

Examining the Impacts of

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# NORTHSIDE ACHIEVEMENT ZONE



MACALESTER COLLEGE

GEOG 365: Urban GIS Seminar

April 21, 2016



# PROJECT GOALS

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- Produce visualizations that support a compelling narrative about the need for the impact of a place-based initiative on the Northside.
- What has been the comprehensive impact of the Northside Achievement Zone (NAZ) program on the Northside community (so far)?
  - ◆ Spatial differences
  - ◆ Temporal differences



# THEMES

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Population

Housing

Economics

Health

# DATA SOURCES

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## National

U.S. Census Bureau

U.S. American Community Survey (ACS)

U.S. Department of Agriculture

U.S. Department of Housing and Urban Development (HUD)

American Housing Survey

National Historic GIS (NHGIS)

OnTheMap

TIGER Data

Dun & Bradstreet

ESRI Consumer Expenditure

## State

Minnesota Secretary of State

Minnesota Compass

## Local

City of Minneapolis

Open Data MPLS

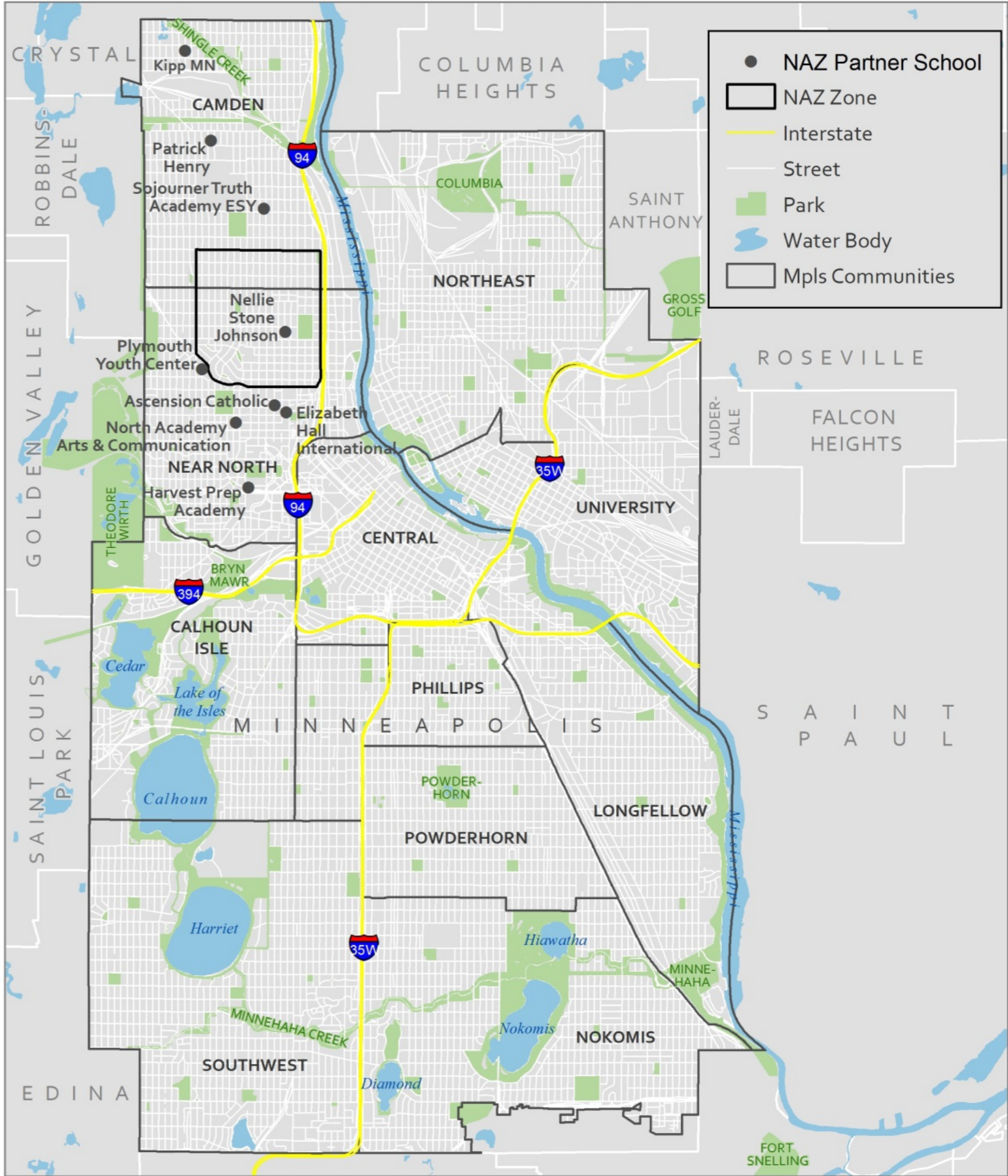
Metropolitan Council

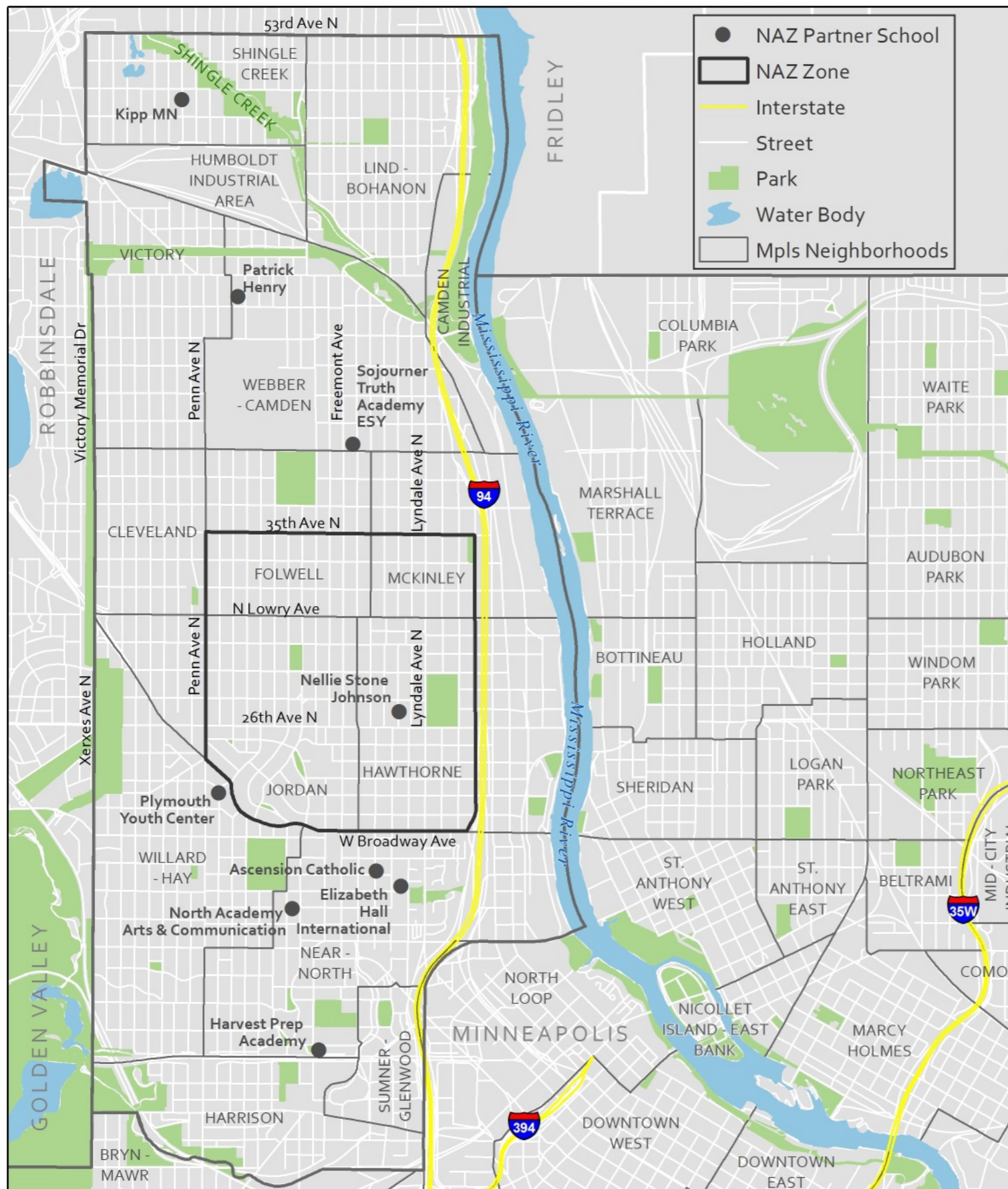
Metro GIS

Northside Achievement Zone

Gardening Matters

# MINNEAPOLIS COMMUNITIES AND NORTHSIDE ACHIEVEMENT ZONE



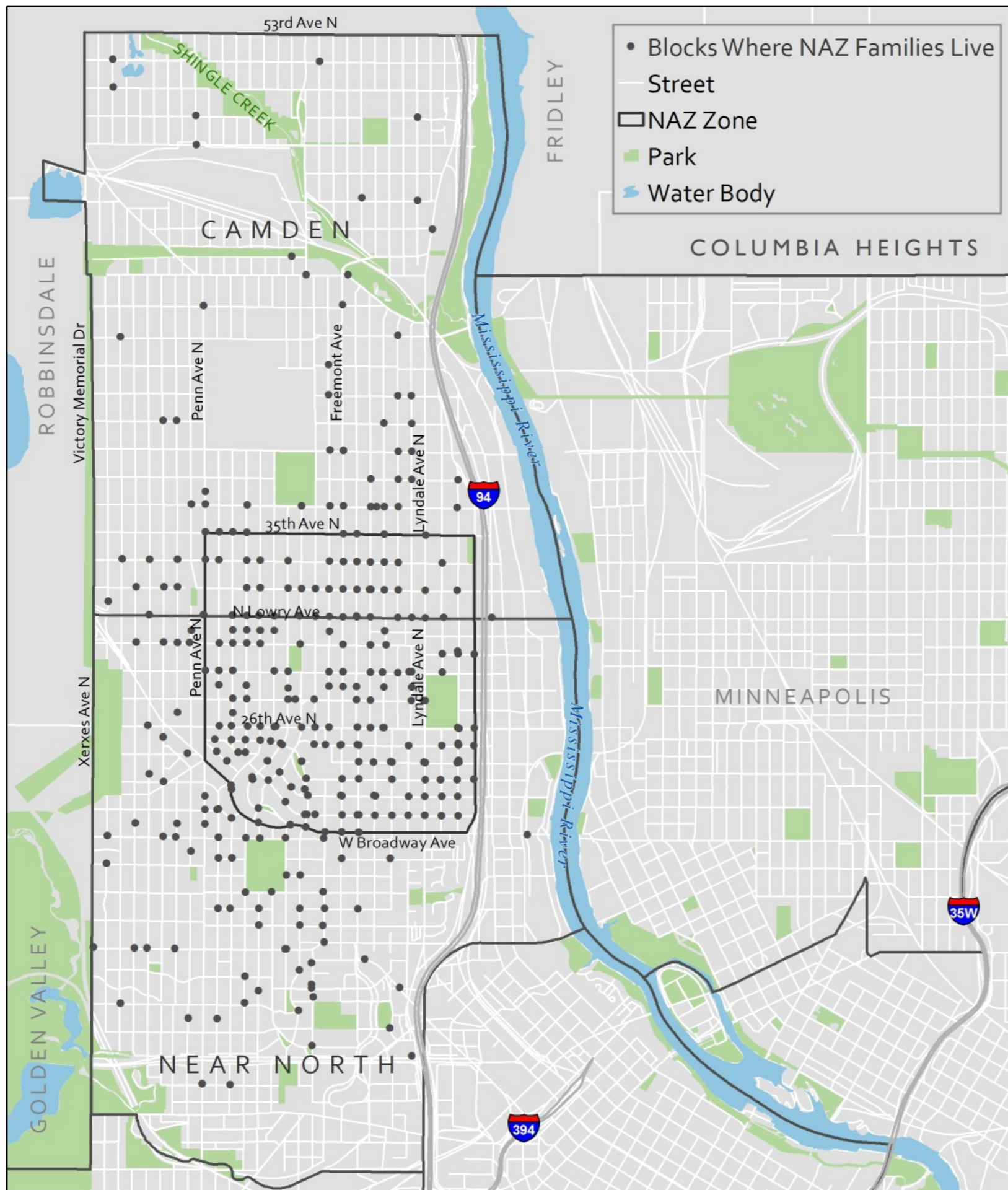


# THE NORTHSIDE AND NAZ PARTNER SCHOOLS

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Defined as all neighborhoods within the Near North and Camden communities.

# NAZ PROGRAM PARTICIPANTS



Locations of program participant residences



# POPULATION

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Zach Hauser, Nate Merrill, Daniel Swanson-Nystrom



# RESEARCH QUESTIONS

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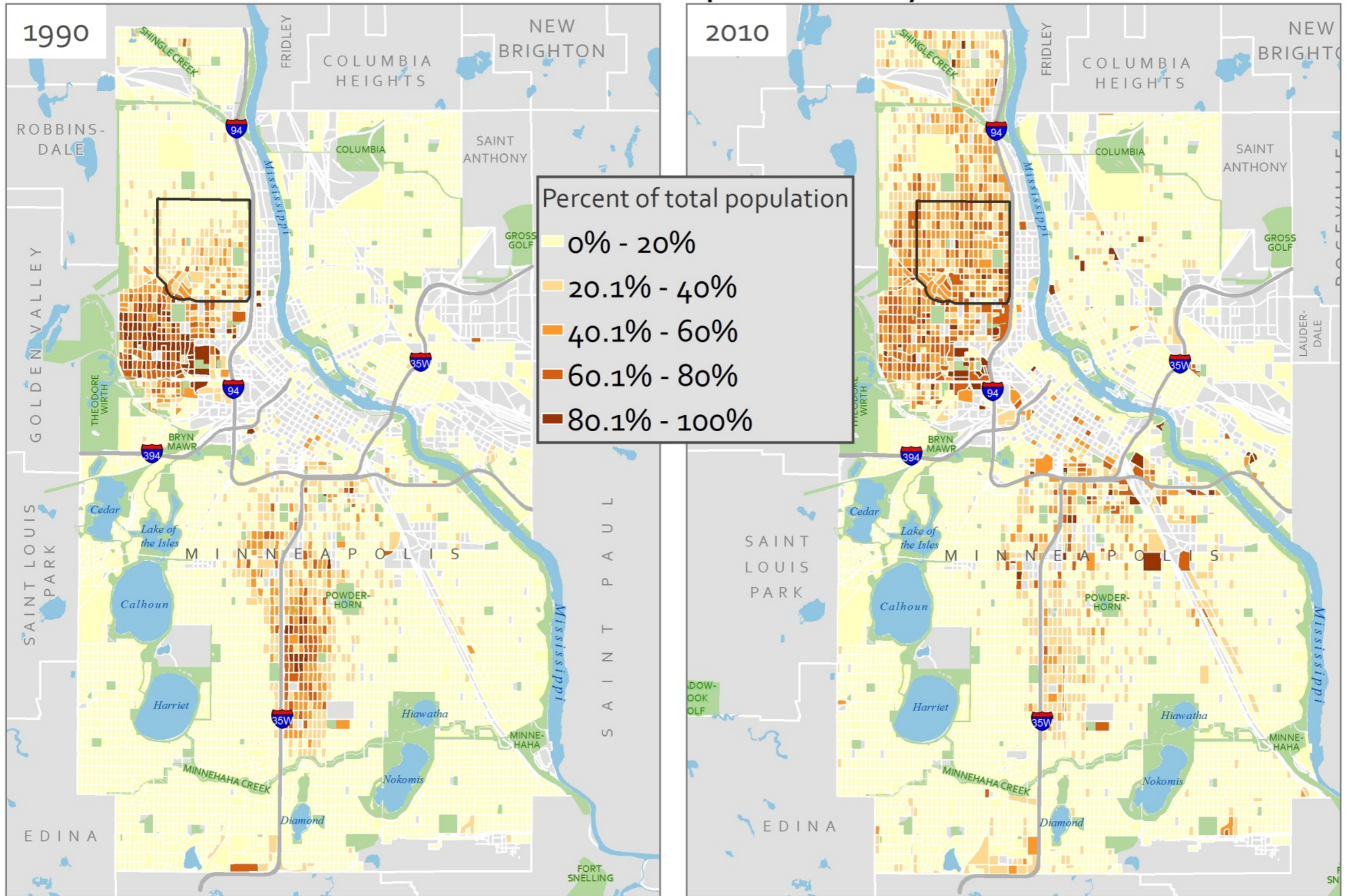
- How do the demographics of the Northside Achievement Zone compare to the surrounding areas?
- How has the Northside changed over time, and how do these changes compare to Minneapolis as a whole?

# VARIABLES

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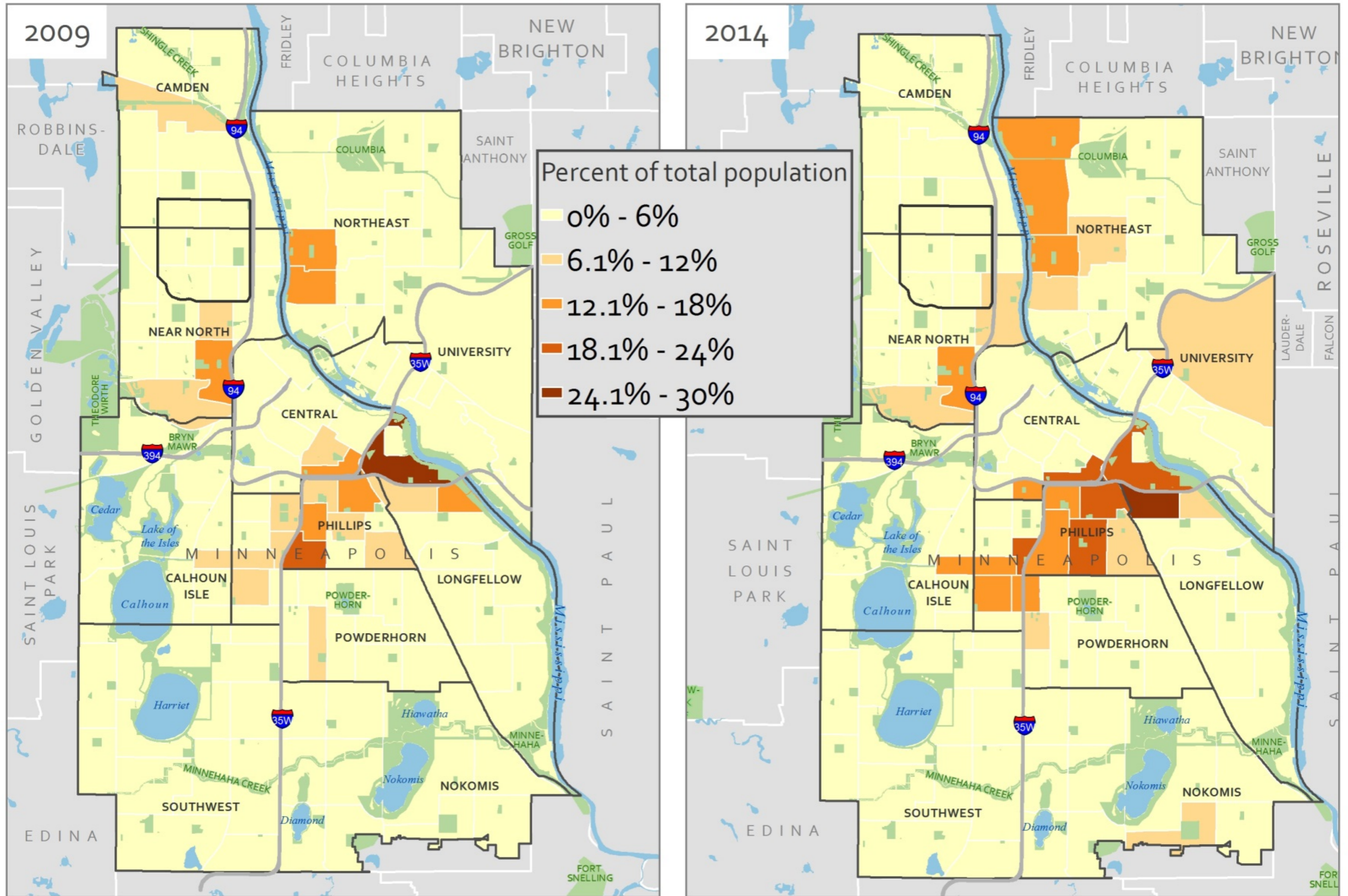
- Demographics
  - ◆ Race
  - ◆ Age
  - ◆ Ethnicity
- Voter Turnout
- Family Characteristics
  - ◆ Heads of household
  - ◆ Family size

