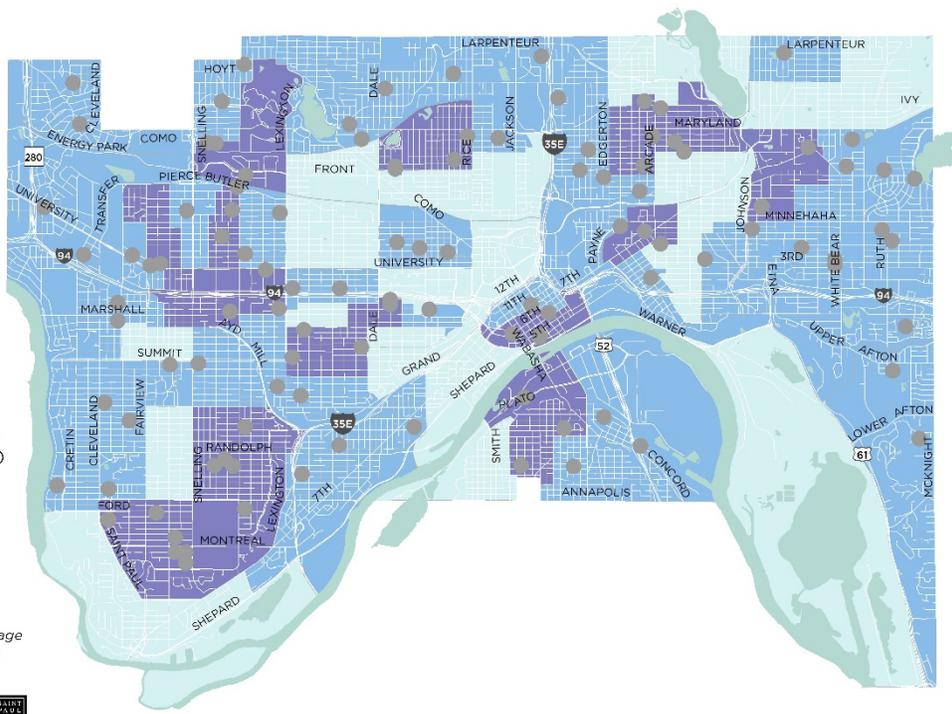
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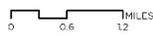
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 Higher: >1 SD above average



 Map produced May 2018.



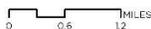
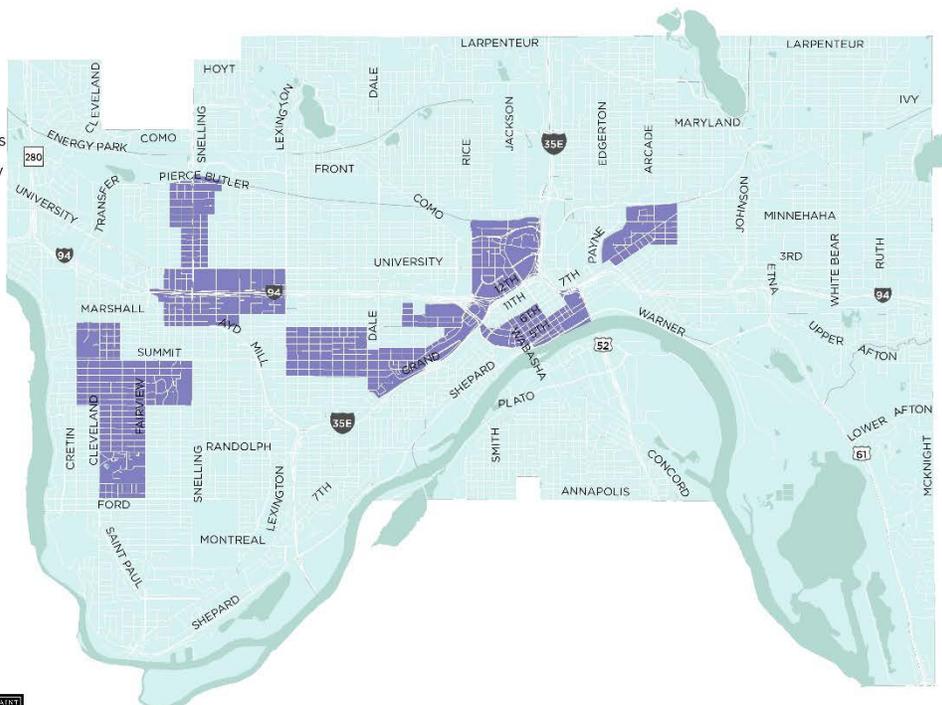
PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

DRAFT: 5.1.18

Number of Universities

- No universities
- One university



alte
Map produced May 2018.



PRIORITIZATION CRITERIA

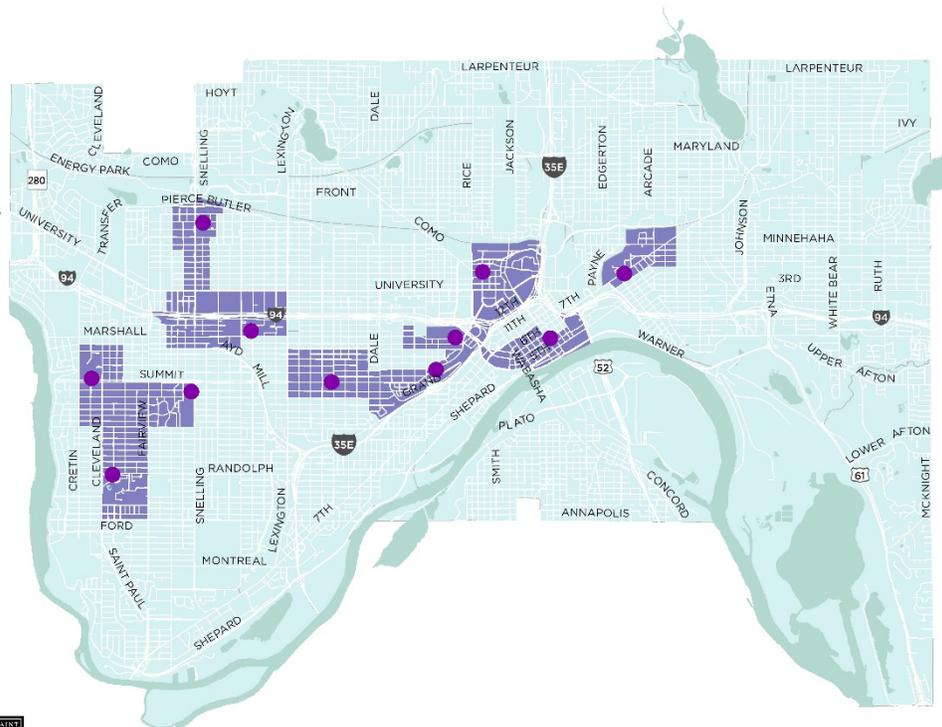
SAINT PAUL PEDESTRIAN PLAN

DRAFT: 5.7.18

College or University

Number of Universities

- College or University
- No universities
- One university



alte
Map produced May 2018.