# African American Population by Block



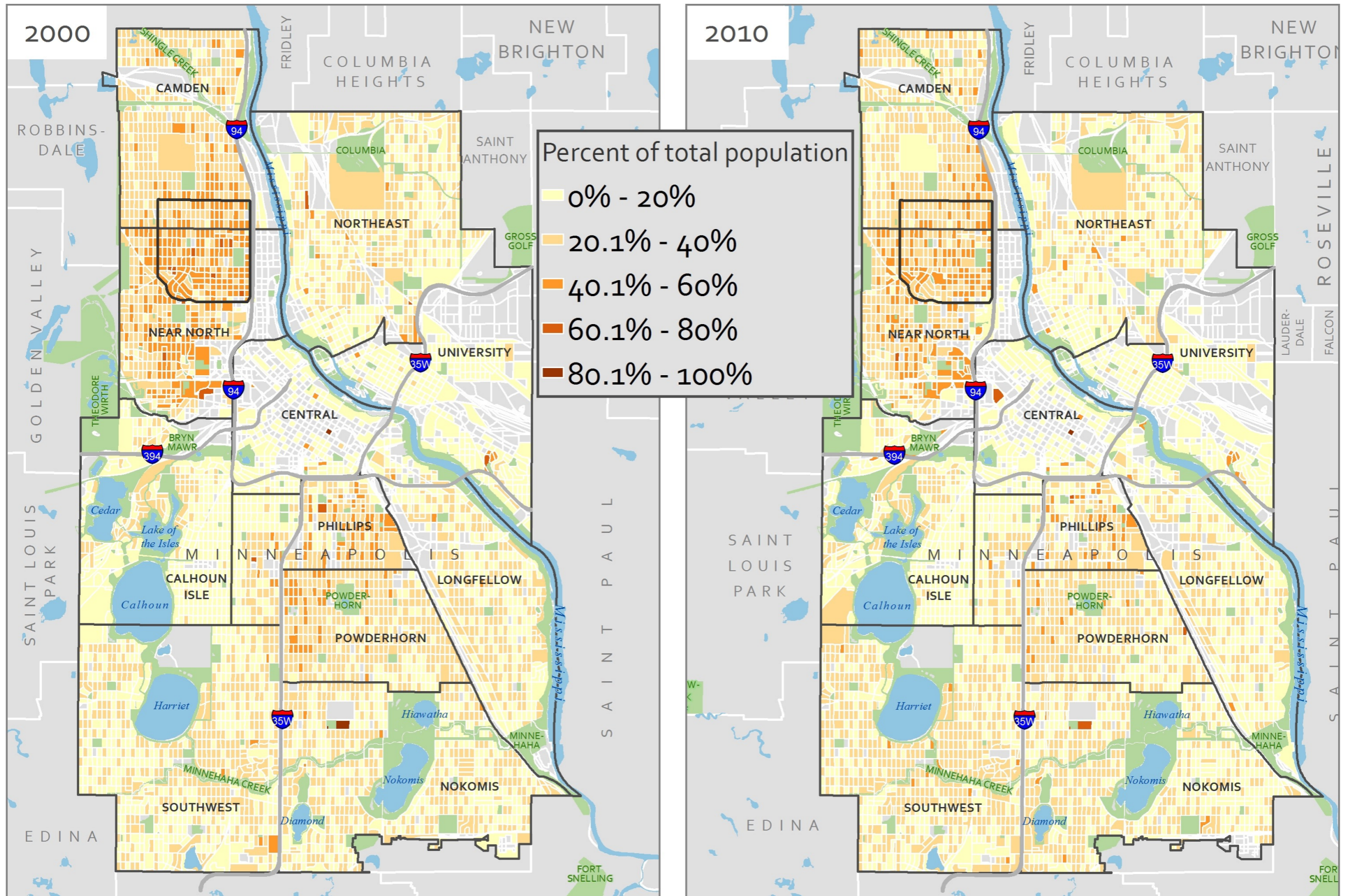
The African American population has moved over the past 30 years towards the Northside and NAZ area.

# Somali Population by Census Tract



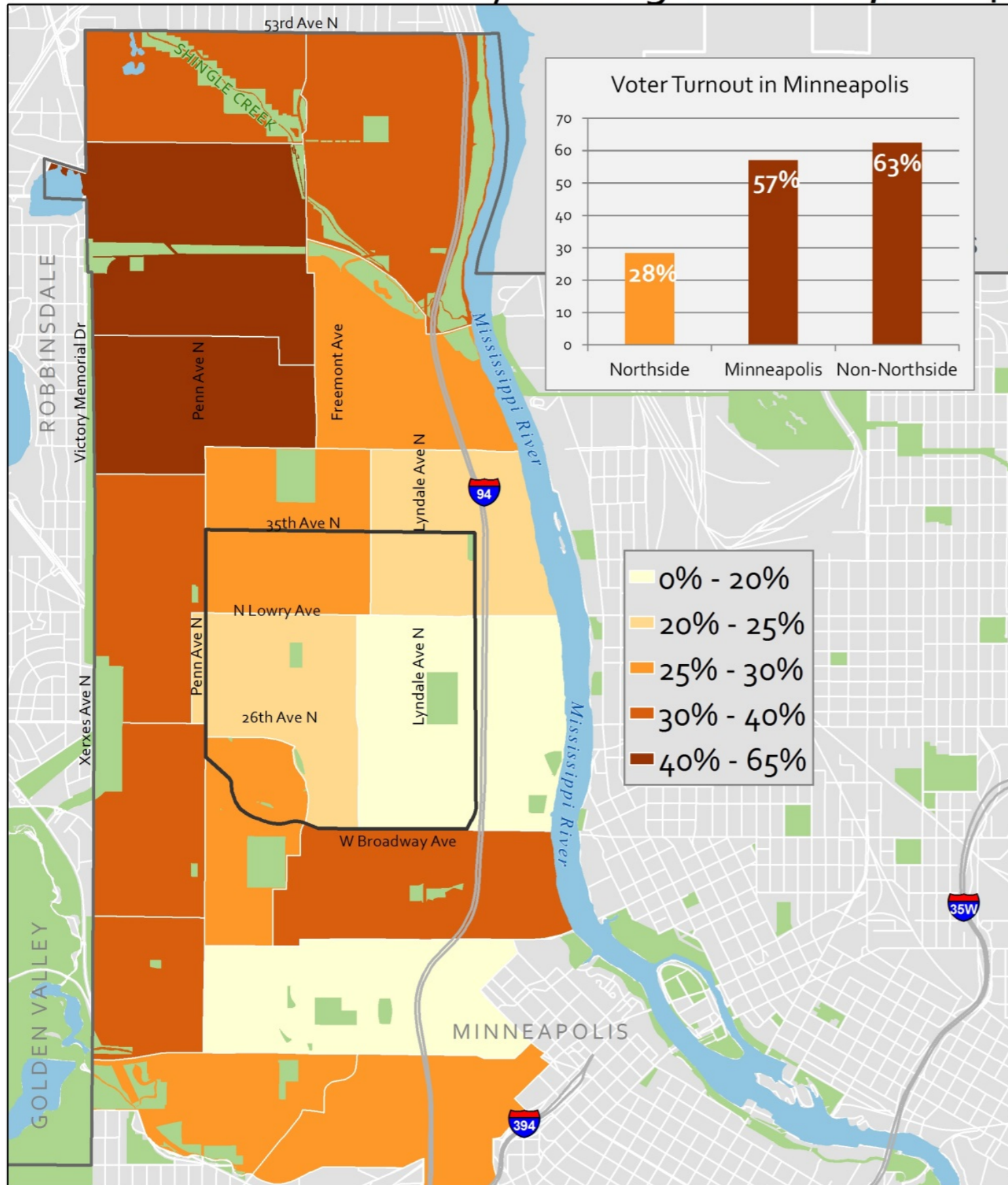
The Somali population has increased in the downtown Minneapolis area and moved into Northeast Minneapolis in recent years.

# Percent 0-18 Year Old Population by Block



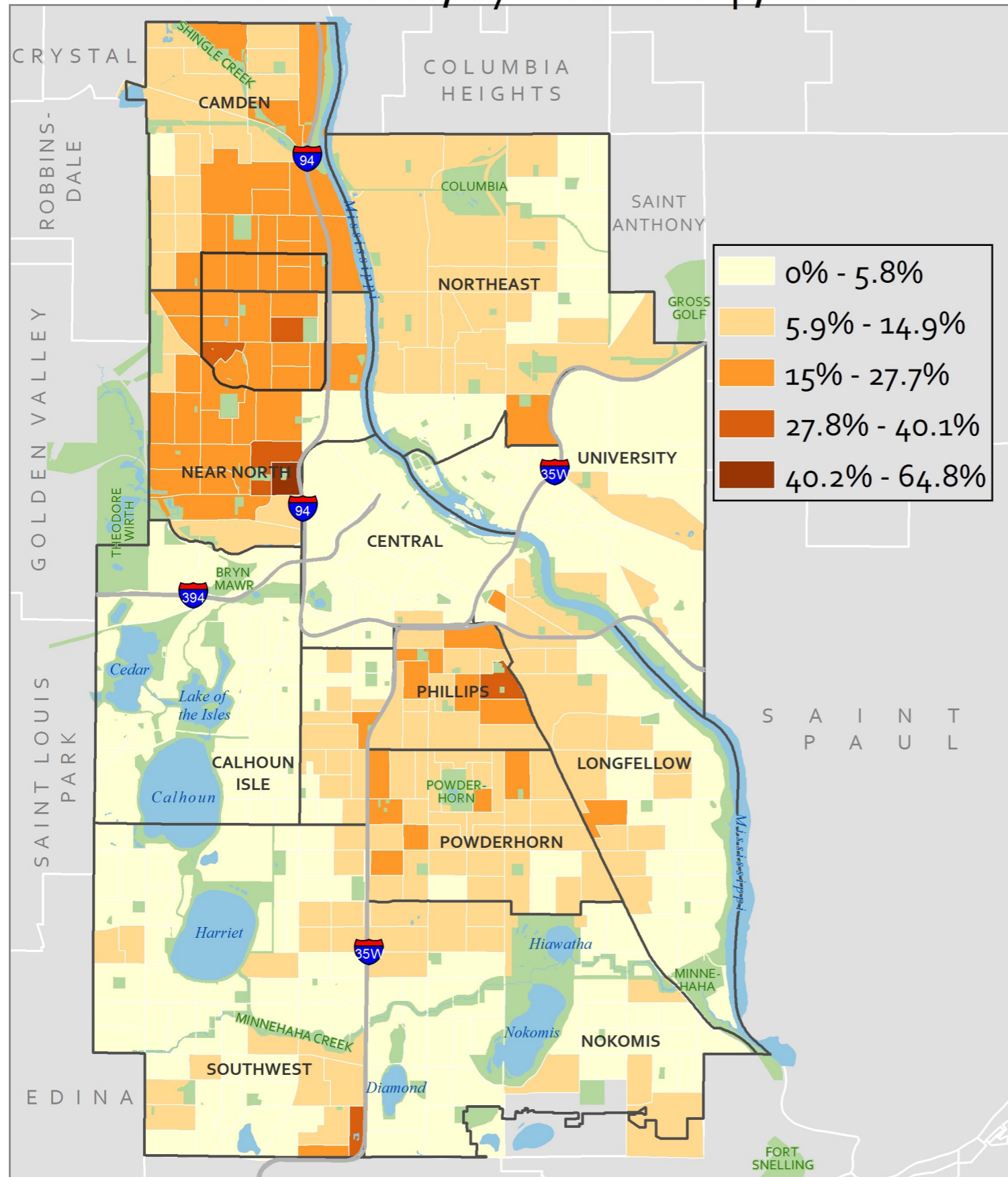
The youth population proportion in the Northside has visibly decreased but remains more concentrated than the rest of Minneapolis.

# Percent Turnout of Voting Age Population in Midterm Election by Voting Precinct, 2014



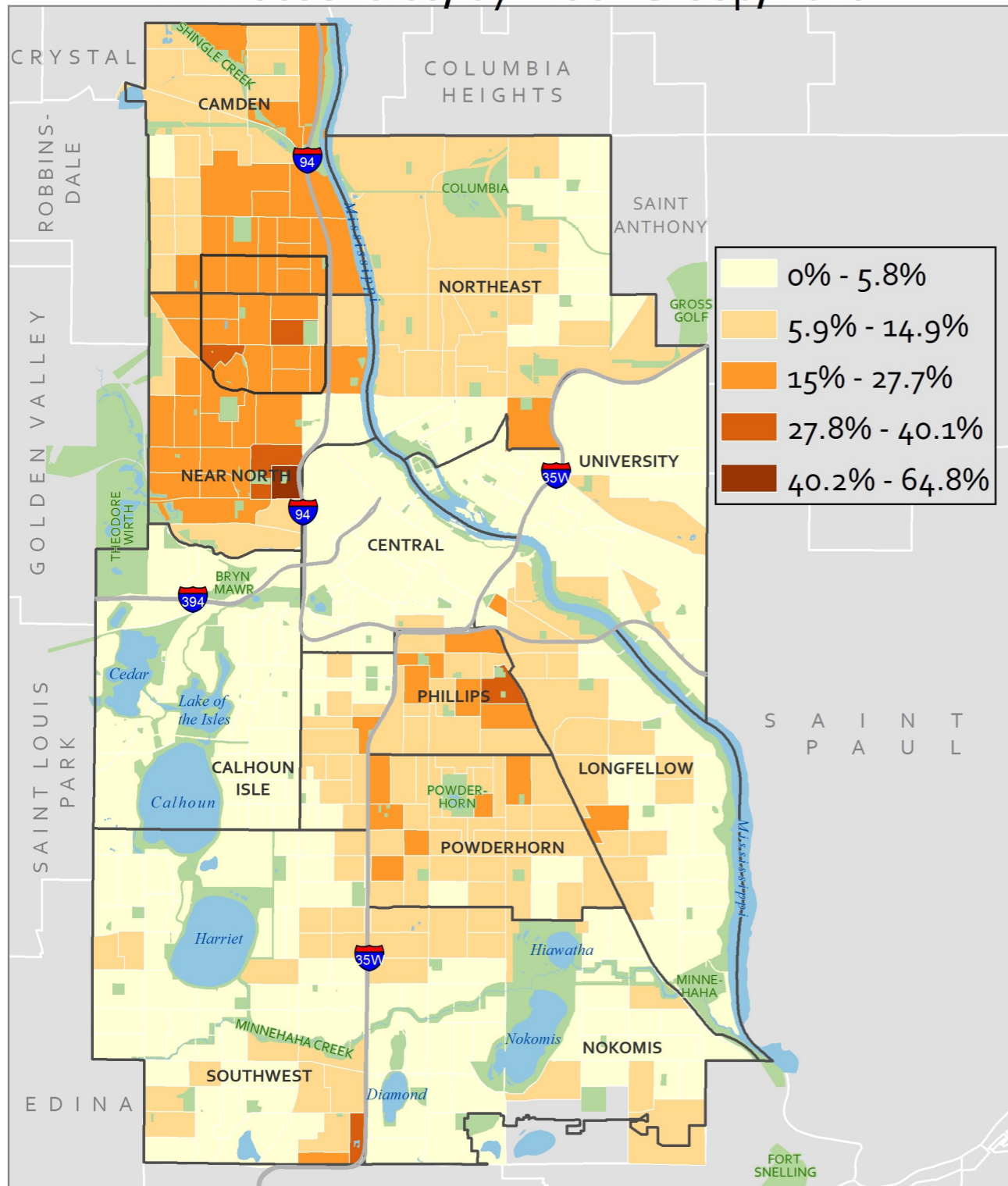
Voter turnout on the Minneapolis Northside in 2014 was around half that of the rest of the city and slightly lower than the national average, while within the Northside the areas with lower turnout correlate to a higher black population.

# Female Householders with Children as a Percent of All Households, by Block Group, 2010

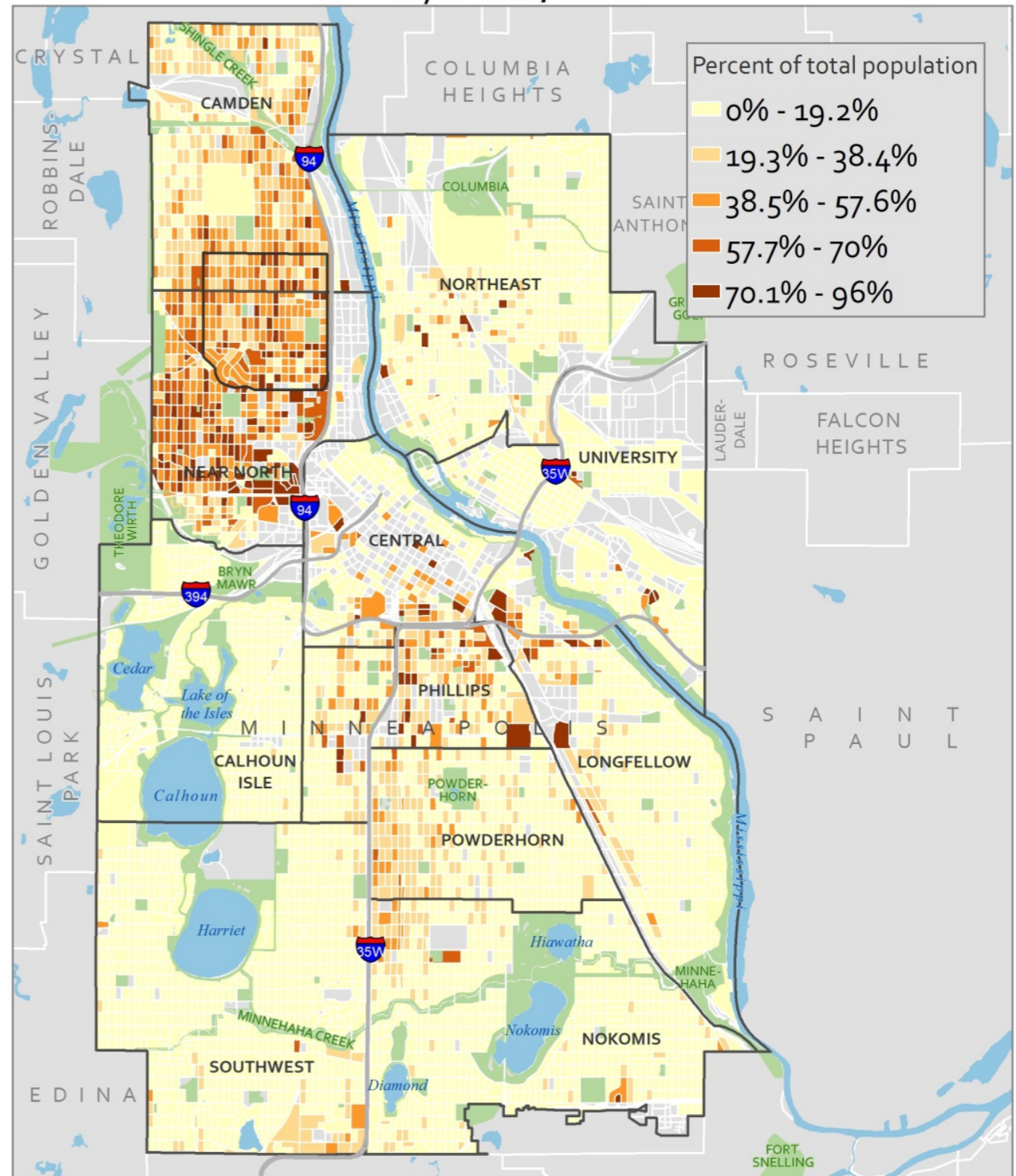


By 2010, the greatest concentration of families headed by single mothers is in the Northside, while secondary clusters are still present in Phillips, Powderhorn, and Northeast.