PRIORITIZATION CRITERIA

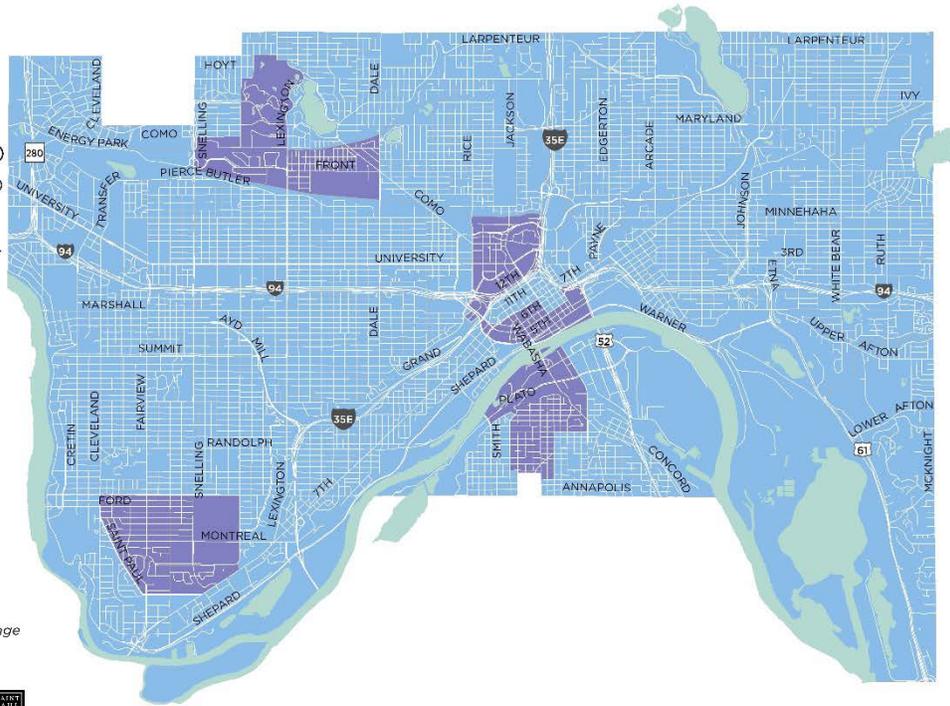
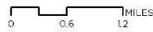
SAINT PAUL PEDESTRIAN PLAN

Number of Public Buildings (City, County, Hospitals, Cultural Institutions)

- Average (0-11)
- Significantly higher than average (12 or more)

*Note: No census tract is significantly lower than average because a census tract would need to have a negative number of public buildings to qualify as significantly lower than average.

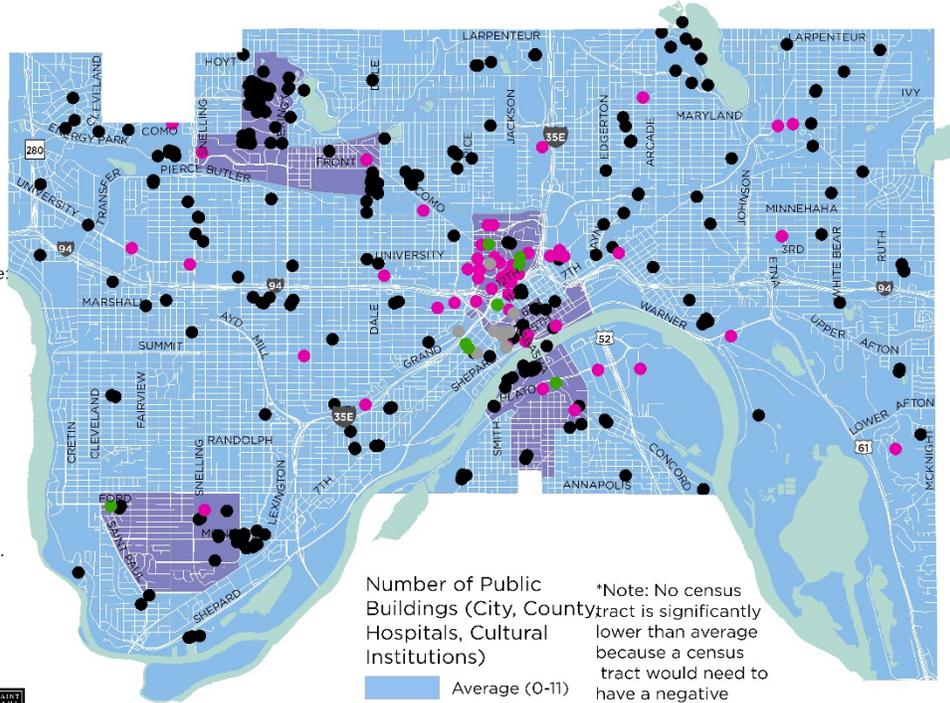
Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

- Hospitals and Clinics
- Major Cultural Institutions: Museums, Historical Sites, Theaters, Sports Centers
- County and State: Courthouses, Governor's Mansion, Capitol, Service Centers, Offices, Arenas, Correctional Facilities
- City: Libraries, Offices, Recreation Facilities, Police and Fire Stations, Garages



Number of Public Buildings (City, County, Hospitals, Cultural Institutions)

- Average (0-11)
- Significantly higher than average (12 or more)

*Note: No census tract is significantly lower than average because a census tract would need to have a negative number of public buildings to qualify as significantly lower than average.

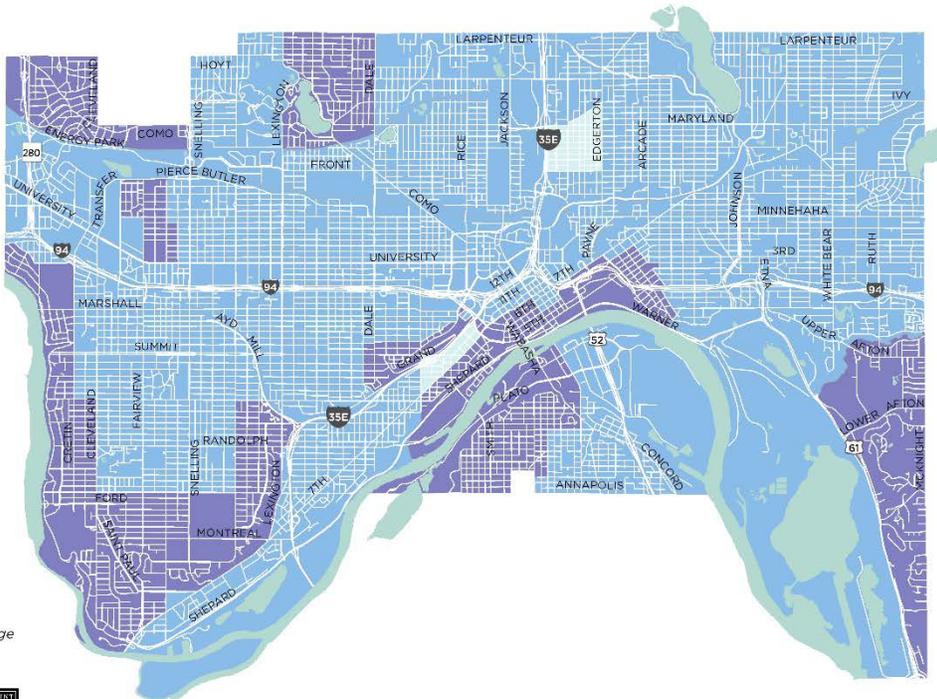
Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

- Number of Parks
- Significantly lower (No parks)
 - Average (1-5 parks)
 - Significantly higher (6 or more parks)