Female Householders with Children as a Percent of All Households, by Block Group, 2010



African American Population by Block, 2010



The 2010 patterns of African American population and female householders with children are very similar in nature.



# CONCLUSIONS

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- The African American population has been concentrated in the Northside since before 1990; this pattern has intensified since 1990.
- The Somali population has had an increased presence in the downtown Minneapolis area since 2009.
- The youth population has kept a concentrated presence in the Northside since at least 2000.
- Voter turnout is lower on the Northside than in the rest of the city and is especially low during non-presidential elections.
- Single mothers in Minneapolis are concentrated in the Northside, as well as the Phillips/Powderhorn communities, and have been since at least 1990.

# RECOMMENDATIONS

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- If trends continue, the African American population will further concentrate in the Northside.
- NAZ's goals of providing services for children can be positively impacted through these findings.
- Examine and understand the factors that discourage or prevent voting on the individual level.



# HOUSING

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Katelyn Kack, Ben Vargo, Hannah Bonestroo, Joe Klein

# RESEARCH QUESTIONS

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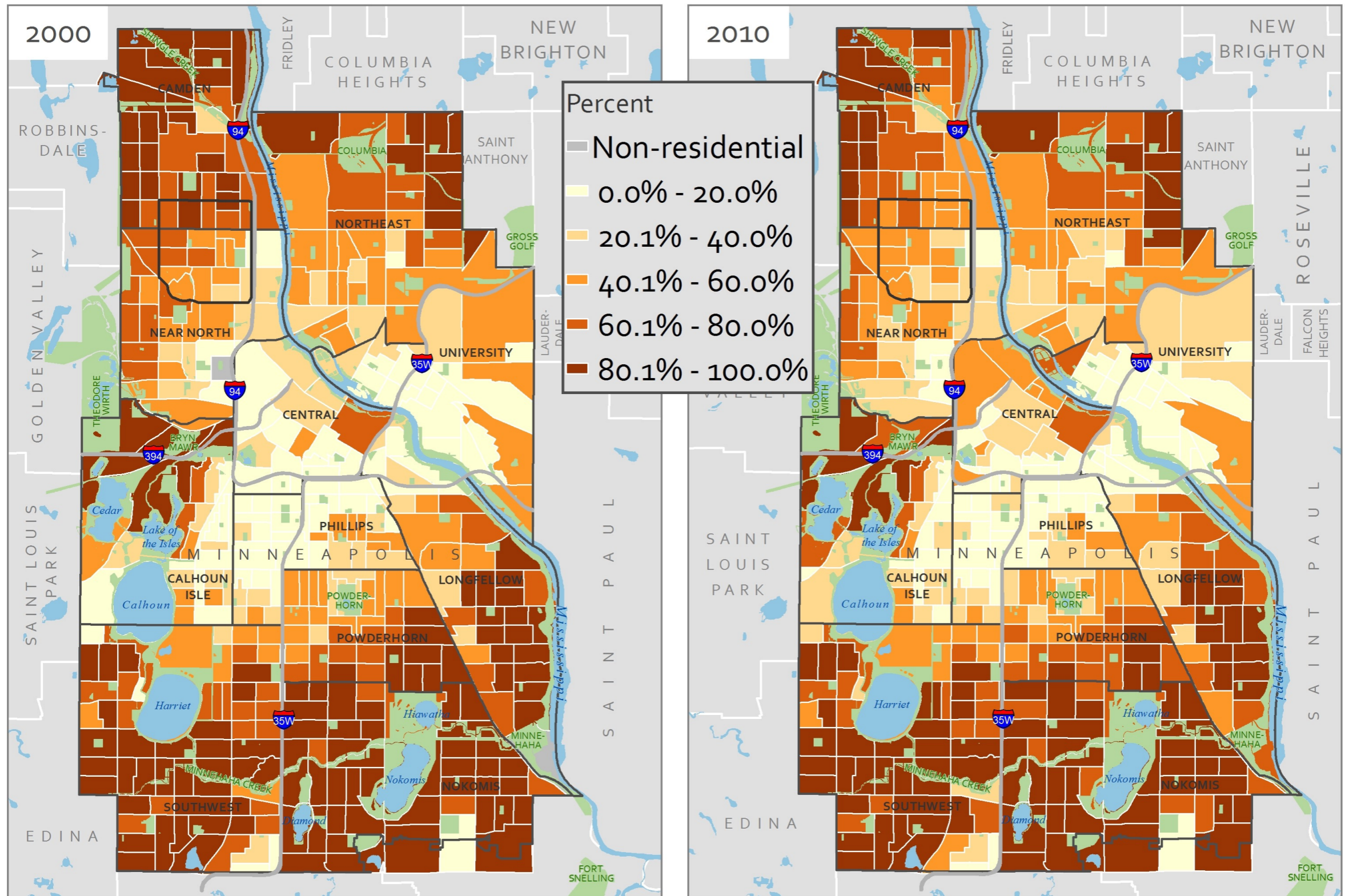
- In what ways does the housing of the Northside assist or hinder the work of the Northside Achievement Zone?
  - ◆ Historically and currently
  - ◆ Overall assessment

# VARIABLES

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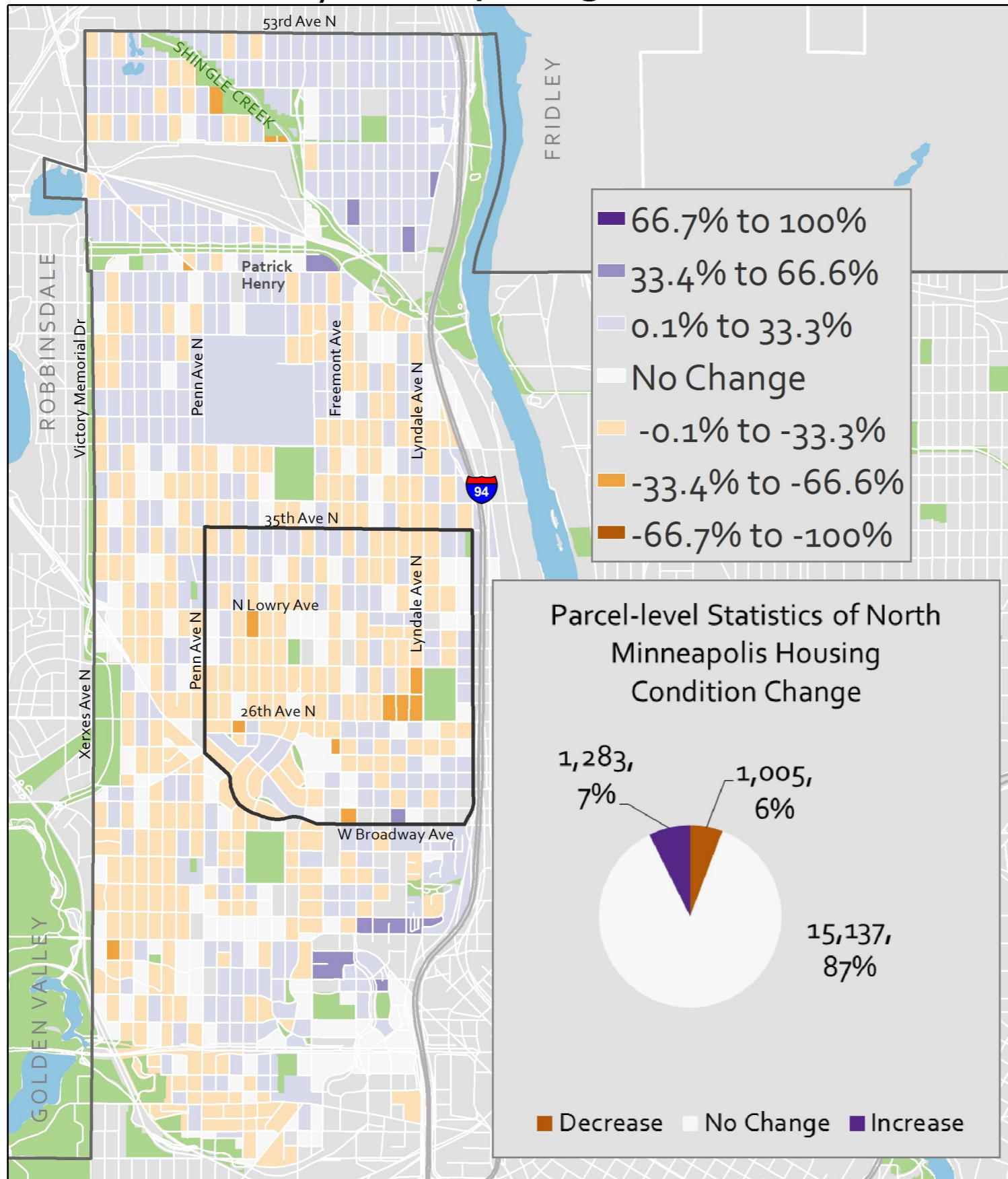
- Renter versus owner-occupied housing
- Foreclosures and mortgage rates
- Vacancies
- “Absentee” landlords
- Housing Condition
- Property Value

# Percent of Housing Units that are Owner-Occupied by Block Group



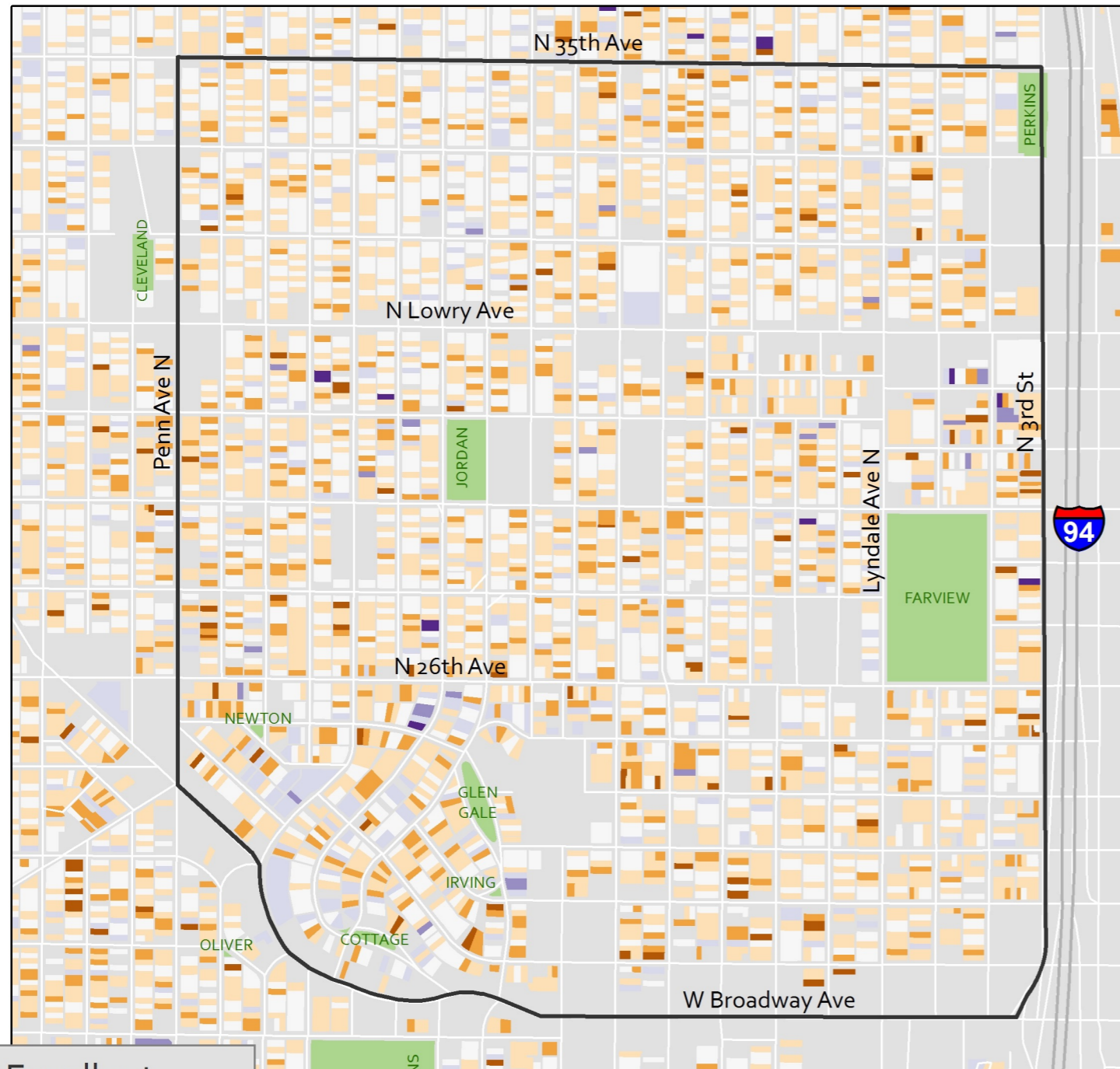
The percent of owner-occupied housing units decreased from 2000-2010, particularly in the Northside. In 2000, the Northside had 38 block groups that were between 60.1% to 100.0% owner-occupied. By 2010, that number had declined to 25 block groups.

# Percent Change in Housing Condition by Block, 2013 - 2016

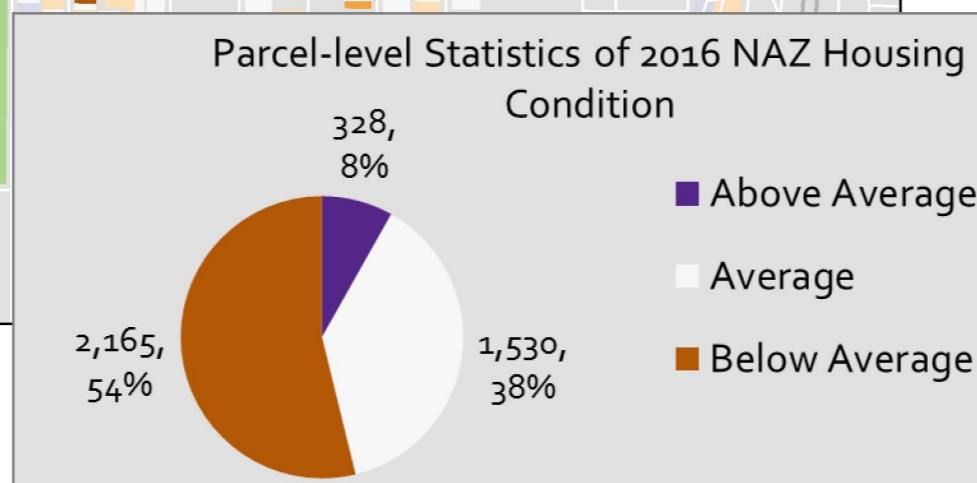
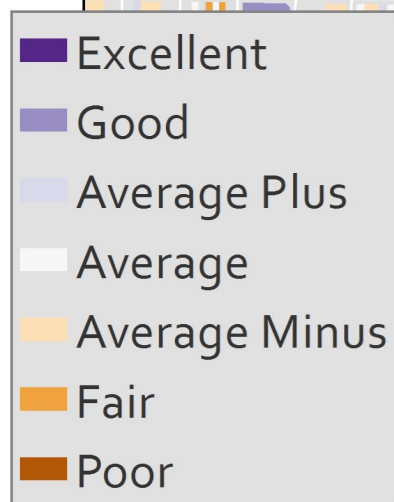


Shows roughly equal change in housing conditions between 2013 and 2016: 6% of housing increased in rating, and 7% decreased. However, most housing conditions within NAZ decreased, while the increases in conditions were experienced north and south of NAZ.

# Housing Condition by Parcel, 2016

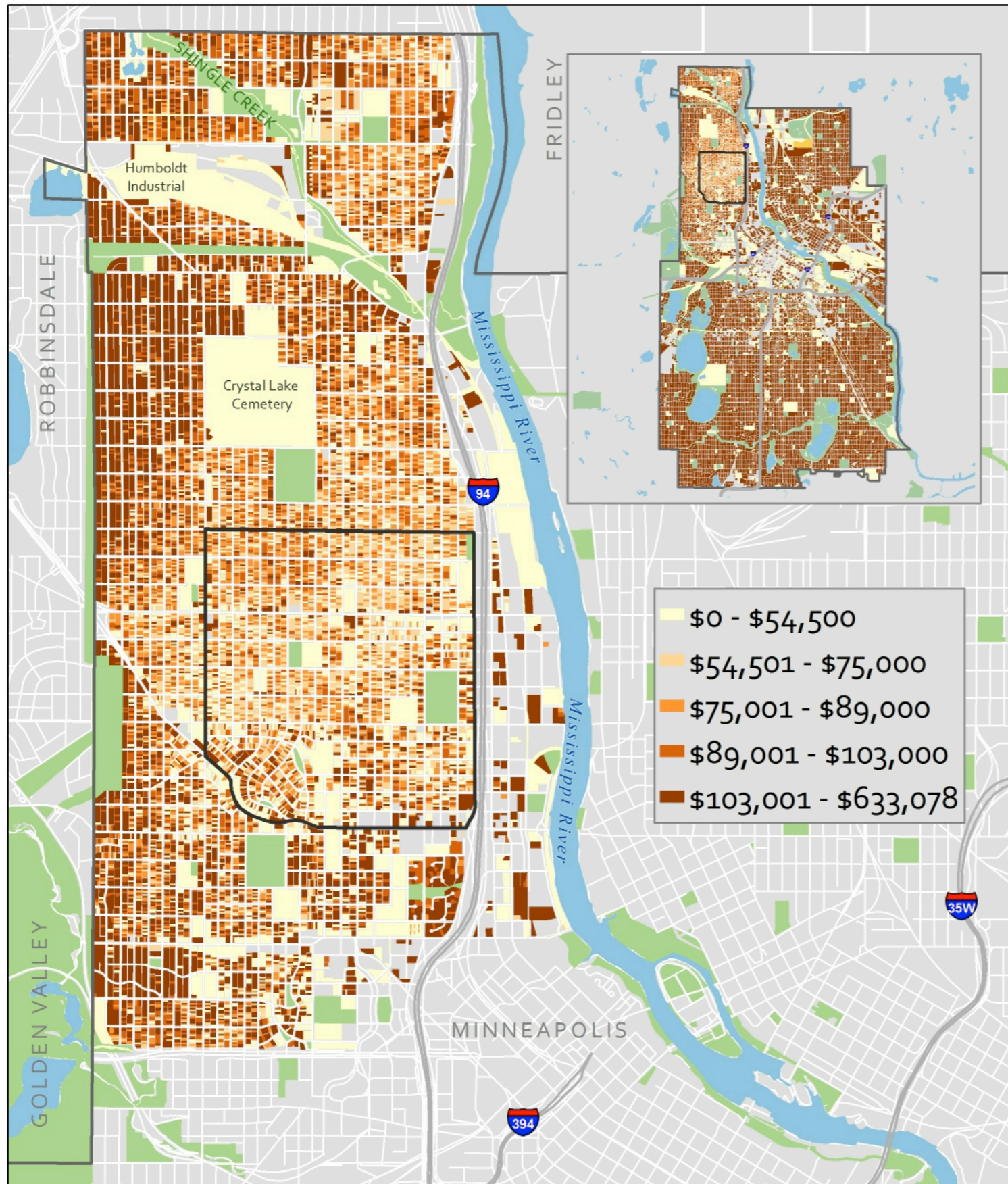


Within the NAZ, 54% of housing is of below-average condition, relative to the overall Minneapolis rate of 22%.