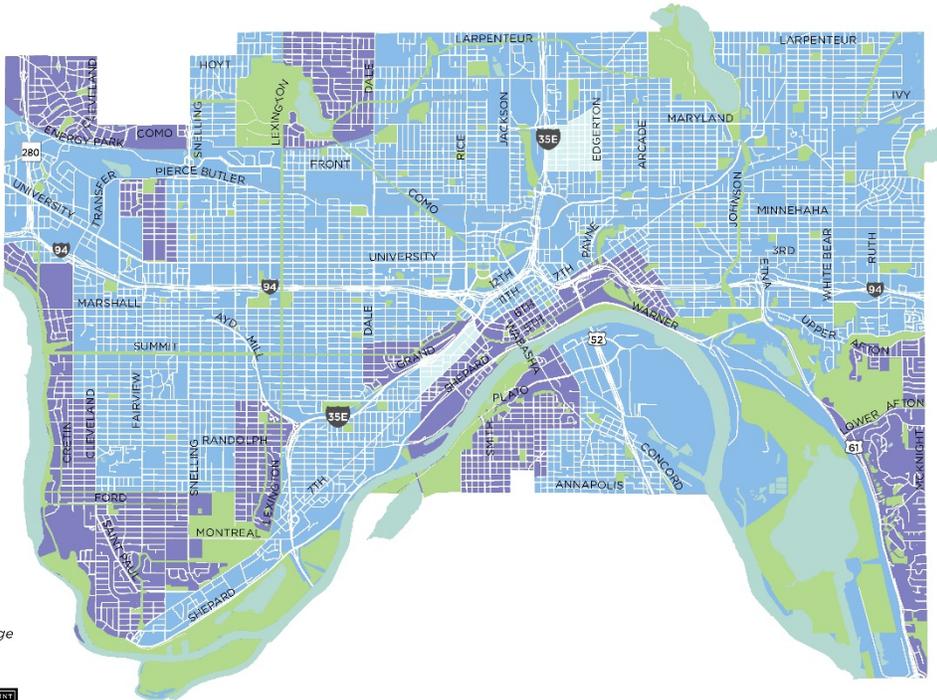
Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

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 - Significantly higher (6 or more parks)



Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



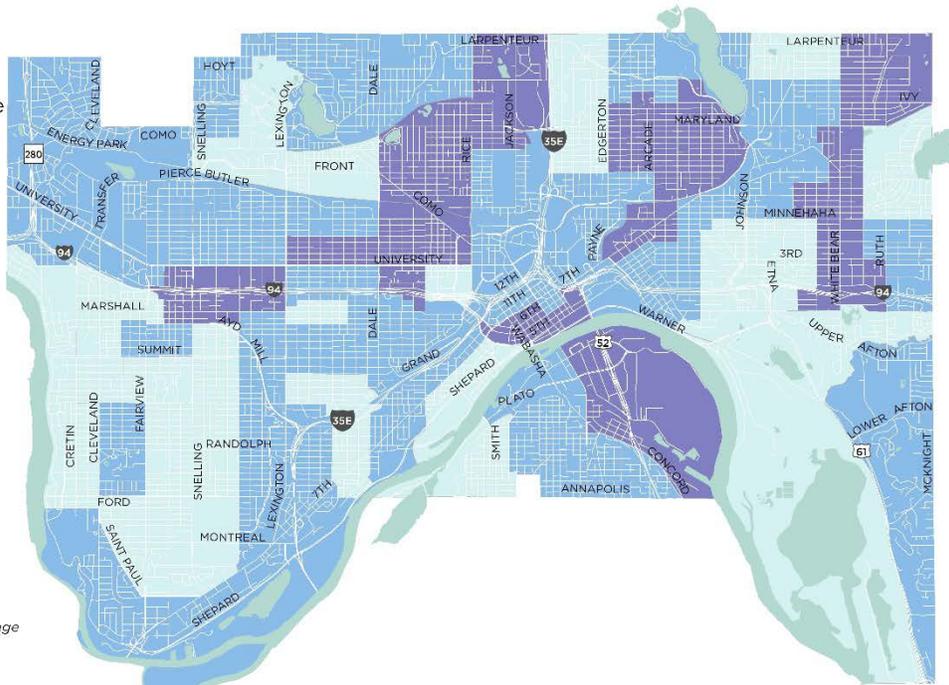
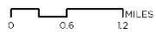
PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

Number of Grocery Stores, Convenience Stores, Farmers Markets, and Food Shelves

- Significantly Lower (0)
- Average (1-2)
- Significantly higher than average (3 or more)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



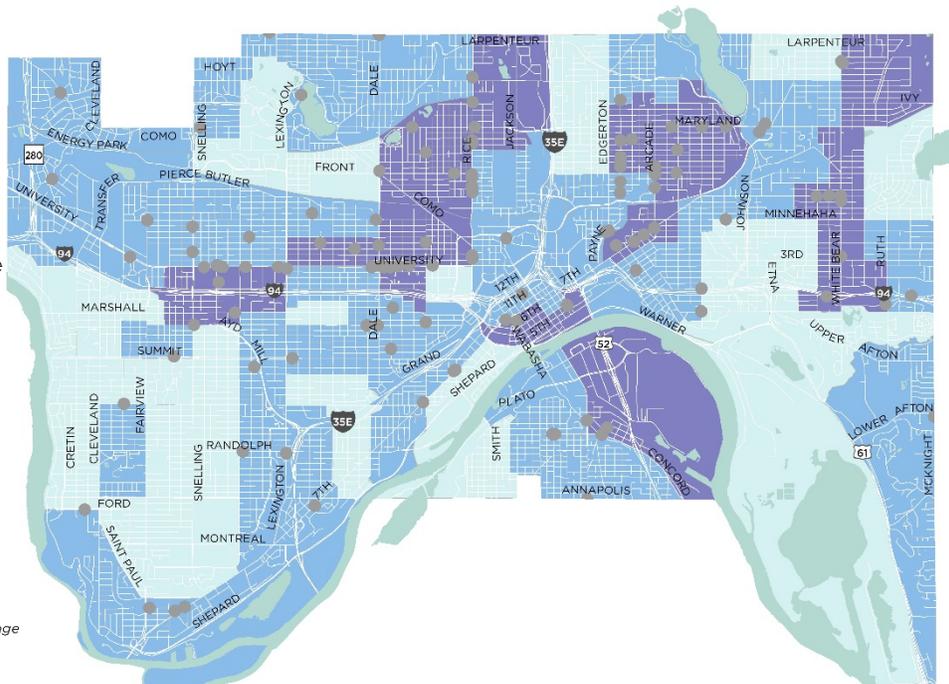
PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

Number of Grocery Stores, Convenience Stores, Farmers Markets, and Food Shelves

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- Significantly higher than average (3 or more)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



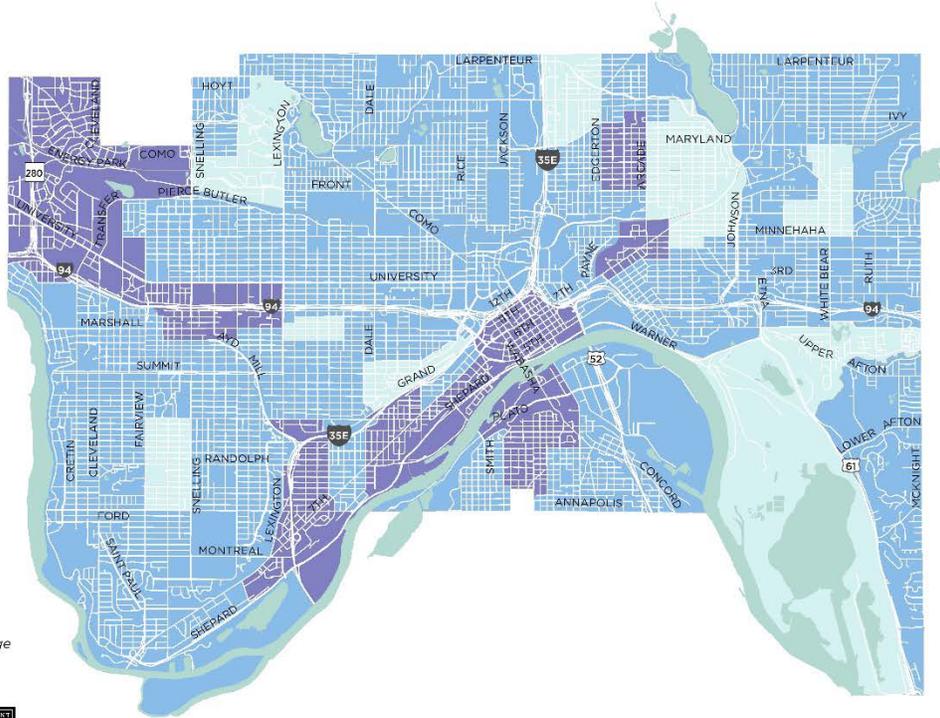
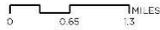
PRIORITIZATION CRITERIA