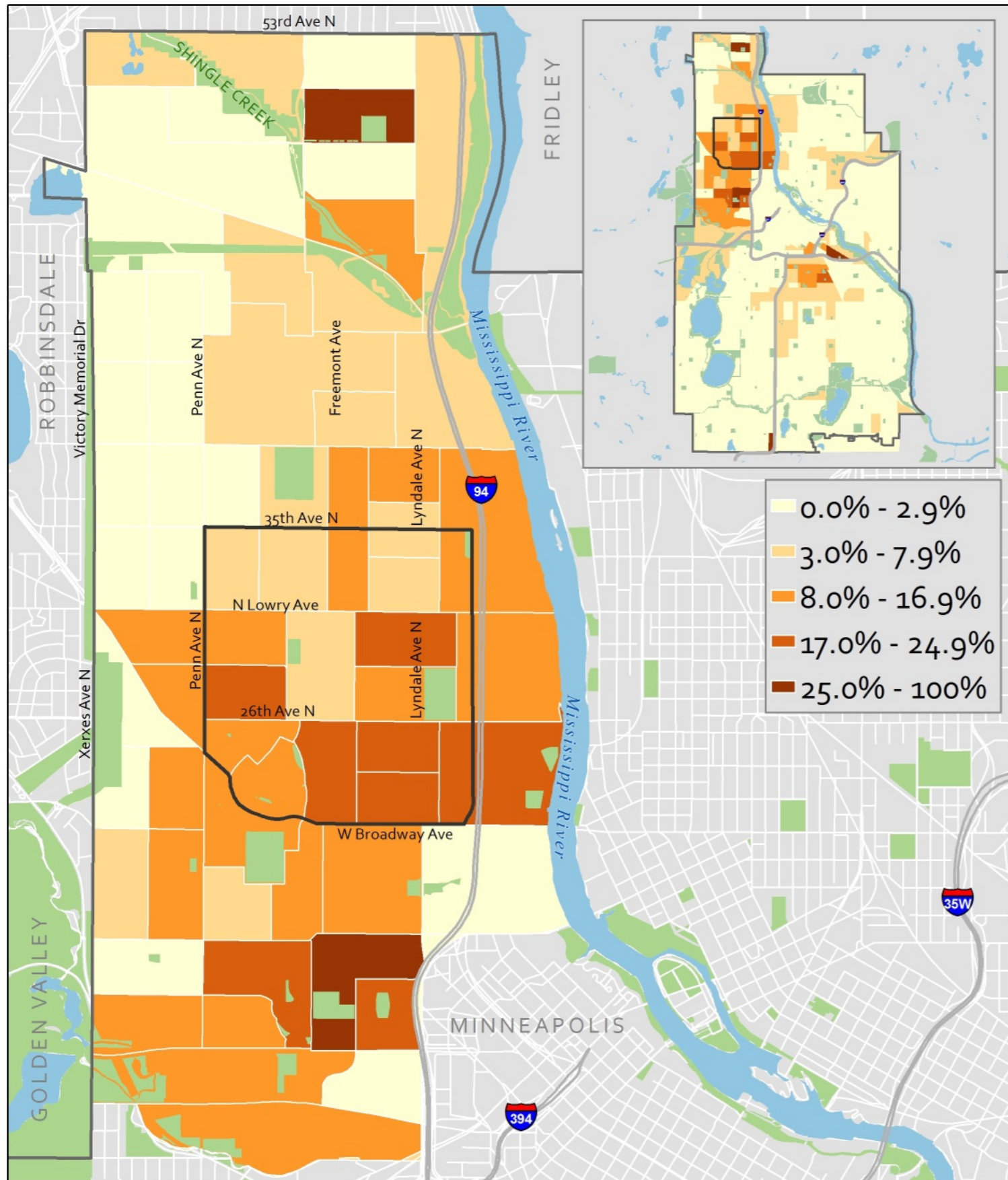


# Total Estimated Market Value by Parcel, 2015



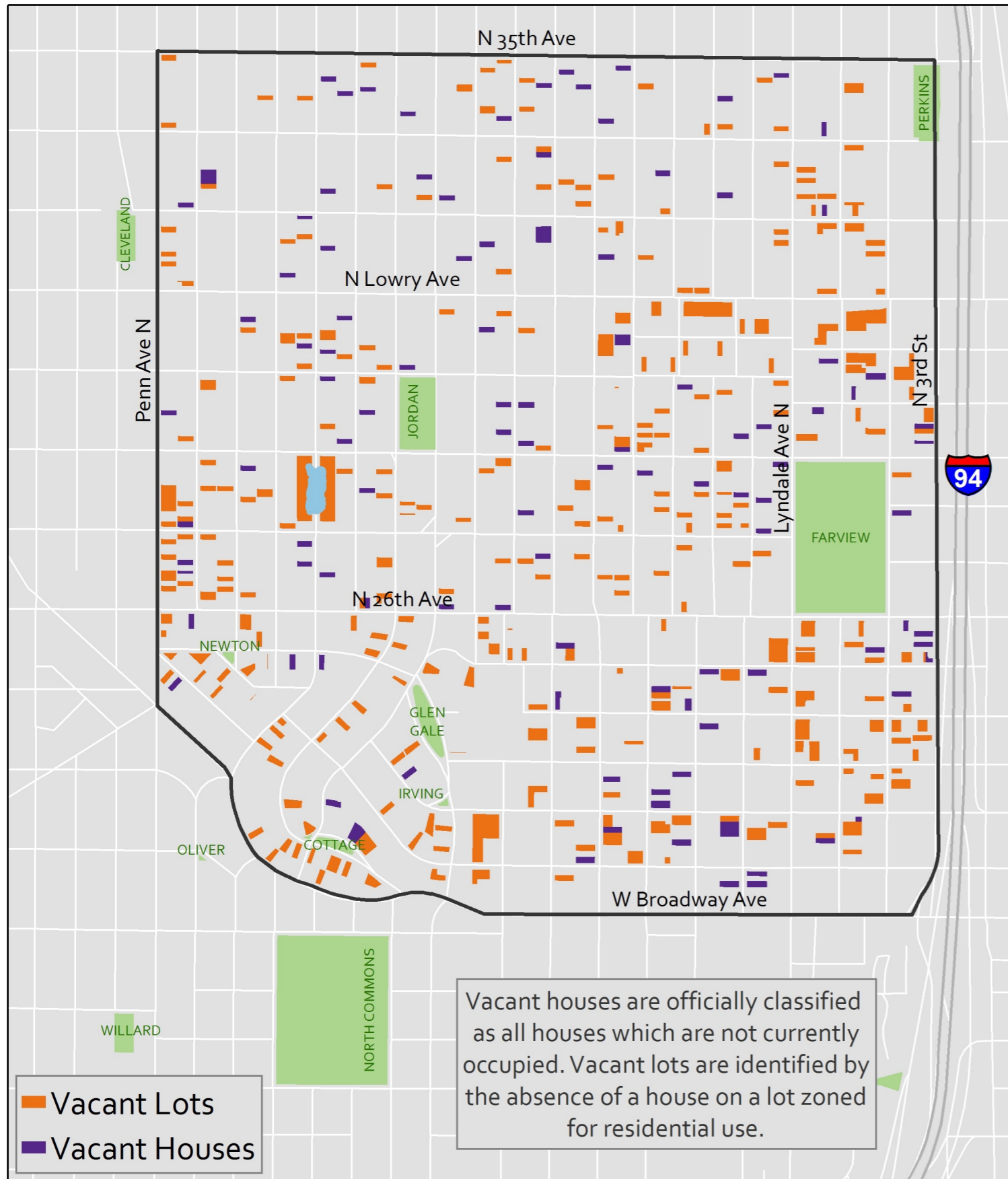
Total estimated market values in the Northside were lower than the rest of Minneapolis in 2015. Values in the NAZ zone were generally lower than the rest of the Northside as well.

# Percent of Residential Properties that are Vacant by Block Group in North Minneapolis, 2016



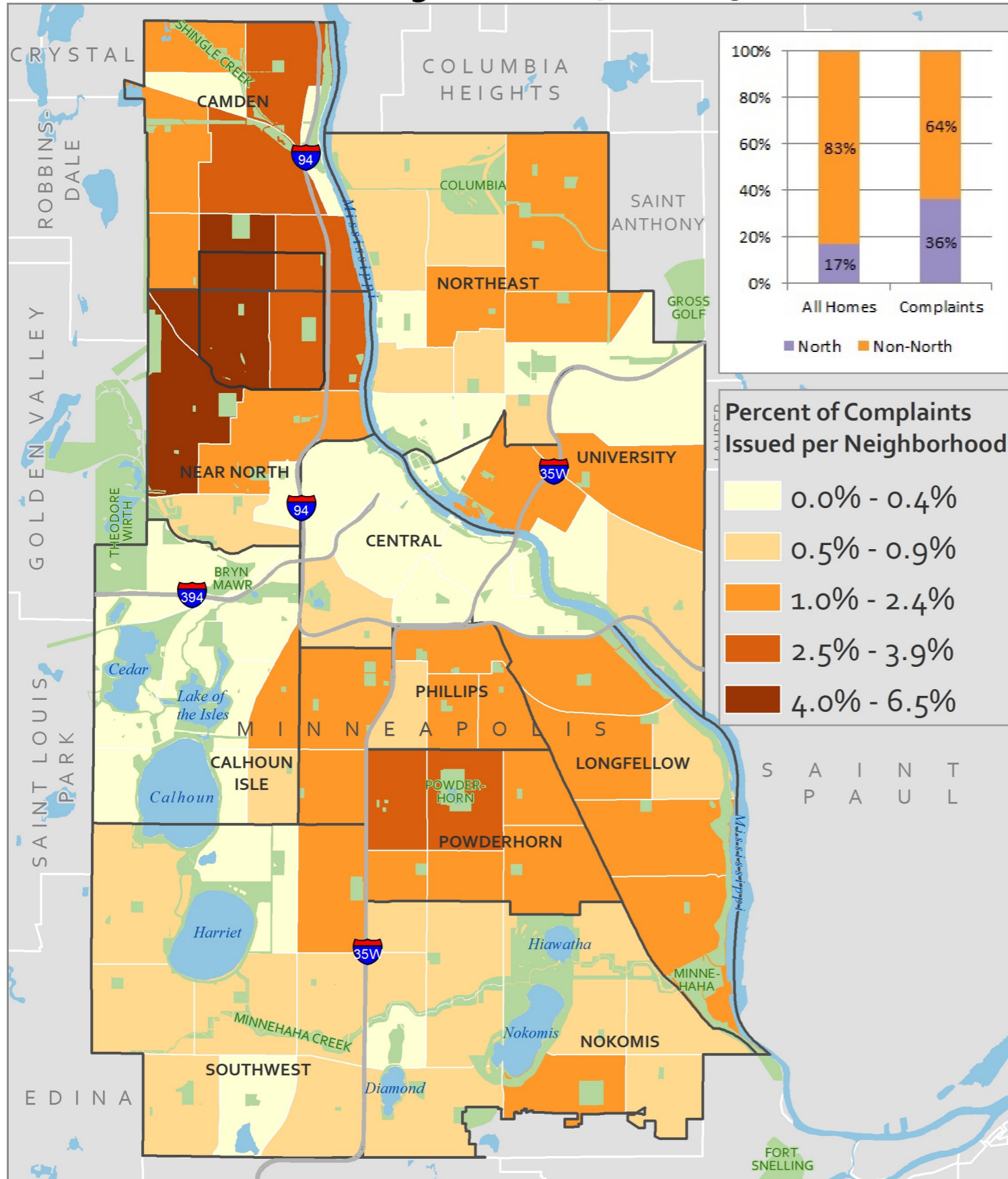
North Minneapolis has higher rates of vacant housing than the rest of Minneapolis.

# Vacant Residences in the Northside Achievement Zone, 2016



Vacant houses and lots are dispersed throughout the entire Northside Achievement Zone.

# Non-Emergency 311 Property Complaints Per Neighborhood, 2011-15



The Northside has disproportionately high levels of 311 complaints issued against properties.

# CONCLUSIONS

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- NAZ and the surrounding Northside display trends of poor-quality living conditions
- Compared with the rest of Minneapolis, North Minneapolis has:
  - ◆ Low rates of homeownership
  - ◆ Below-average physical conditions of housing
  - ◆ Low market values
  - ◆ High rates of vacancies
  - ◆ High rates of 311 complaints

# RECOMMENDATIONS

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- The results indicate that NAZ's goals could be negatively impacted by the poor-quality housing of the area.
- Housing will be a major challenge for NAZ in the future.



# ECONOMICS

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Jonathan Eber, Emma Pickett, Jonathan van Arneman, Soobin Choi

# RESEARCH QUESTIONS

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- How do household economics (household incomes, employment, personal banking, etc.) compare between the Northside and Minneapolis?
- Where are the pockets or concentrations of poverty or affluence in Minneapolis?
- What do the patterns and characteristics of business development in the Northside show?
- How do our studied economic indicators support or perpetuate one another?

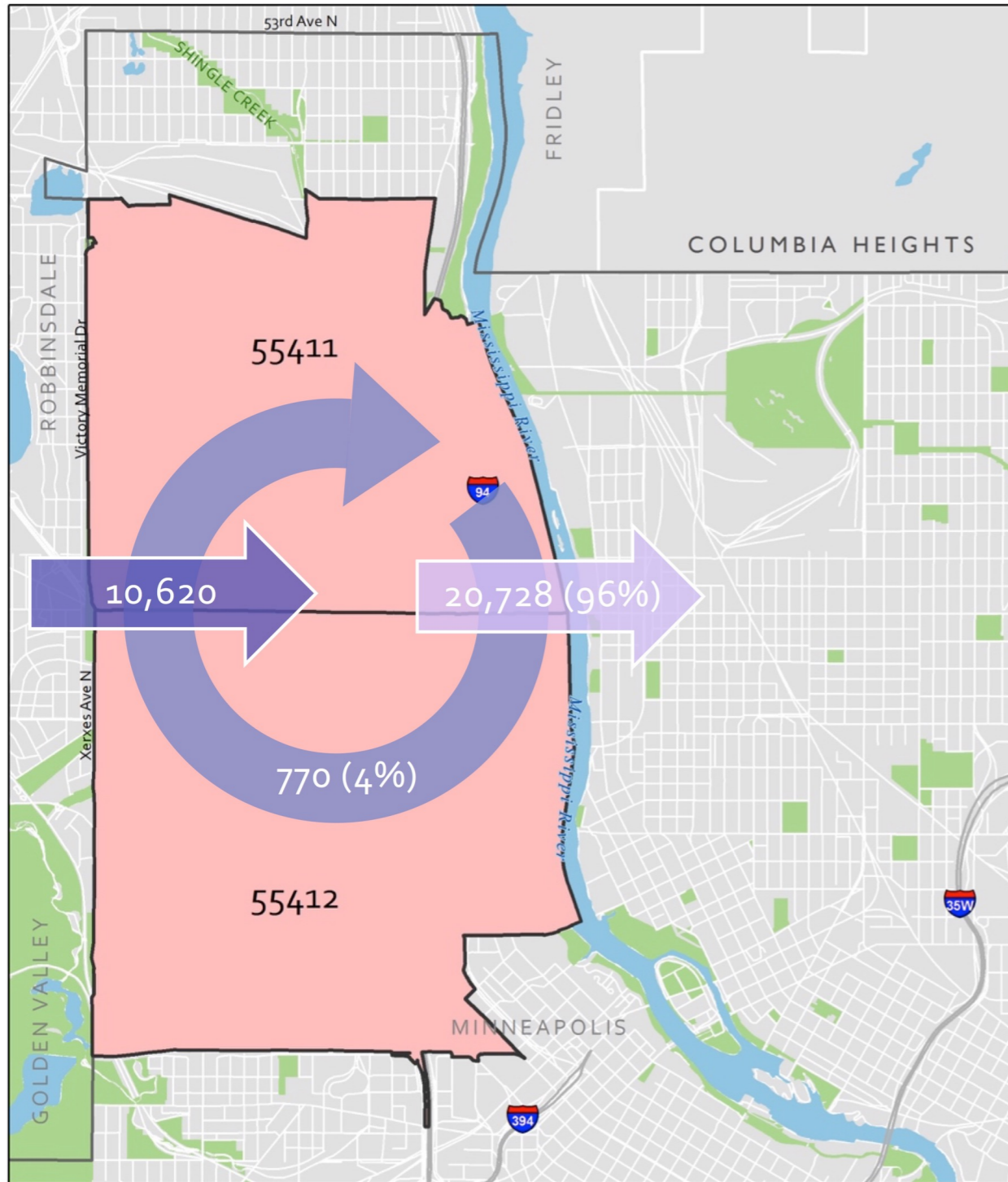


# VARIABLES

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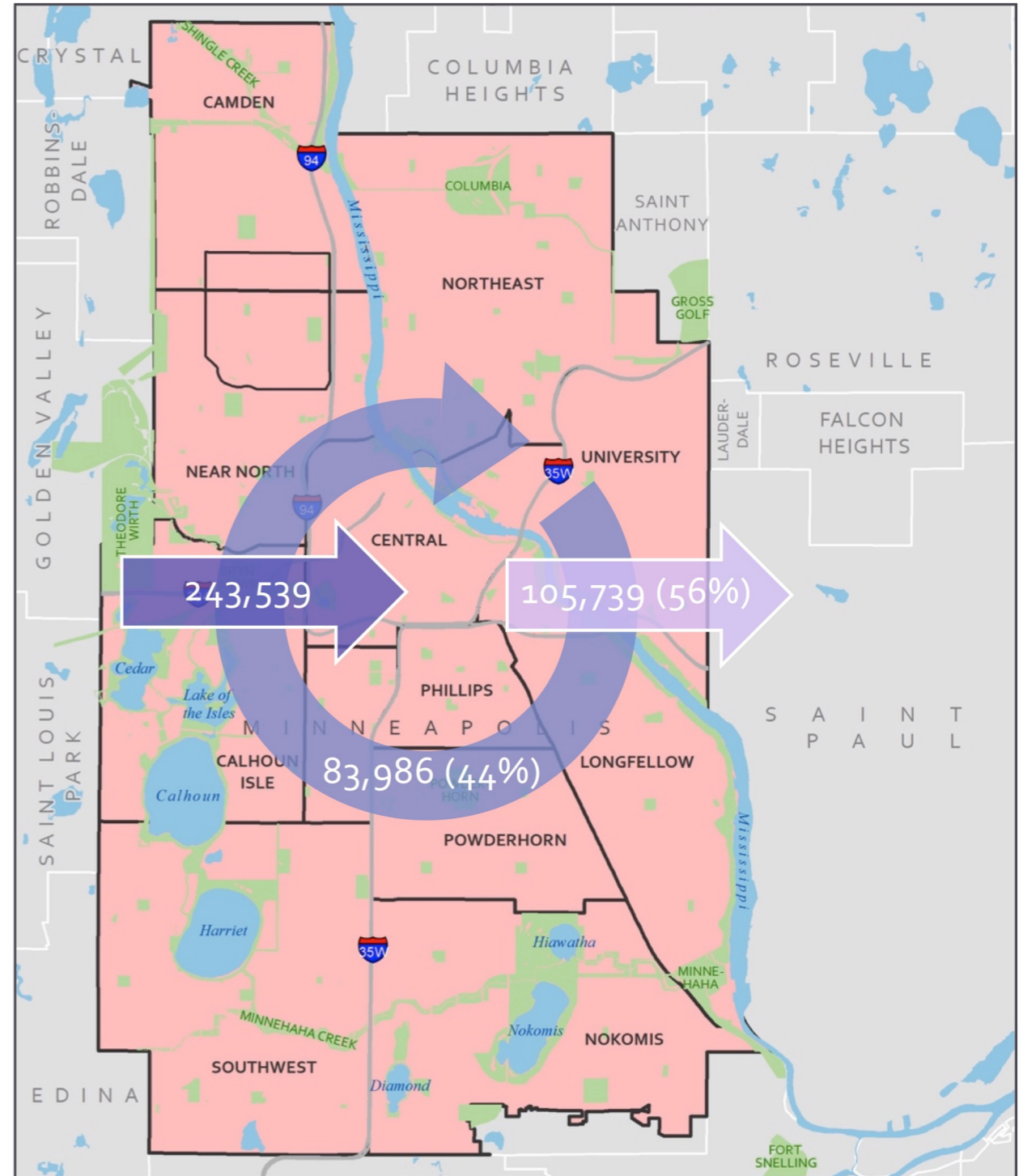
- Residence to Workplace Flow
- Unemployment
- Household Income
- Banking Activity
- Business-Owner Profiles