SAINT PAUL PEDESTRIAN PLAN

Acres within 1/4 Mile of a Neighborhood Node

- Significantly lower than average (Less than 29.4 acres)
- Average (29.4-134.9 acres)
- Significantly higher than average (More than 134.9 acres)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



PRIORITIZATION CRITERIA

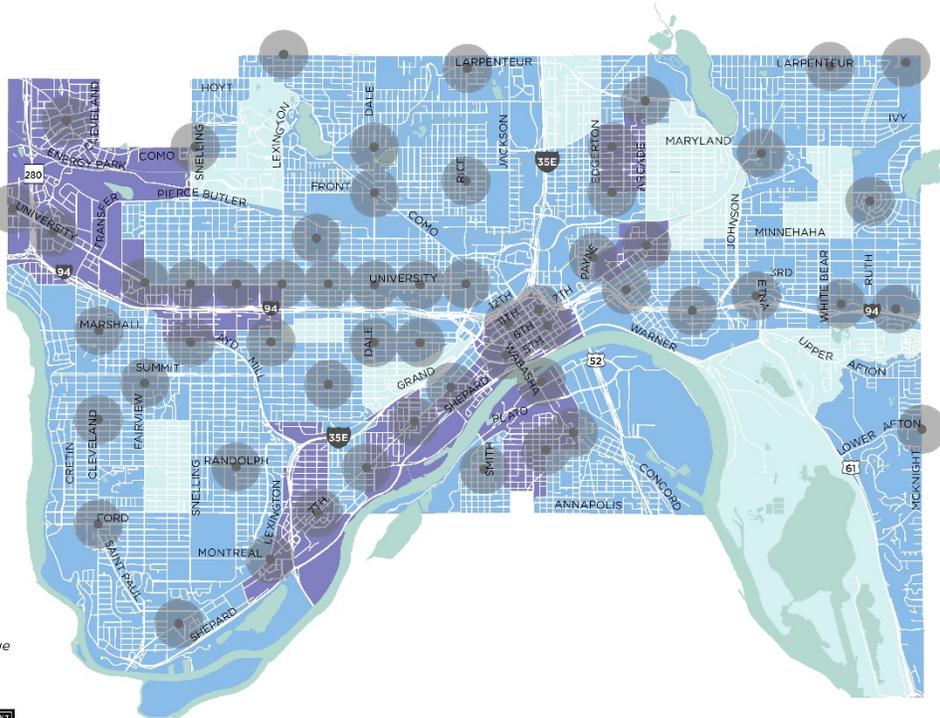
SAINT PAUL PEDESTRIAN PLAN

- Area within 1/4 Mile of Neighborhood Node
- Neighborhood Node

Acres within 1/4 Mile of a Neighborhood Node

- Significantly lower than average (Less than 29.4 acres)
- Average (29.4-134.9 acres)
- Significantly higher than average (More than 134.9 acres)

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average



Transit

PRIORITIZATION CRITERIA

DRAFT: 5.118

SAINT PAUL PEDESTRIAN PLAN

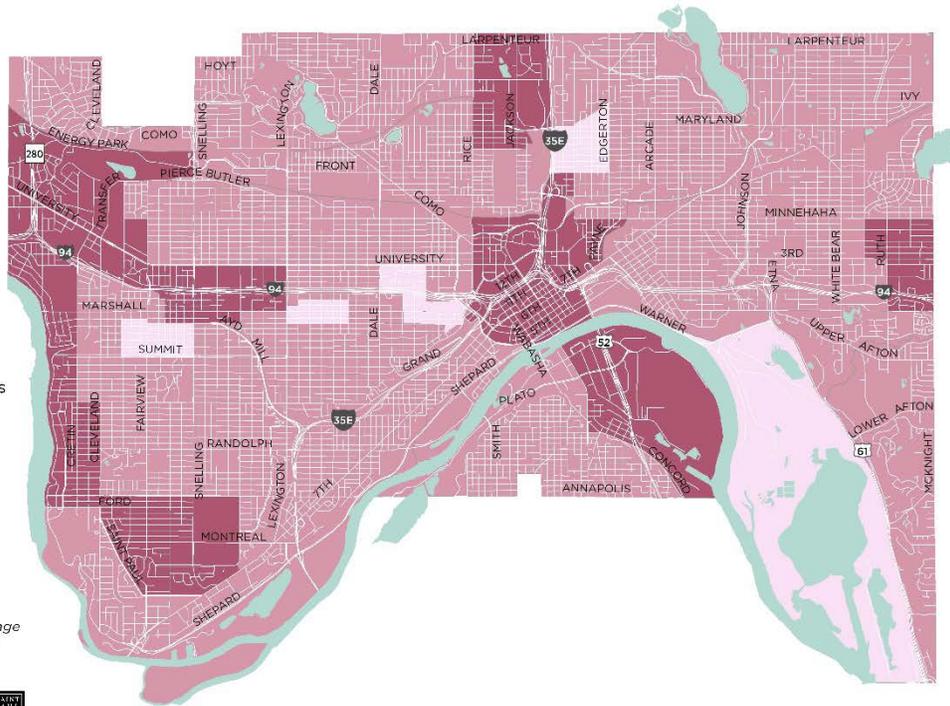
Transit Score

- Significantly lower than average
- Average
- Significantly higher than average

The Transit Score reflects the number of bus stops in a census tract weighted by the number of routes running past each stop.

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average

0 0.6 1.2 MILES



PRIORITIZATION CRITERIA

DRAFT: 5.118

SAINT PAUL PEDESTRIAN PLAN

- Transit Stops
- Transit Routes

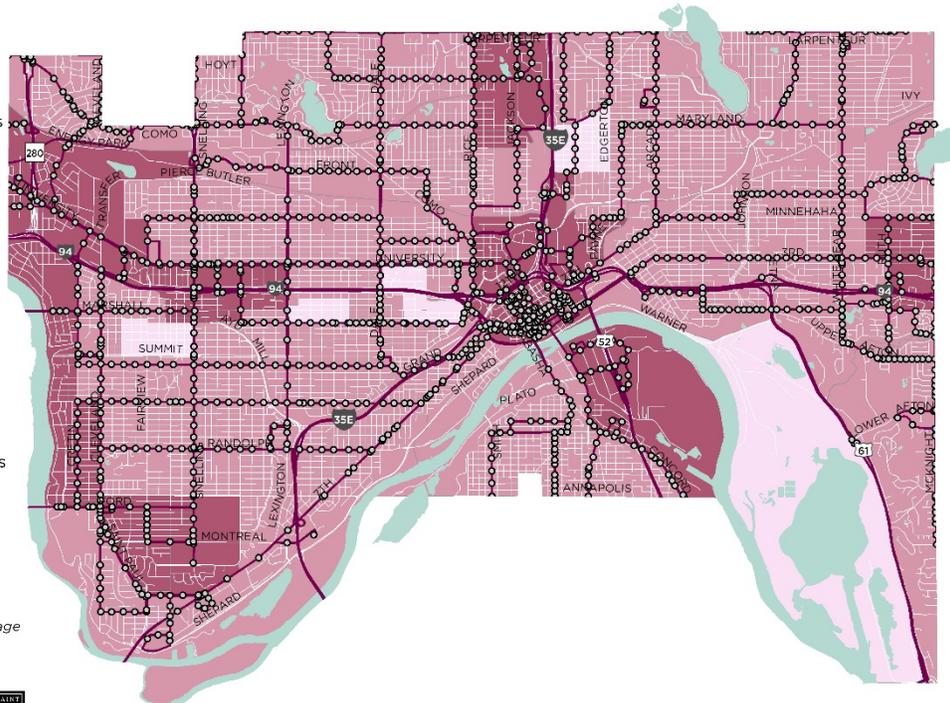
Transit Score

- Significantly lower than average
- Average
- Significantly higher than average

The Transit Score reflects the number of bus stops in a census tract weighted by the number of routes running past each stop.

Symbolized using standard deviation (SD):
 Lower: >1 SD below average
 Average: Within 1 SD of average
 Higher: >1 SD above average

0 0.6 1.2 MILES



Prioritization Options

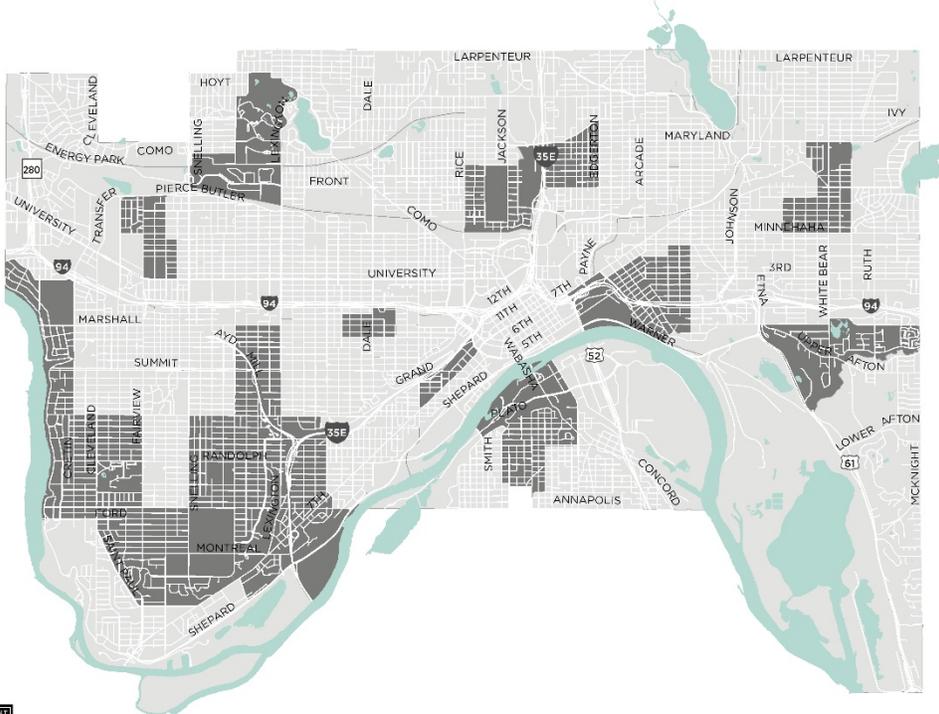
The following four models show options for prioritization of Saint Paul’s 82 census tracts based on the seven factors detailed in the previous pages (equity, health, safety, connectivity, transit, destinations, and density). Each model weights these factors differently to produce a total score. The census tracts are divided into thirds based on their total score, with 28 tracts identified as top priority, 27 tracts identified as medium priority, and 27 tracts identified as low priority. 64 census tracts had the same priority level across all four models and 18 census tracts changed priority level depending on weighting, as shown in the map below.

PRIORITIZATION CRITERIA SAINT PAUL PEDESTRIAN PLAN

DRAFT: 5.8.18

Priority level across all models

- Consistent across all models
- Inconsistent across all models



0 0.65 1.3 MILES

alta
Map produced May 2018.



Model 1: Equal weighting

DRAFT: 5.8.18

PRIORITIZATION CRITERIA

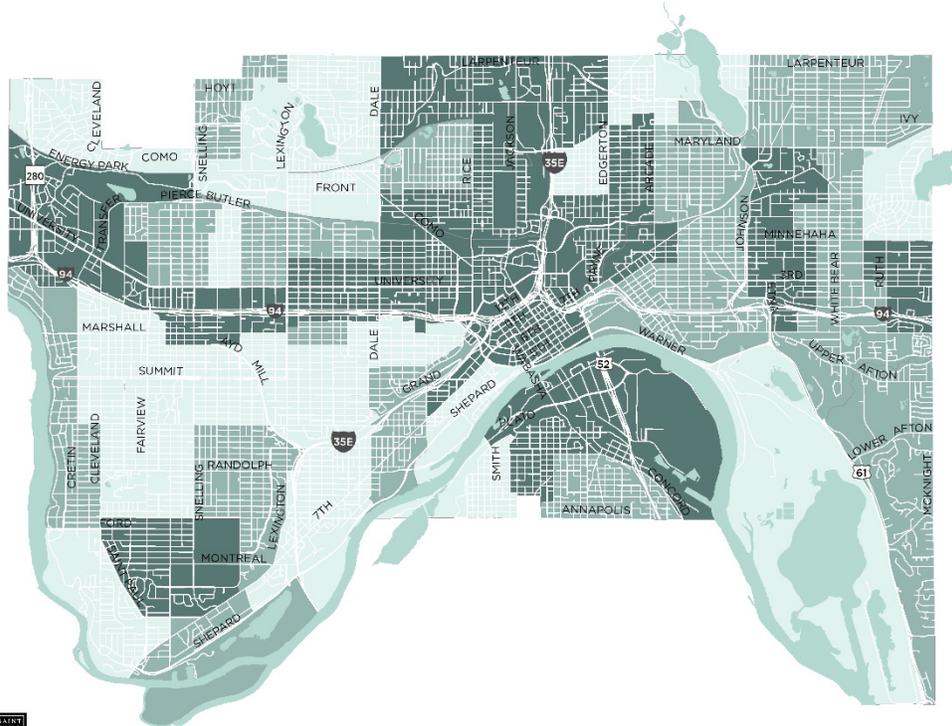
SAINT PAUL PEDESTRIAN PLAN

Priority Level (Model 1: Equal Weighting)

- Bottom third
- Middle third
- Top third

The Total Score combines the equity, connectivity, health, density, safety, transit, and destination scores.

Weighting: All items equally weighted



0 0.6 1.2 MILES

alta
Map produced May 2018.



In this scenario, all factors are weighted equally. This scenario is presented as a point of reference for decision making.

Model 2: Survey weighting

DRAFT: 5.8.18

PRIORITIZATION CRITERIA

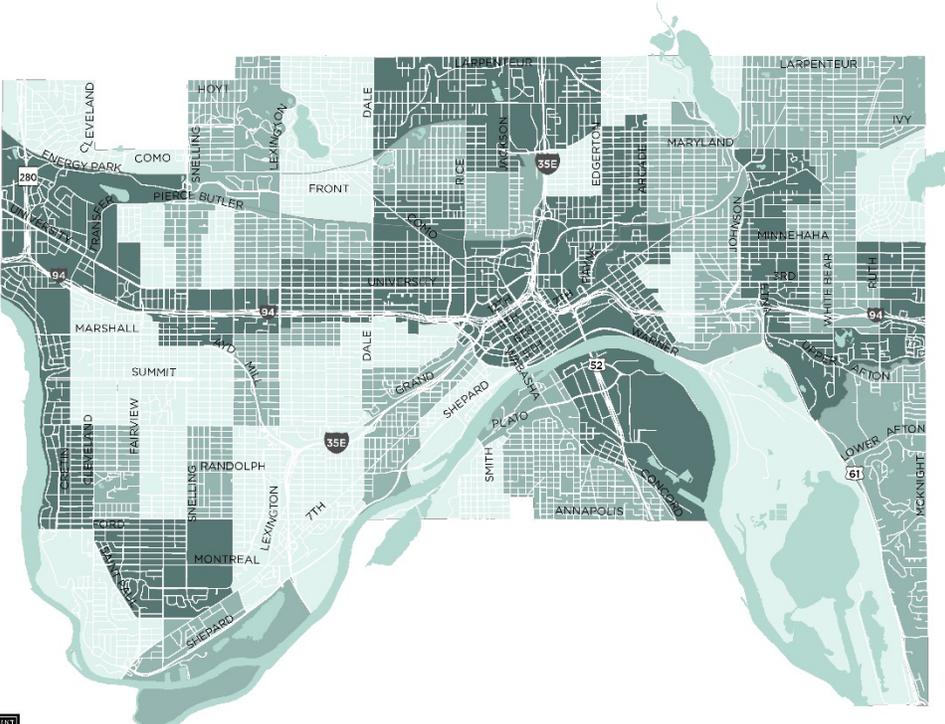
SAINT PAUL PEDESTRIAN PLAN

Priority Level (Model 2: Survey Weighting)



The Total Score combines the equity, connectivity, health, density, safety, transit, and destination scores.