Movement from Residence to Workplace for People Living In Zip Code Areas 55411 and 55412



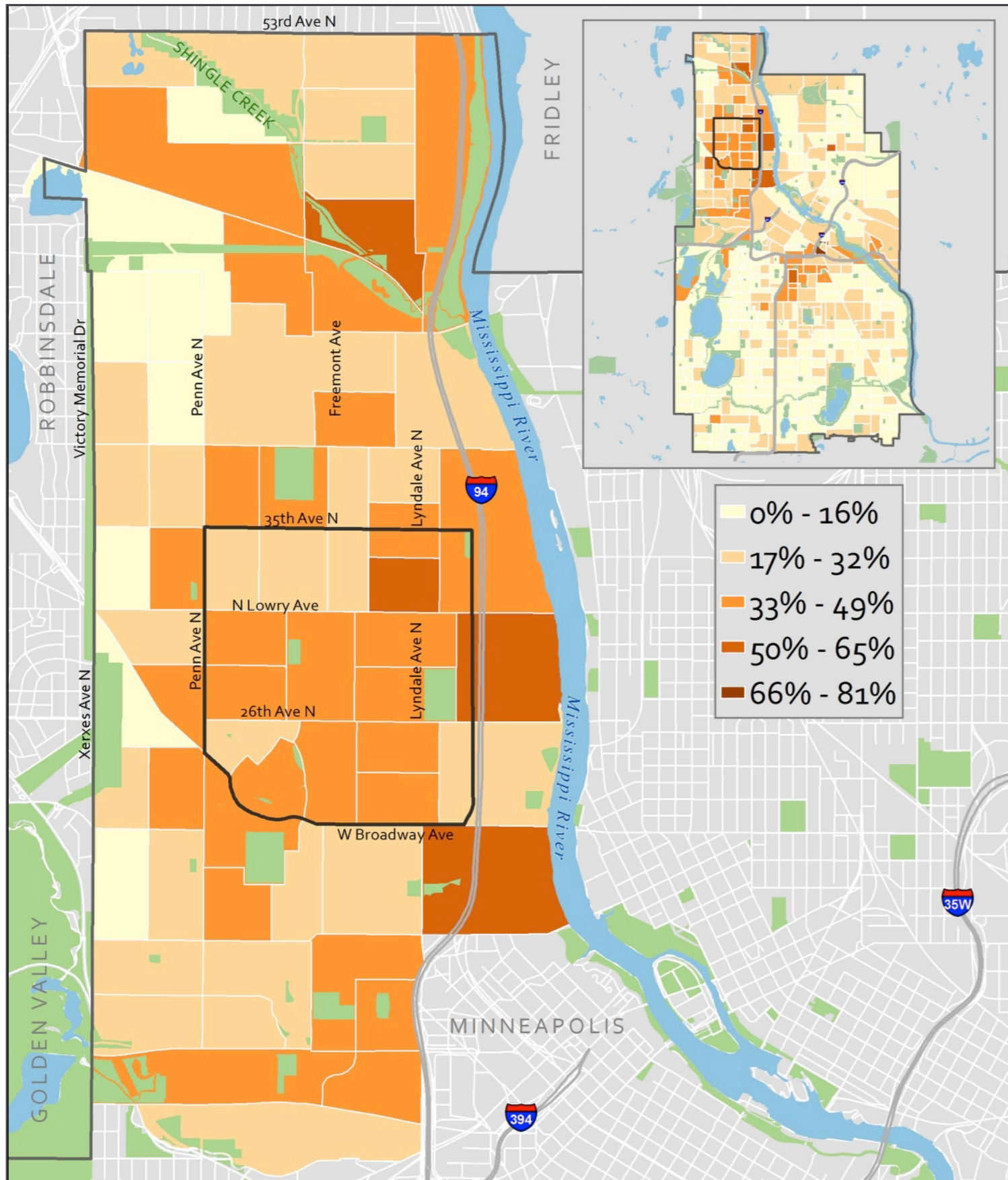
Working in Study Area	Working Out of Study Area
4%	96%

Movement from Residence to Workplace for People Living in Minneapolis



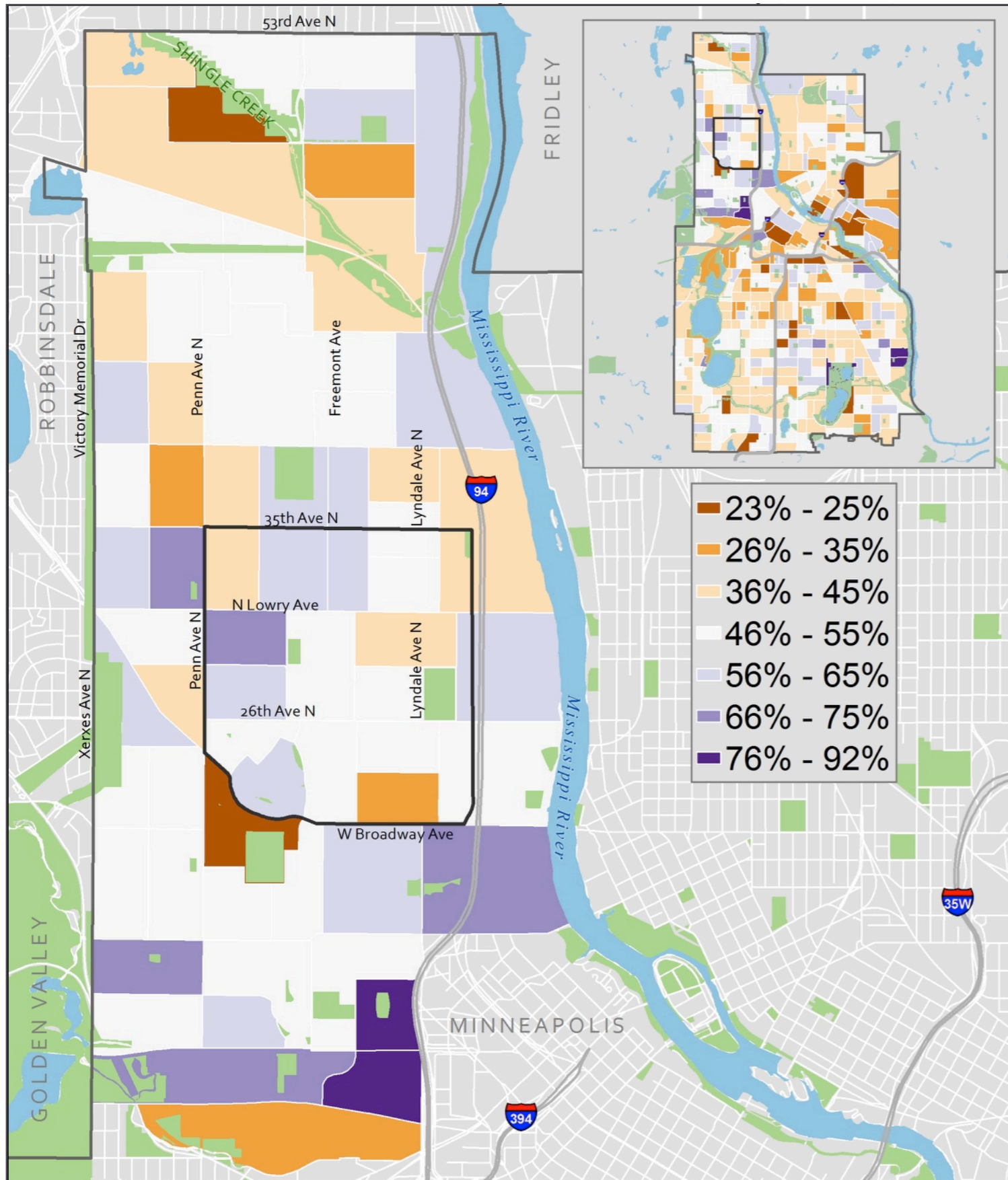
Working in Study Area	Working Out of Study Area
44%	56%

# Unemployment Rate in the Northside by Block Group, 2014



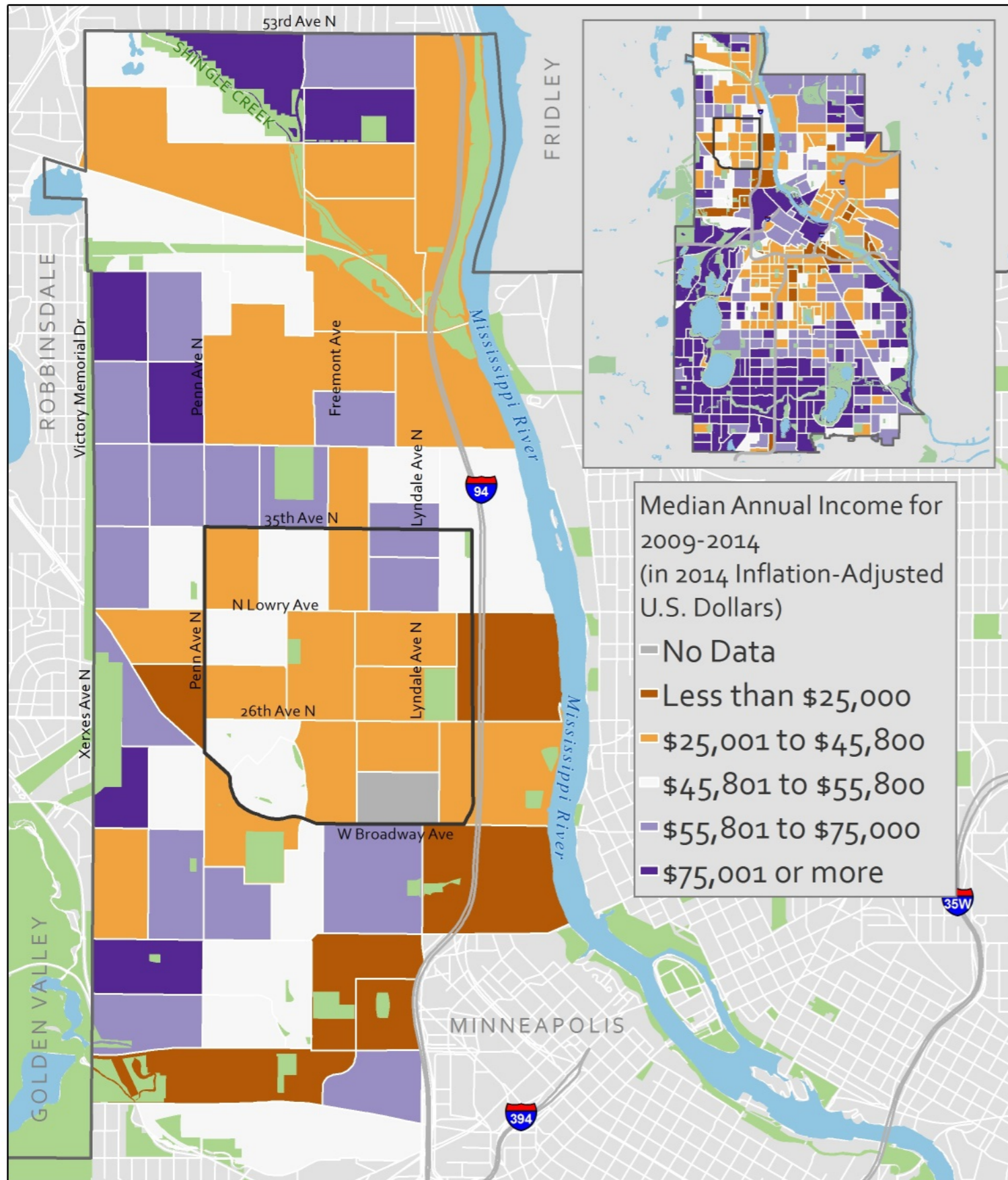
Unemployment rates are much higher for block groups in the Northside than for the rest of Minneapolis.

# Percentage of Full-Time Workforce that is Female in the Northside by Block Group, 2014



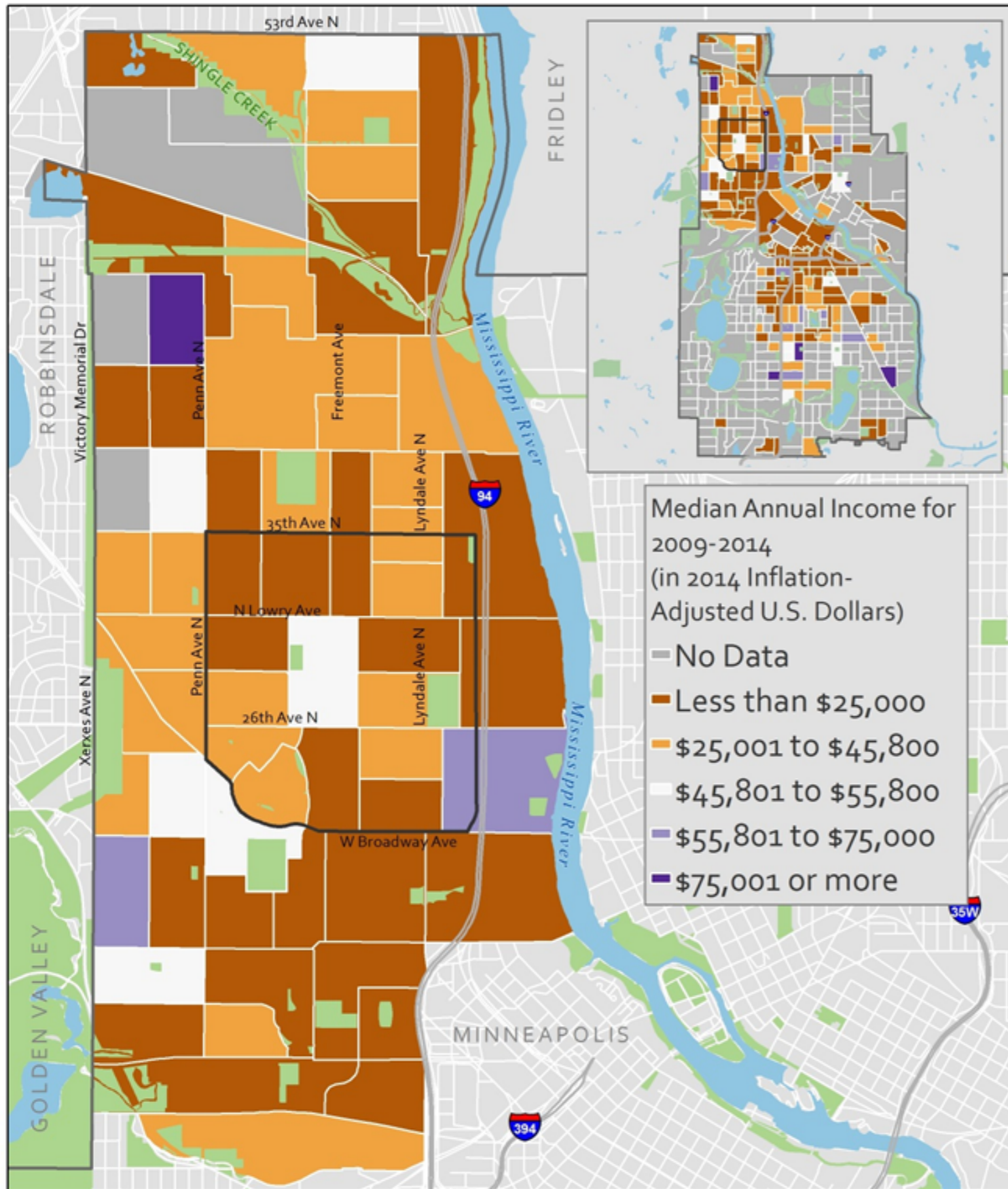
Females in the Northside are especially burdened with the need to work full-time to support their households.

# Median Household Income of White Alone Householders in North Minneapolis by Block Group, 2009-2014



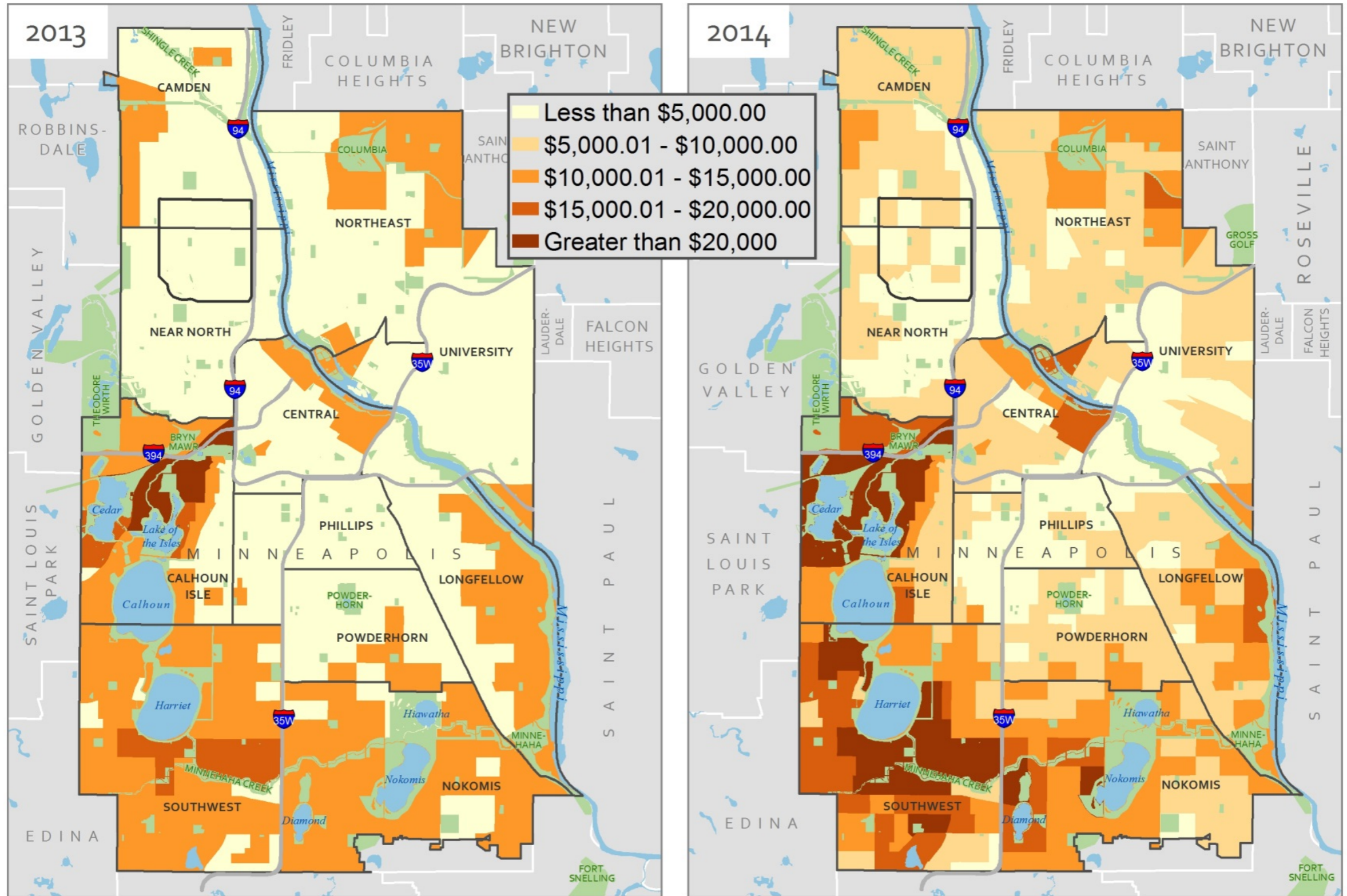
The Northside along with the Phillips and University neighborhoods contain the lowest median household incomes in the city and a significant concentration of median household incomes that are less than Minneapolis' median of \$50,767.