- Weighting:
- Safety: 3.9x
 - Connectivity: 3.5x
 - Equity: 3.3x
 - Transit: 3.1x
 - Destinations: 2.5x
 - Density: 1.5x
 - Health: 0.9x

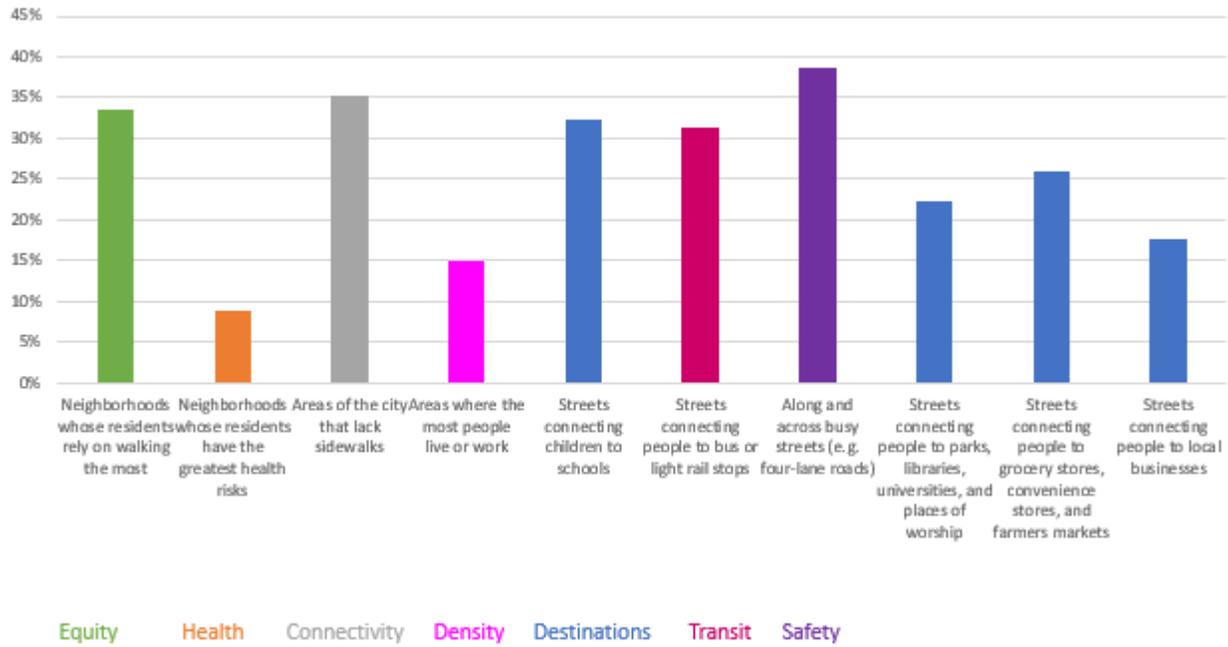


Map produced May 2018.



In this scenario, factors were weighted to reflect the results of the online survey. Respondents were asked to choose the top three locations where it is more important to improve walking. The location options roughly correspond to the prioritization categories. The weighting for each factor is the percentage of people who chose that factor, divided by ten for simplicity (for destinations, it is the average of the four factors). The chart on the following page shows the survey results and how the location options were connected to the prioritization categories.

Choose the top three locations where it is most important to you to improve walking



Weighting (from heaviest to lightest):

Safety: 3.9x

Connectivity: 3.5x

Equity: 3.3x

Transit: 3.1x

Destinations: 2.5x

Density: 1.5x

Health: 0.9x

Within destinations, schools were weighted most heavily, followed by grocery stores, parks, public buildings, universities, cultural institutions, hospitals, and neighborhood nodes.

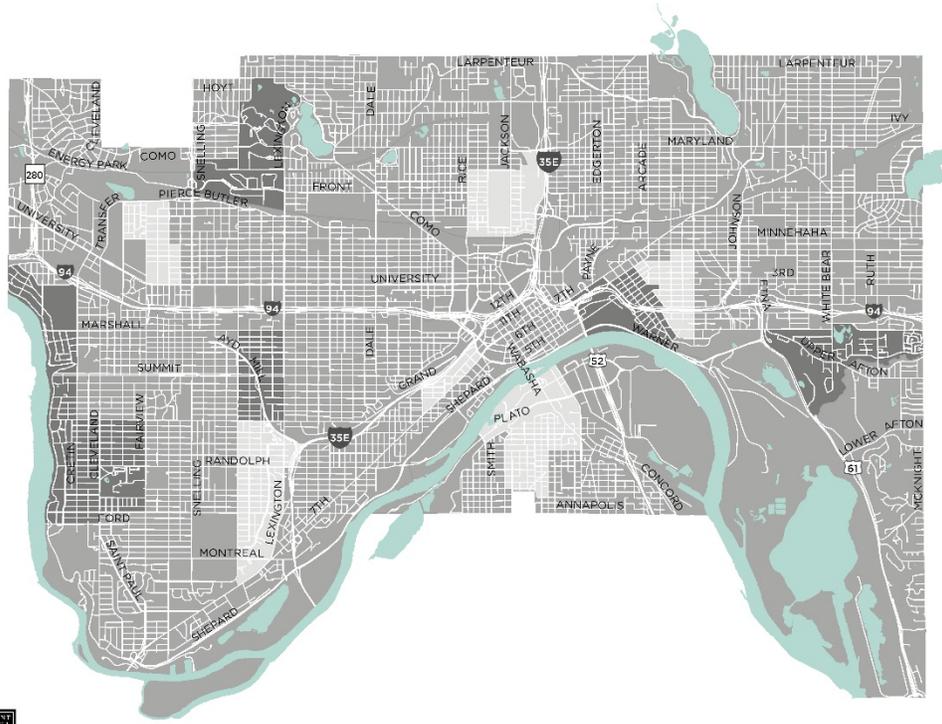
Notable changes from previous scenario:

**PRIORITIZATION
CRITERIA**
SAINT PAUL
PEDESTRIAN PLAN

DRAFT: 5.8.18

Priority Level Change
(Model 1 to Model 2)

-  Dropped by one level
-  Stayed the same
-  Increased by one level



0 0.65 1.3 MILES

 Map produced May 2018.