# Median Household Income of Black or African American Alone Householders in North Minneapolis by Block Group, 2009-2014



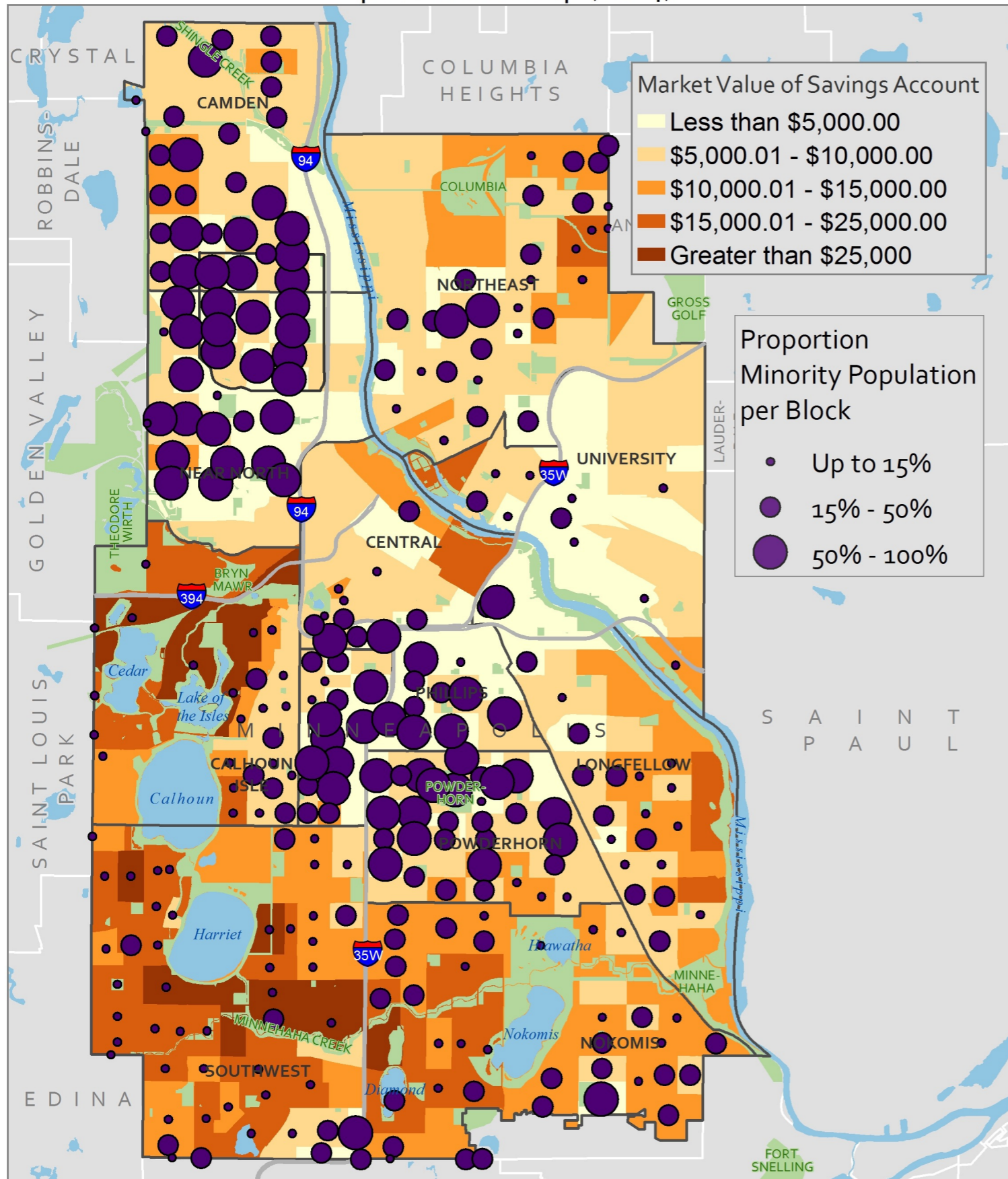
Nearly all of the block groups in Minneapolis exhibit median household incomes for Black or African American householders to be less than Minneapolis' median of \$50,767. This is especially prominent in the Northside.

# Average Dollar Amount in Checking Account per Minneapolis Block Group



There is a significant difference in Checking Account Amounts between 2013 and 2014 with gains to almost all block groups. However, disparities between North and South Minneapolis persist.

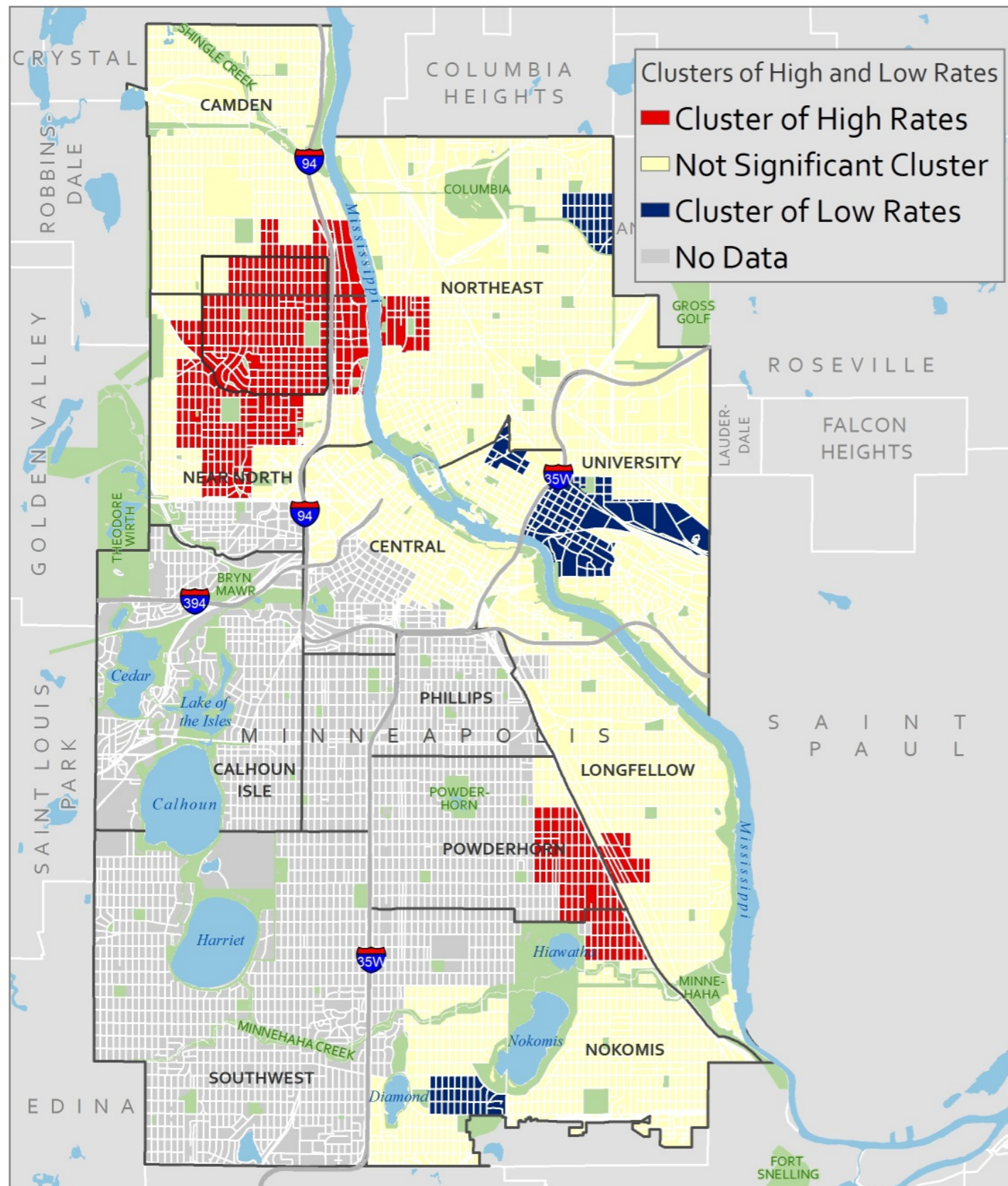
# A Comparison of the Proportion of Minority Population per Block (2010) to Average Market Value of Savings Accounts per Block Group (2014)



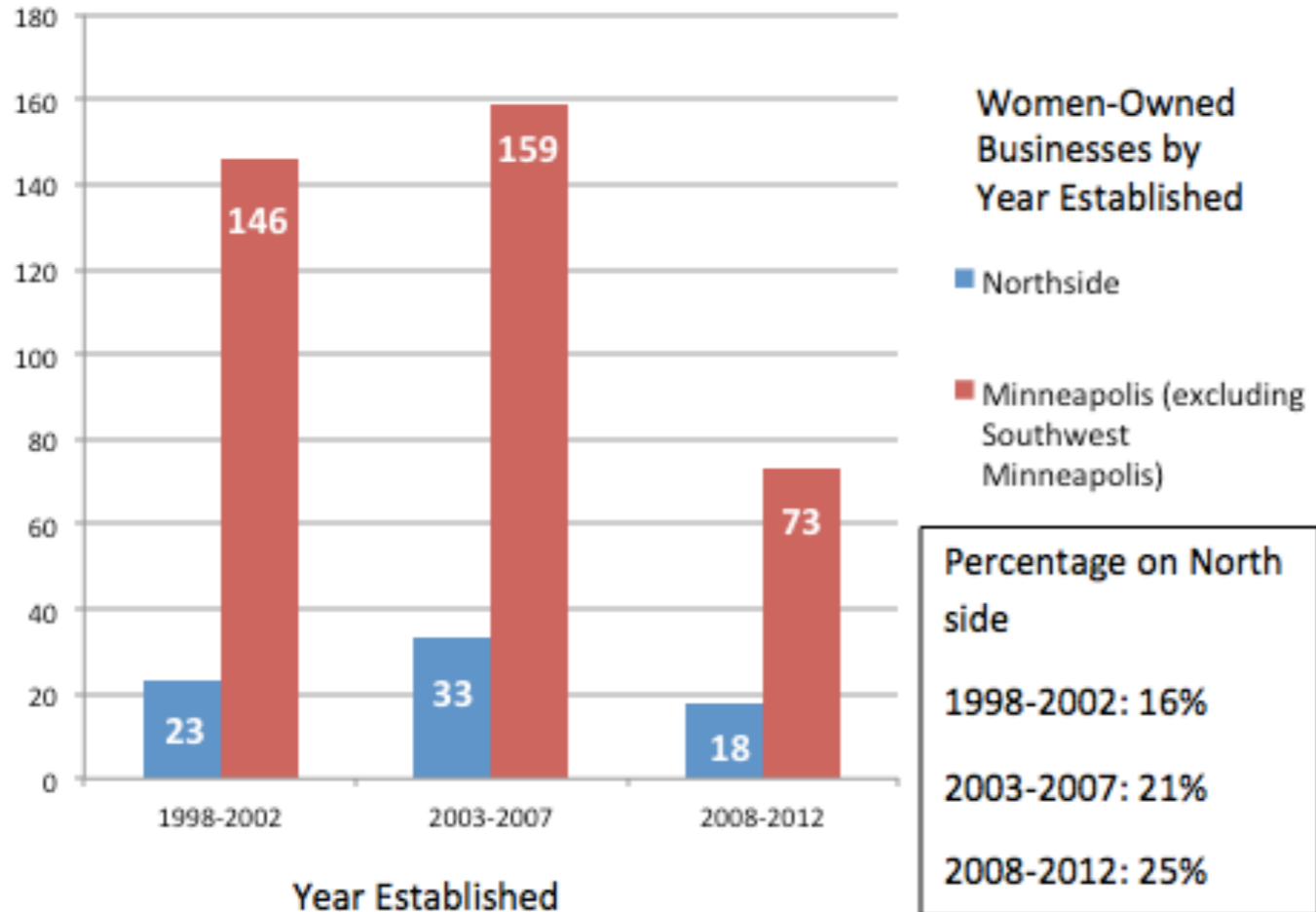
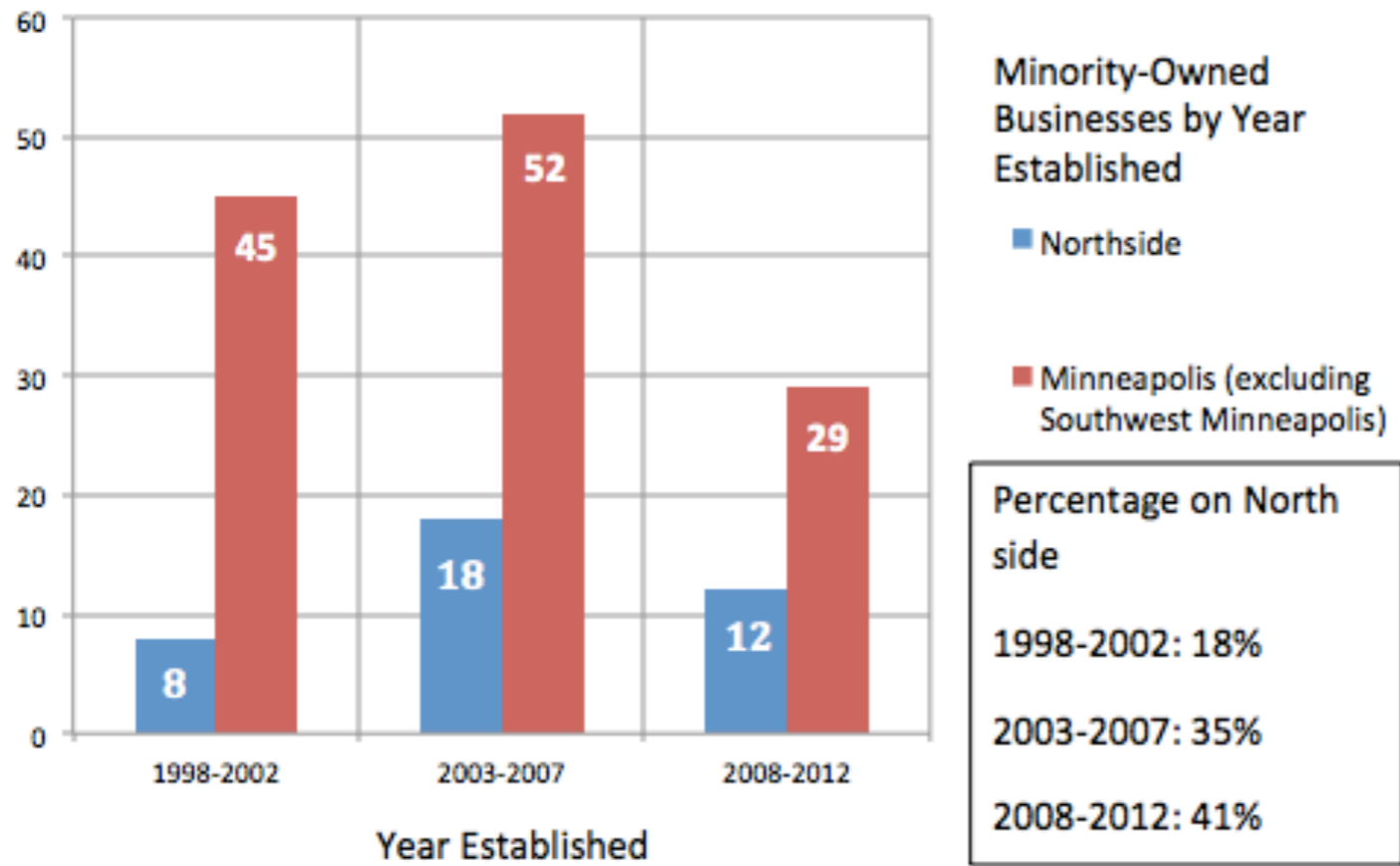
By overlaying minority population and savings account values, we see that the areas of high minority populations have low savings and the areas with low minority populations have higher savings.



# Clusters of Block Groups with Significantly High or Low Rates of Businesses Categorized as 'High Risk' by Dun And Bradstreet's Screening, 2013



North Minneapolis has a statistically significant cluster of block groups with above average rates of high-risk businesses. This is the largest cluster of this kind in the entire city.



The Northside's share of newly opened, minority-owned businesses in Minneapolis is increasing. This same trend can be seen with newly opened, women-owned businesses.

# CONCLUSIONS

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- There is a general lack of employment opportunities in the Northside for Northside residents.
- The relatively greater proportion of full-time employed females in the Northside, as primary household earners, reasserts the financial necessity of full-time employment.
- There is a racial concentration of poverty present in the Northside that has worsened over time.
- The Northside has exhibited increasing business inclusivity over time, though delinquent loan and rent payments remain an issue.

# RECOMMENDATIONS

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- North Minneapolis residents need increased access to skills training and higher-paying jobs.
- There is a need for programs targeted to full-time employed females that assist in achieving long-term economic stability.
- Savings activity and responsible personal financing should be encouraged in North Minneapolis especially amongst minority residents.
- Extra attention should be given to the connection between racial and economic disparities present in the Northside.
- Longevity in businesses and business life cycles should be monitored in the Northside.



# HEALTH

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Gabrielle Anderson, Emma FitzGerald, Josh Koh, Jake Ramthun

# RESEARCH QUESTIONS

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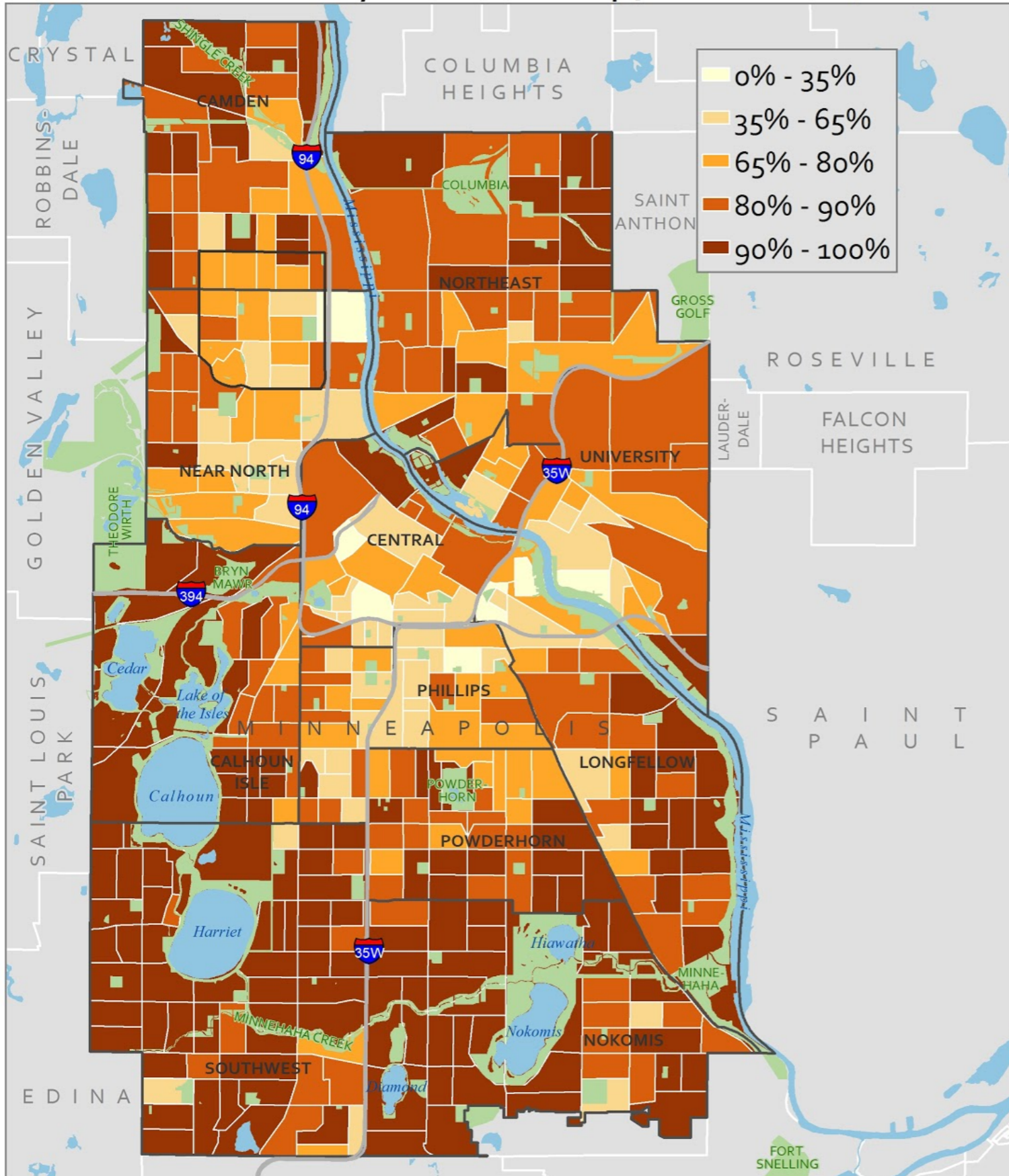
- What is the quality and efficiency of public transit?
- Accessibility to Resources
  - ◆ How available and accessible are sources of nutritious food?
  - ◆ How accessible are healthcare facilities?
- What are the spatial patterns of crime and safety hazards affecting families?

# VARIABLES

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- Transportation
  - ◆ Car ownership
  - ◆ Transit routes and transit frequency
- Food
  - ◆ Food deserts
  - ◆ Overall and seasonal food sources
- Healthcare
  - ◆ Facilities
- Crime/Safety
  - ◆ Violent crime
  - ◆ Asthma triggers

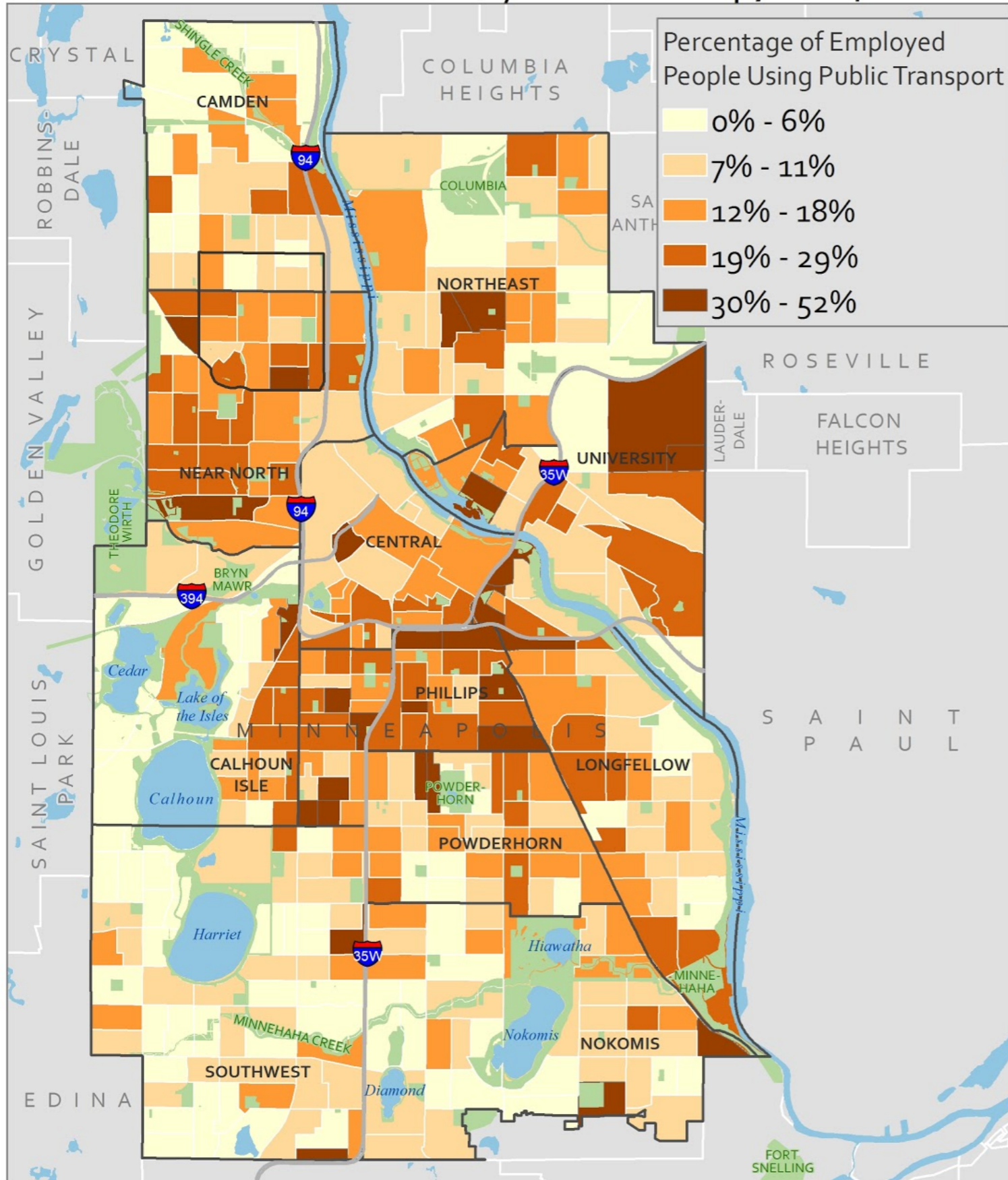
# Percent of Population with at Least One Available Vehicle by Block Group, 2010-2014



The lowest rates of vehicle access are concentrated near downtown and in the Northside.

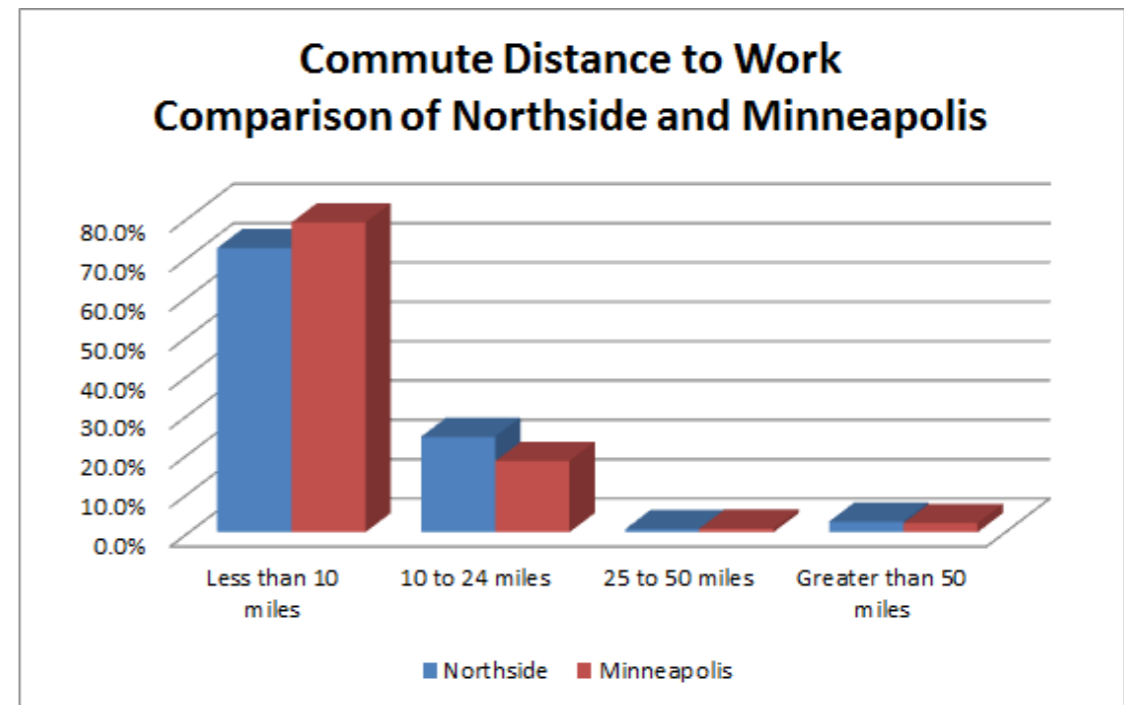
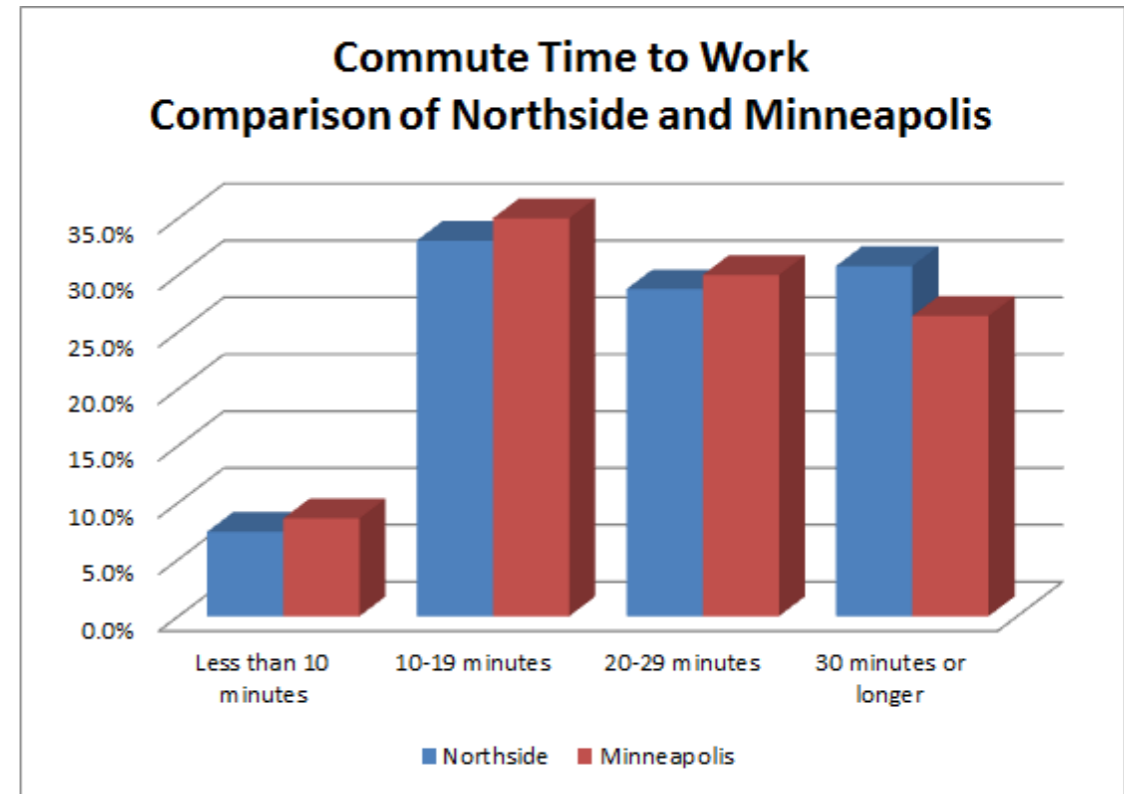
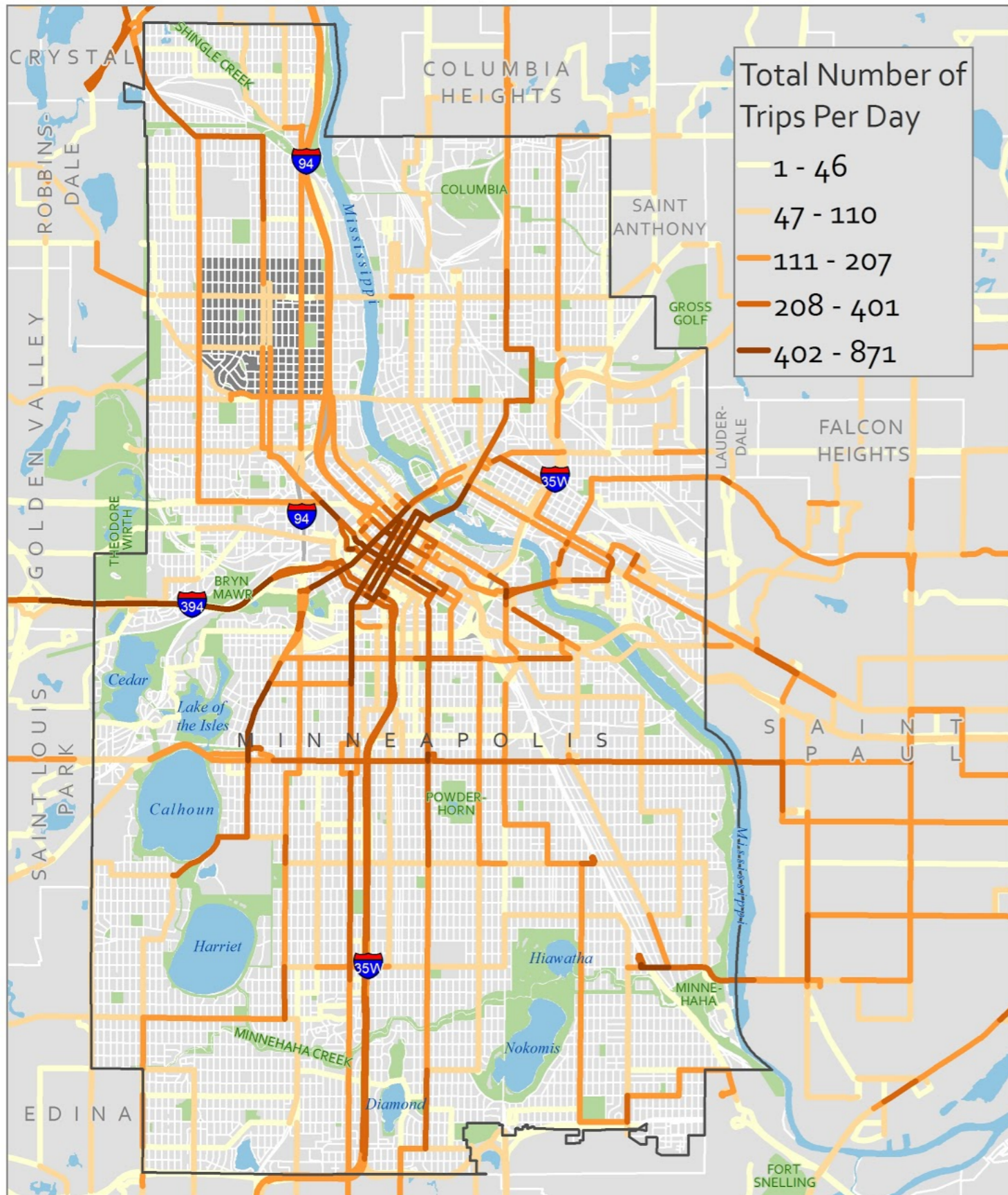


# Public Transport Usage As Means of Commute to Work in the Northside by Block Group, 2014

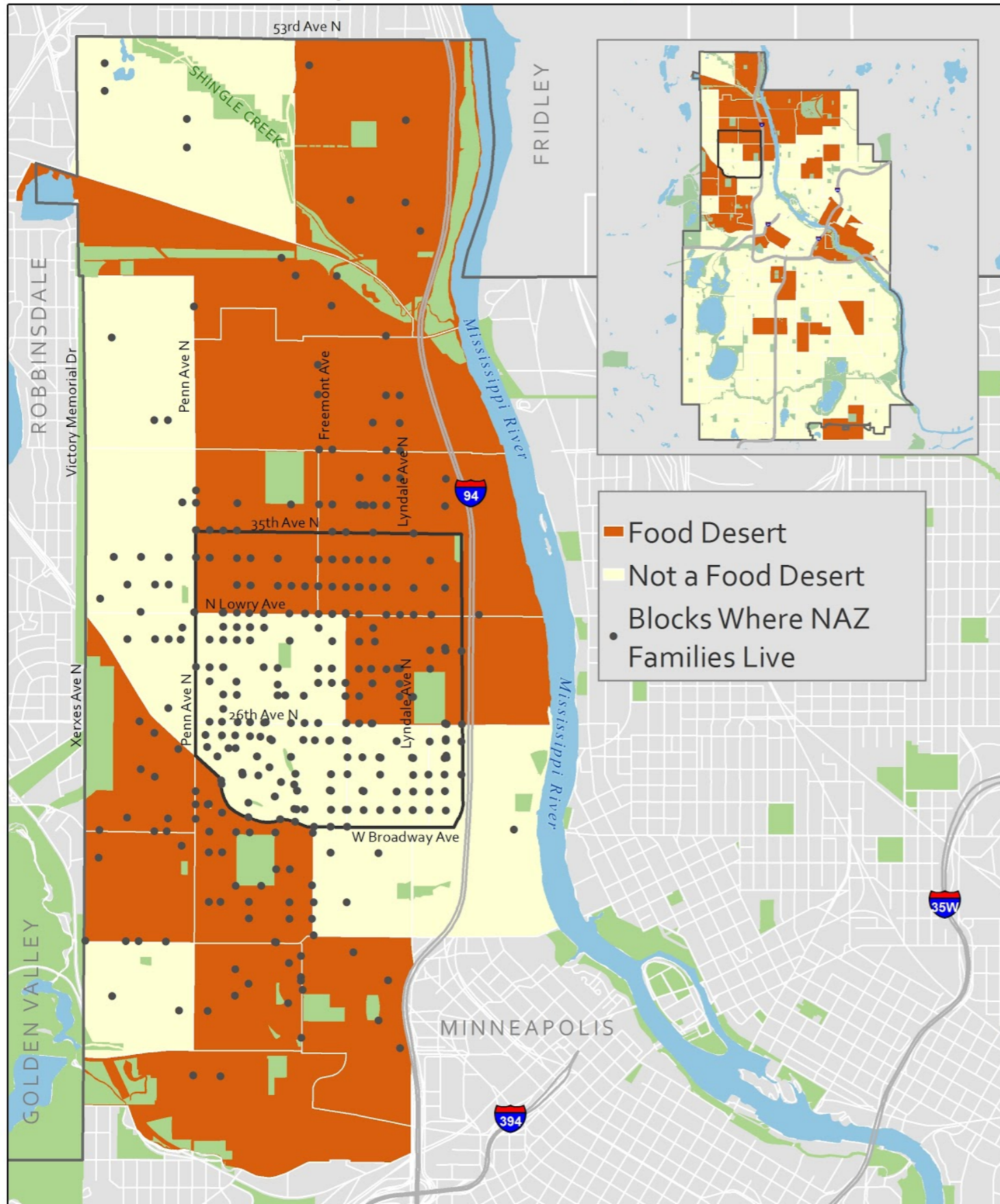


In the Northside, especially in the Near North community, there is still a high concentration of block groups in which workers use the public transit system as their primary means of commute.