Model 3: Survey weighting adjusted for supplemental outreach

DRAFT: 5.8.18

PRIORITIZATION CRITERIA

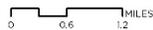
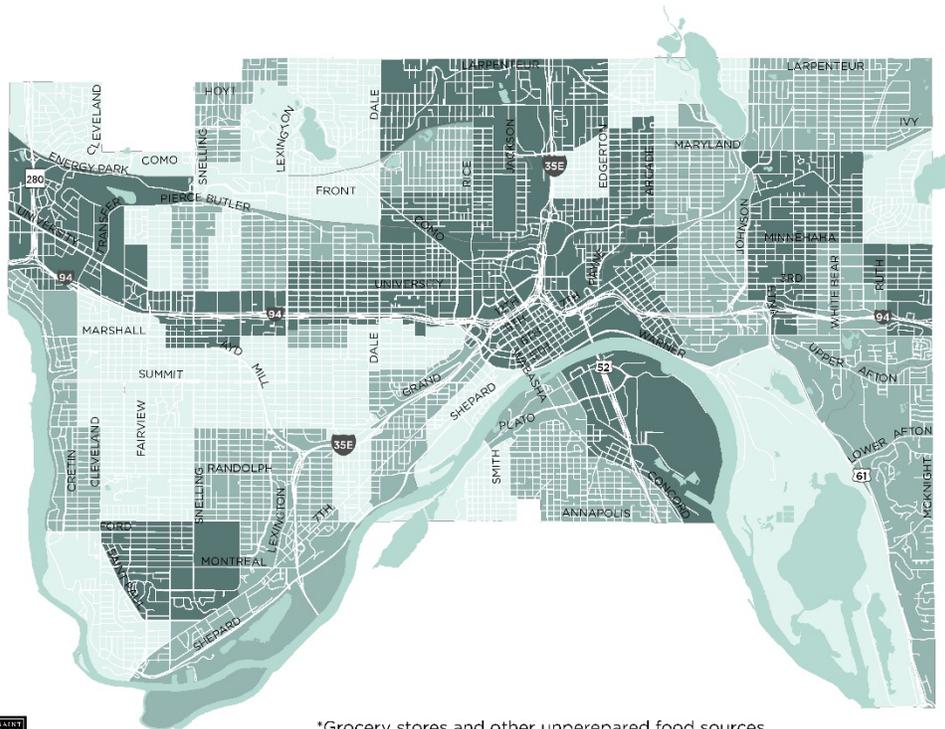
SAINT PAUL PEDESTRIAN PLAN

Priority Level (Model 3: Survey Adjusted Weighting)



The Total Score combines the equity, connectivity, health, density, safety, transit, and destination scores.

Weighting:
 Equity: 4x
 Safety: 4x
 Destinations*: 3.5x
 Connectivity: 3x
 Transit: 3x
 Health: 2x
 Density: 1x



Map produced May 2018.



*Grocery stores and other unprepared food sources weighted twice as heavily as other destinations.



In this scenario, the survey weighting was adjusted to account for demographic discrepancies between the survey respondents and the population of Saint Paul as a whole. People of color, young people, people identifying as male, and people with low incomes were underrepresented in the survey relative to their share of the city's population. The weighting was adjusted to reflect the preferences of these underrepresented groups, as shared in the survey and in targeted in-person outreach to these groups.

Weighting (from heaviest to lightest):

Equity: 4x

Safety: 4x

Destinations: 3.5x

Connectivity: 3x

Transit: 3x

Health: 2x

Density: 1x

Within destinations, grocery stores/corner stores/food shelves/farmers markets were given twice as much weight as other destinations to reflect the need to support food access for people with low-incomes.

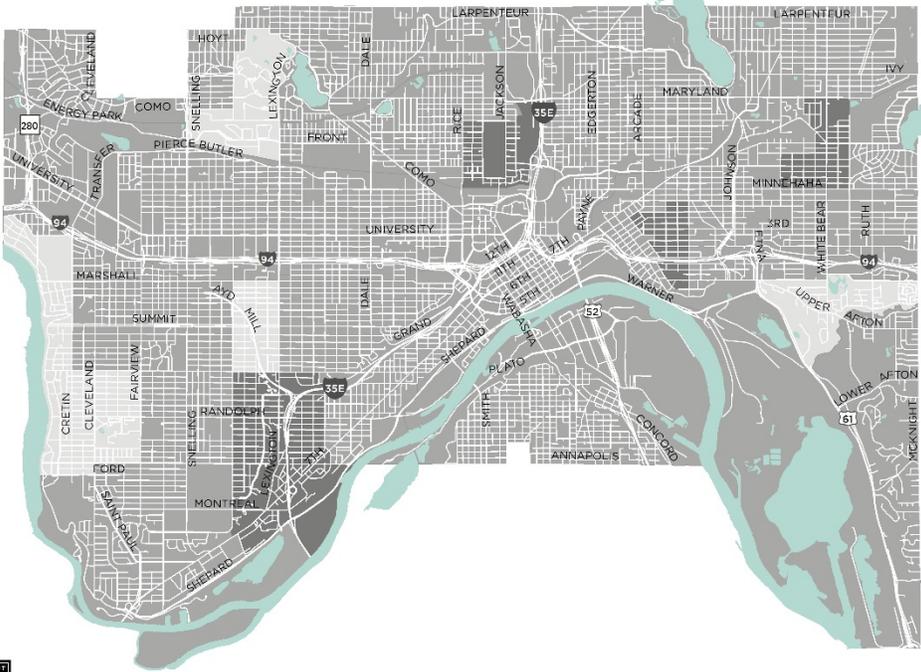
Notable changes from previous scenario:

**PRIORITIZATION
CRITERIA**
SAINT PAUL
PEDESTRIAN PLAN

DRAFT: 5.8.18

Priority Level Change
(Model 2 to Model 3)

- Dropped by one level
- Stayed the same
- Increased by one level



0 0.65 1.3 MILES



Model 4: Survey weighting adjusted for supplemental outreach, with all ACP50 tracts included as high or medium priority

PRIORITIZATION CRITERIA

DRAFT: 5.8.18

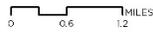
SAINT PAUL PEDESTRIAN PLAN

Priority Level (Model 4: Equity Adjusted Weighting)



The Total Score combines the equity, connectivity, health, density, safety, transit, and destination scores.

Weighting:
 Equity: 7x
 Safety: 4x
 Destinations*: 3.5x
 Connectivity: 3x
 Transit: 3x
 Health: 2x
 Density: 1x



*Grocery stores and other unprepared food sources weighted twice as heavily as other destinations.



In this scenario, the equity weighting was adjusted upward until all long-term ACP50 tracts (tracts that have been ACP50 tracts for 6 or 7 out of 7 years) were in the middle or top third of census tracts. This weighting reflects the city's overriding concern with equity and proactively addressing current and historical disinvestment in communities most likely to rely on walking to meet daily needs.

Weighting (from heaviest to lightest):

Equity: 7x

Safety: 4x

Destinations: 3.5x

Connectivity: 3x

Transit: 3x

Health: 2x

Density: 1x

Within destinations, grocery stores/corner stores/food shelves/farmers markets were given twice as much weight as other destinations to reflect the need to support food access for people with low-incomes.

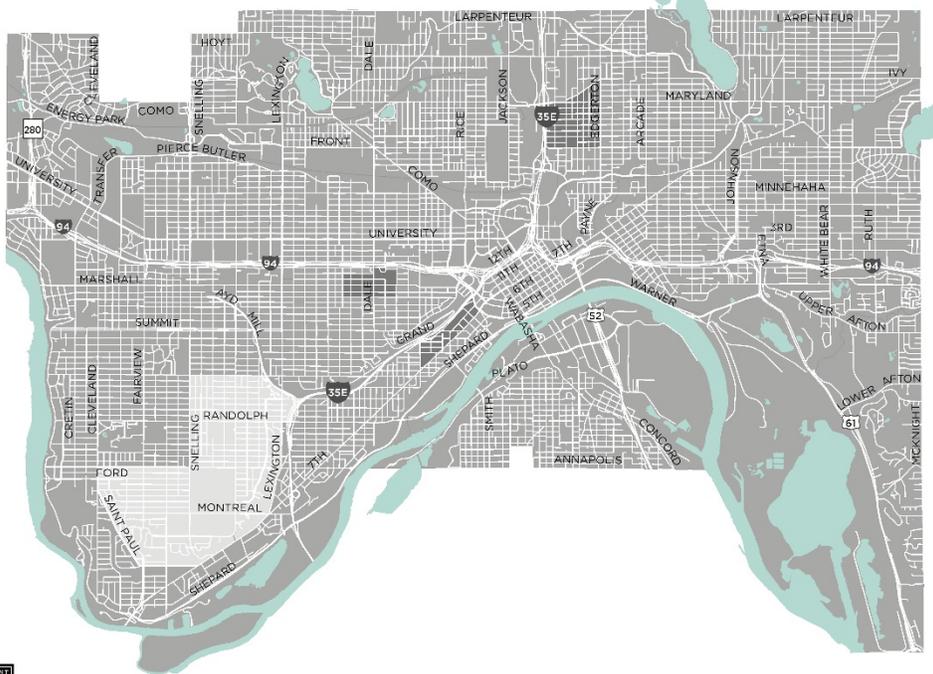
Notable changes from previous scenario:

**PRIORITIZATION
CRITERIA**
SAINT PAUL
PEDESTRIAN PLAN

DRAFT: 5.8.18

Priority Level Change
(Model 3 to Model 4)

-  Dropped by one level
-  Stayed the same
-  Increased by one level



0 0.65 1.3 MILES

 Map produced May 2018.



Prioritization Metadata

Field names and formulas included for GIS use.

PRIORITY	MEASURE	SOURCE	DATA STANDARDIZATION	FIELD NAME
Equity [Equity]= ([ACP50_Sc_1]+ [Vehicle_Sc]+ [Dis_Sc])/3	Areas of Concentrated Poverty where 50% or more of residents are people of color (ACP50)	Metropolitan Council (2017)	Number of years census tract was an ACP50 tract from 2010-2016 <i>Low=0, Medium=1-5, High=6-7</i>	Score: ACP_Sc
	Disability	American Community Survey (2016)	Percent of residents living with a disability per census tract <i>Classified by standard deviation</i>	Raw: Dis_Per Standard Deviation (SD): Dis_SD Score: Dis_Sc
	Vehicle ownership	American Community Survey (2016)	Percent of households with no vehicles per census tract <i>Classified by standard deviation</i>	Raw: HHNoVehPer SD: Vehicle_SD Score: Vehicle_Sc
Safety [Safety]= ([CrshPJ_Sc] +[PrioritySc])/2	Pedestrian involved crashes (2013-2017)	MnDOT: 2013-2015 Saint Paul Police Department: 2016-2017	Collisions per total residents and employees <i>Classified by standard deviation</i>	Raw: CrshPopJob SD: CrshPJ_SD Score: CrshPJ_Sc
	Priority roadways for safety improvements	Provided by City of Saint Paul	Miles of prioritized roads per census tract <i>Note: The Saint Paul Roadway Safety shapefile provided by the City included only City-owned roadways. We added roadways with more than two traffic lanes to the shapefile to capture all high-risk roadways.</i> <i>Classified by standard deviation</i>	Raw: PriorityMi SD: PrioritySD Score: PrioritySc

PRIORITY	MEASURE	SOURCE	DATA STANDARDIZATION	FIELD NAME
Connectivity [Connectivi] =[Sdwk_Sc]	Gaps in sidewalk network	Provided by City of Saint Paul	Linear miles of sidewalks compared to miles of streets per census tract <i>Classified by standard deviation</i>	Raw: SdwkToSt SD: Sdwk_SD Score: Sdwk_Sc
Health [Health] = ((Obese_Sc)+ [CHD_Sc]+ [Asthma_Sc]+ [Diab_Sc])/4	Obesity	Centers for Disease Control and Prevention 500 Cities Project (2015)	Percent of adults considered obese per census tract <i>Classified by standard deviation</i>	Raw: Obese_Rt SD: Obese_SD Score: Obese_Sc
	Heart disease	Centers for Disease Control and Prevention 500 Cities Project (2015)	Percent of adults with heart disease per census tract <i>Classified by standard deviation</i>	Raw: CHD_Rt SD: CHD_SD Score: CHD_Sc
	Asthma	Centers for Disease Control and Prevention 500 Cities Project (2015)	Percent of adults with asthma per census tract <i>Classified by standard deviation</i>	Raw: Asthma_Rt SD: Asthma_SD Score: Asthma_Sc
	Diabetes	Centers for Disease Control and Prevention 500 Cities Project (2015)	Percent of adults with diabetes per census tract <i>Classified by standard deviation</i>	Raw: Diab_Rt SD: Diab_SD Score: Diab_Sc
Population and Employment Density [Density]= ((PopDens_Sc)+ [EmpDens_Sc])/2	Population density	American Community Survey (2016)	People per acre per census tract <i>Classified by standard deviation</i>	Raw: Pop_Dens SD: PopDens_SD Score: PopDens_Sc
	Employment density	American Community Survey (2016)	Workers per acre per census tract <i>Classified by standard deviation</i>	Raw: Emp_Dens SD: EmpDens_SD Score: EmpDens_Sc
Destinations [Destinatio]= ([School_Sc]+ [Univ_Sc]+ [Parks_Sc]+ [Food_Sc]+ [Node_Sc]+ [PubInst_Sc])/6	Schools	Provided by City of Saint Paul	Number of destinations per census tract <i>Classified by standard deviation</i>	Raw: Sum_School SD: School_SD Score: School_Sc
	Universities	Provided by City of Saint Paul	Number of destinations per census tract <i>Classified by standard deviation</i>	Raw: Sum_Univ Score: Univ_Sc (one university =2, no universities=0)

Saint Paul Pedestrian Plan

PRIORITY	MEASURE	SOURCE	DATA STANDARDIZATION	FIELD NAME
Destinations-Grocery Store weighting $\frac{[\text{Destinat2}] + ([\text{School_Sc}] + [\text{Univ_Sc}] + [\text{Parks_Sc}] + [\text{Food_Sc}] * 2 + [\text{Node_Sc}] + [\text{PubInst_Sc}])}{7}$	Public Buildings (City, County, Hospitals, Cultural Institutions)	Provided by City of Saint Paul	Number of destinations per census tract <i>Classified by standard deviation</i>	Raw: Sum_PubBld SD: PubBld_SD Score: PubBld_Sc
	Parks	Provided by City of Saint Paul	Number of Parks per census tract <i>Classified by standard deviation</i>	Raw: Parks SD: Parks_SD Score: Parks_Sc
	Grocery Stores, Cornerstores, Farmers Markets, Food Shelves	Provided by City of Saint Paul	Number of destinations per census tract <i>Classified by standard deviation</i>	Raw: Food SD: Food_SD Score: Food_Sc
	Neighborhood Nodes	Provided by City of Saint Paul	Acres of census tract within a 5 minute walk of one or more neighborhood nodes <i>Classified by standard deviation</i>	Raw: NodeArea SD: Node_SD Score: Node_Sc
Transit access $[\text{Transit_Sc}]$	Transit access	Metrotransit (2018)	Transit stops per census tract weighted by number of routes serving each stop (transit stops intersected with routes so there is a point for every route that intersects with a transit stop) <i>Classified by standard deviation</i>	Raw: BusStpXRte SD: Transit_SD Score: Transit_Sc

Composite Prioritization Weighting Options

MODEL	FORMULA	FIELD NAME
1: Equal weights	[Equity]+ [Connectivi]+ [Safety]+[Transit_Sc]+ [Destinatio]+ [Health]+ [Density]	TotalScore
2: Survey weights	[Equity]*3.3+ [Connectivi]*3.5+ [Safety]*3.9+ [Transit_Sc]*3.1+ [Destinatio]*2.5+ [Health]*0.9+ [Density]*1.5	TotalPubWt
3: Survey adjusted weights	[Equity]*4+ [Connectivi]*3+ [Safety]*4+ [Transit_Sc]*3+ [Destinat2]*3.5+ [Health]*2+ [Density]*1	TotalPbWt2
4: Survey adjusted weights- Equity heavy	[Equity]*6+ [Connectivi]*3+ [Safety]*4+ [Transit_Sc]*3+ [Destinat2]*3.5+ [Health]*2+ [Density]*1	TotalEqWt