# Transit Frequency in Minneapolis by Road Segment, 2014

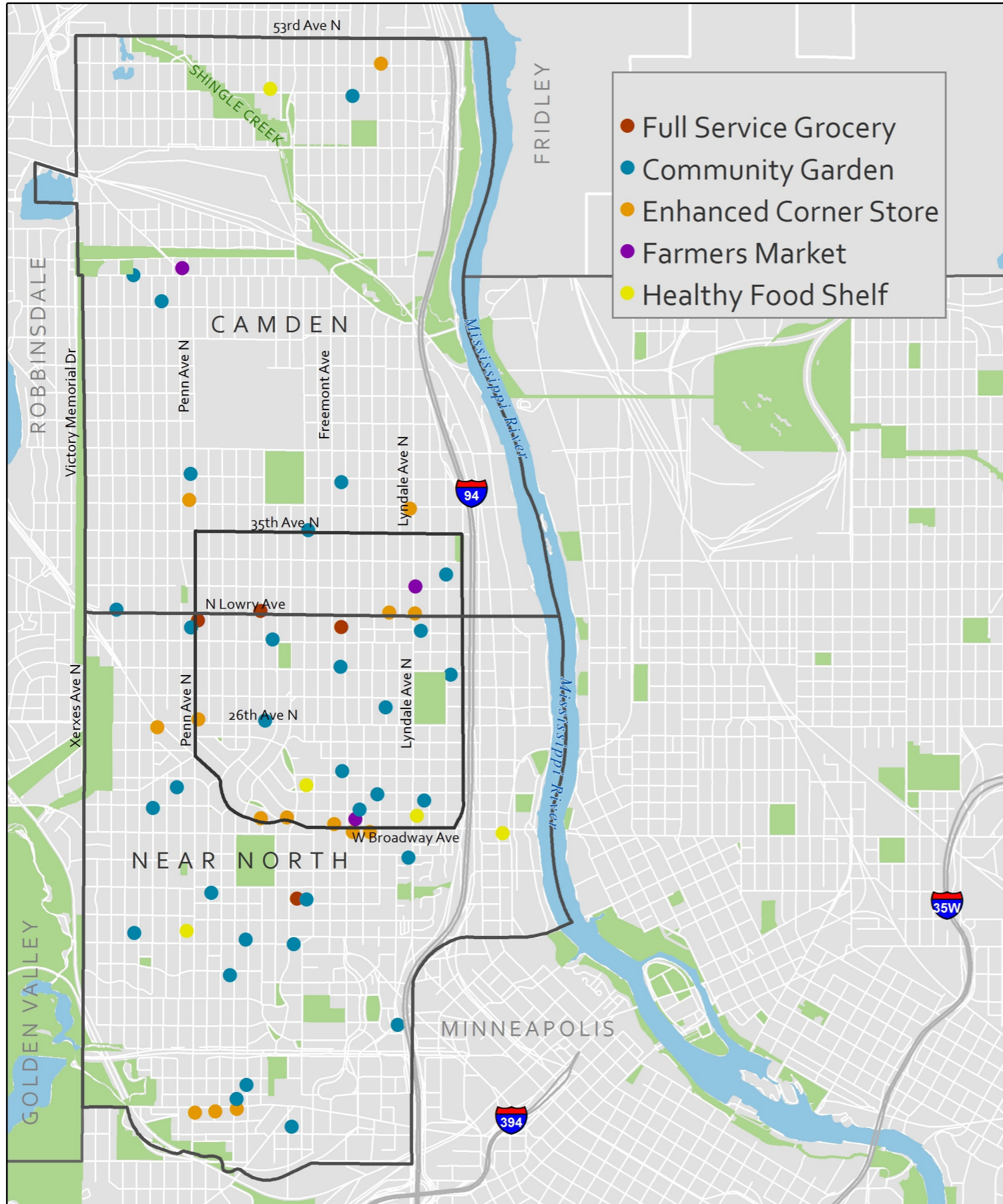


# Food Deserts in North Minneapolis by Census Tract, 2013



49.4% of NAZ participant families are living in areas deemed food deserts.

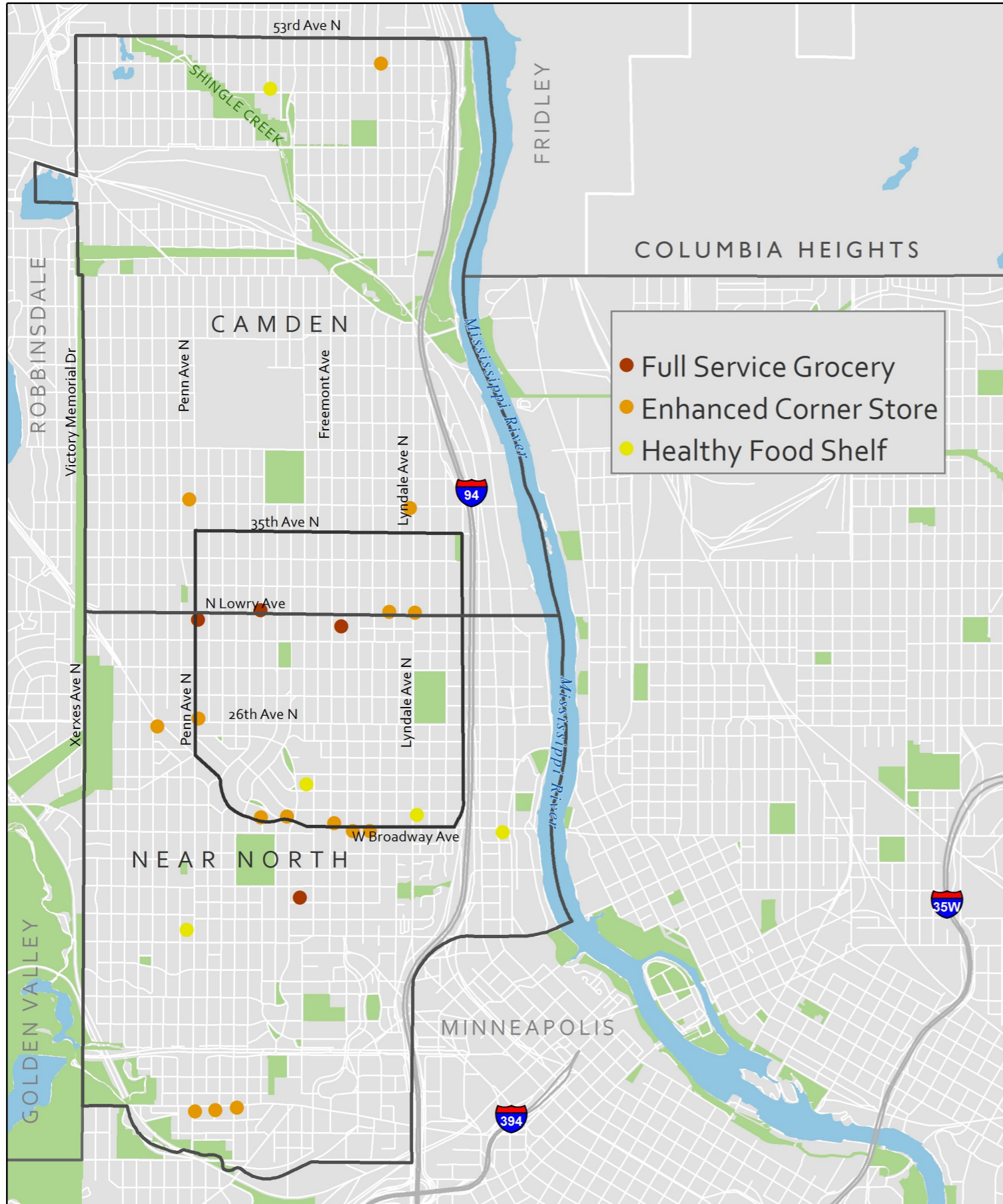
# Healthy Food Vendors in North Minneapolis



There are only four full-service grocery stores in the Northside.

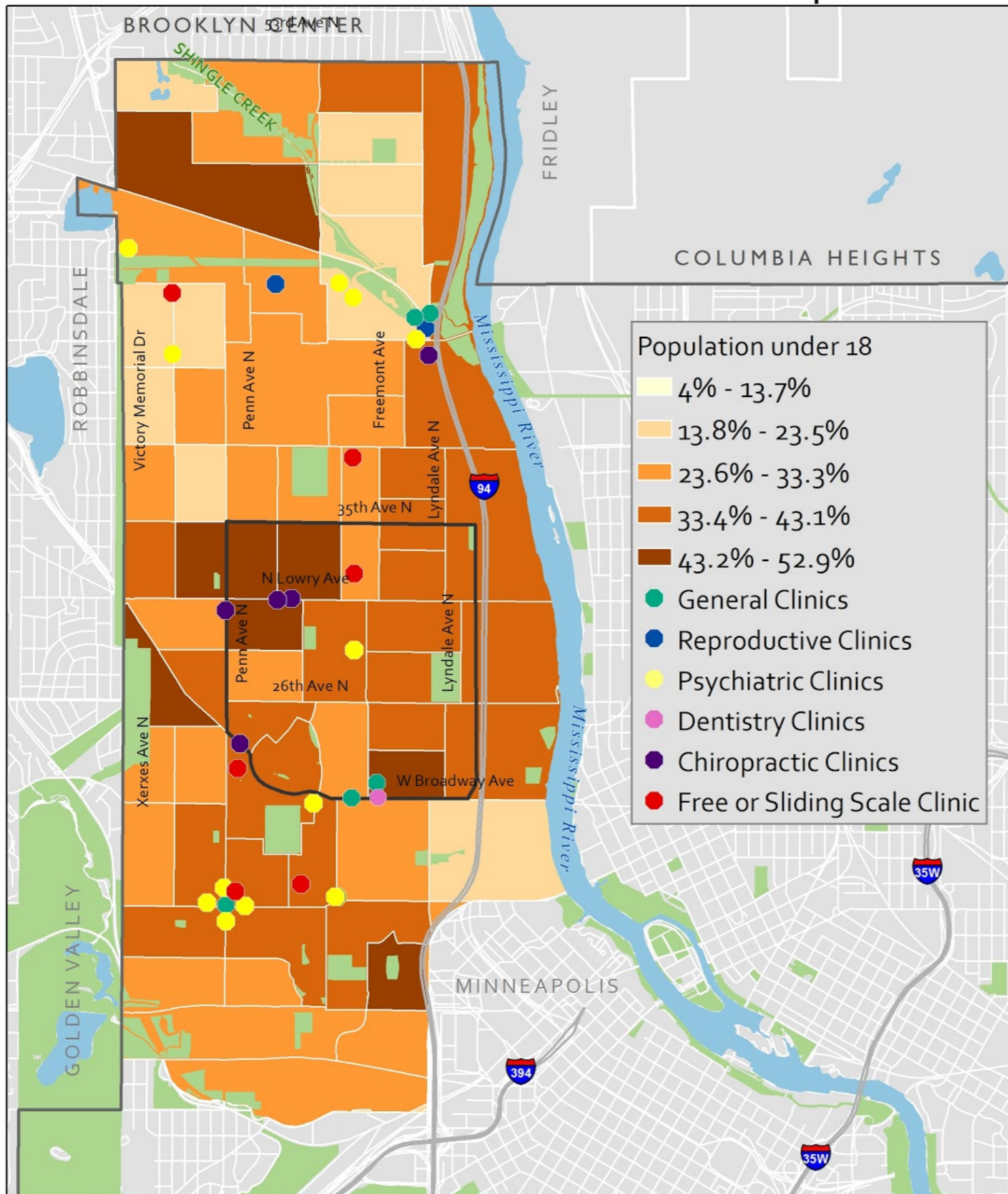
Other options have less variety and may be seasonal.

# Healthy Food Vendors in North Minneapolis



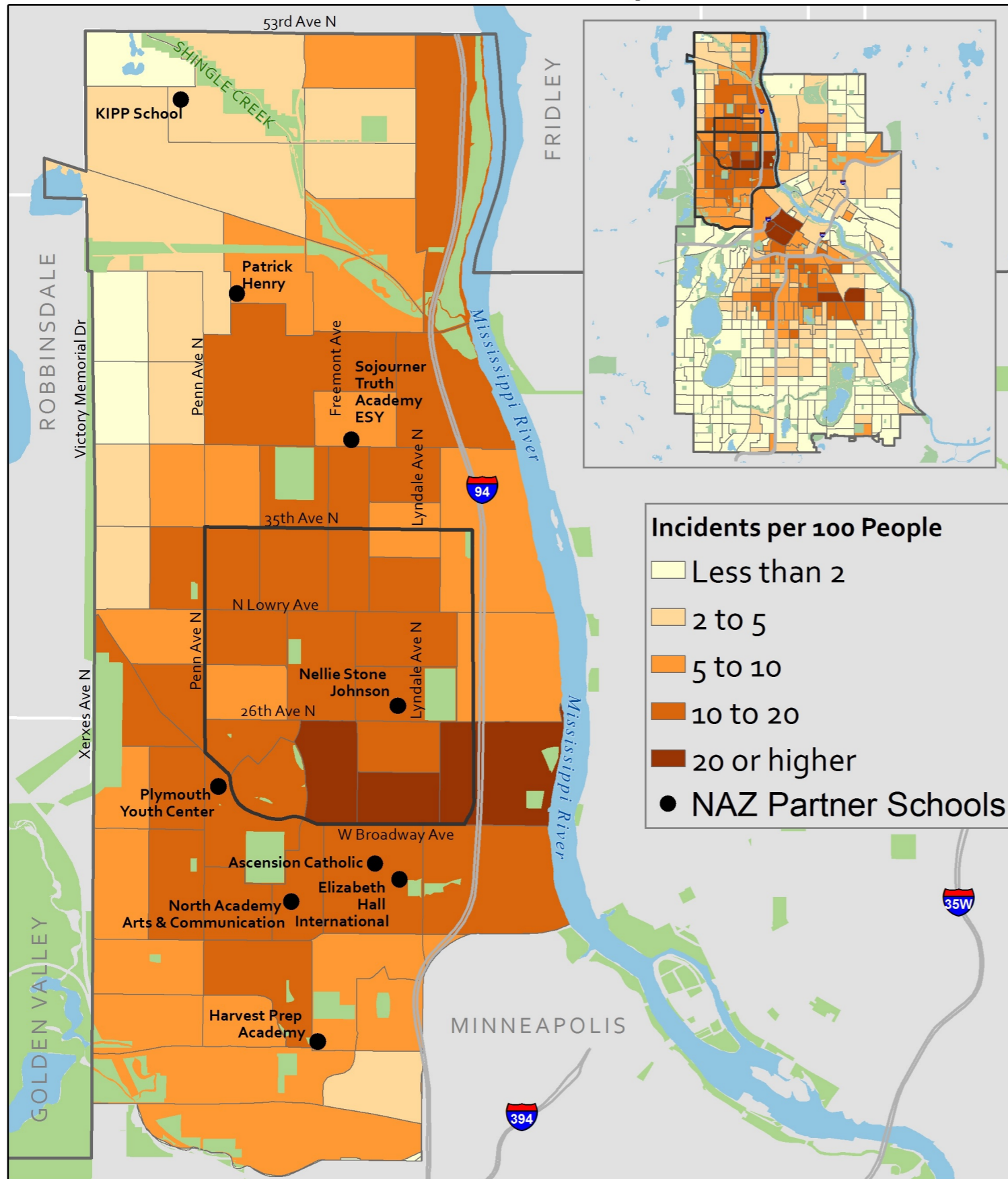
In winter, access to nutritious food may drop severely.

# Health Clinics in North Minneapolis



Clinics that are of specific use to families, such as reproductive or general clinics, are fewer in number and are not located in the NAZ zone.

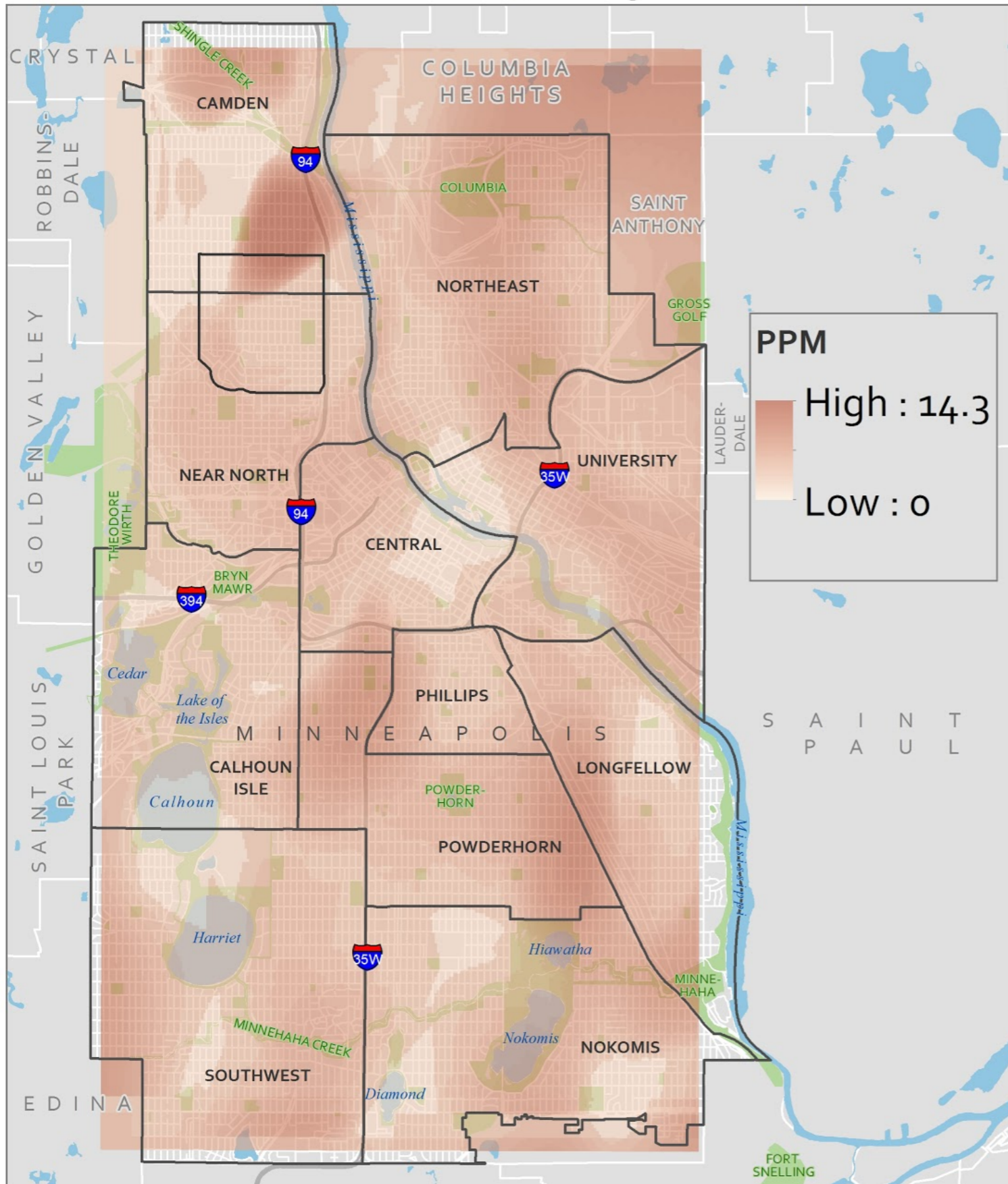
# Violent Crime by Block Group, 2010 - 2015



The Northside experiences a high concentration of violent crime.

Violent crime is most prevalent along commercial streets, especially West Broadway.

# Average Airborne Toluene, November 2013 - August 2014



Asthma risk from airborne toluene is much higher in the Northside than the rest of the city.

Further measurements are necessary on other compounds.



# CONCLUSIONS

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- Spatial patterns of health concerns are largely congruent with other socioeconomic indicators.
- Disparities exist not only between the Northside and other parts of Minneapolis, but also within the Northside.
- Although health care resources are present in the Northside, issues remain with lack of choice and suitability of care.

# RECOMMENDATIONS

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- Dialogue between NAZ and Metro Transit.
- We encourage assessment of the healthcare facilities available to the self-reported healthcare goals of community members.
- Pursuing community input on challenges with property upkeep in order to assess potential home health risk.

# PROJECT SUMMARY

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- Most of our variable maps are strongly correlated with each other and especially with the spatial pattern of African-American population.
- Serious and significant disparities exist between the Northside and the city of Minneapolis in all four of our identified themes.
- Even within the Northside, many disparities exist between the largest area of concentration of NAZ program families and the rest of the community.
- These findings provide strong support for the holistic, wraparound approach of the Northside Achievement Zone program.

# LOOKING FORWARD

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- Impactful geographic visualizations support and enhance a compelling narrative about the need for a **place-based** initiative in the Northside and the necessity of the **wraparound** framework.
- Multi-variable research helps to identify additional issues, connections, and potential NAZ program **partners**.
- Continued assessment of select variables can contribute to **evidence-based** measurement of progress toward eradicating disparities.

# ACKNOWLEDGEMENTS

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Sondra Samuels (President and CEO) and the Northside  
Achievement Zone

Jacob Wascalus, Rob Grunewald, and the Community  
Development Department, Federal Reserve Bank of  
Minneapolis

Mageen Caines, City of Minneapolis Health Department

Macalester College Civic Engagement Center