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Research Question

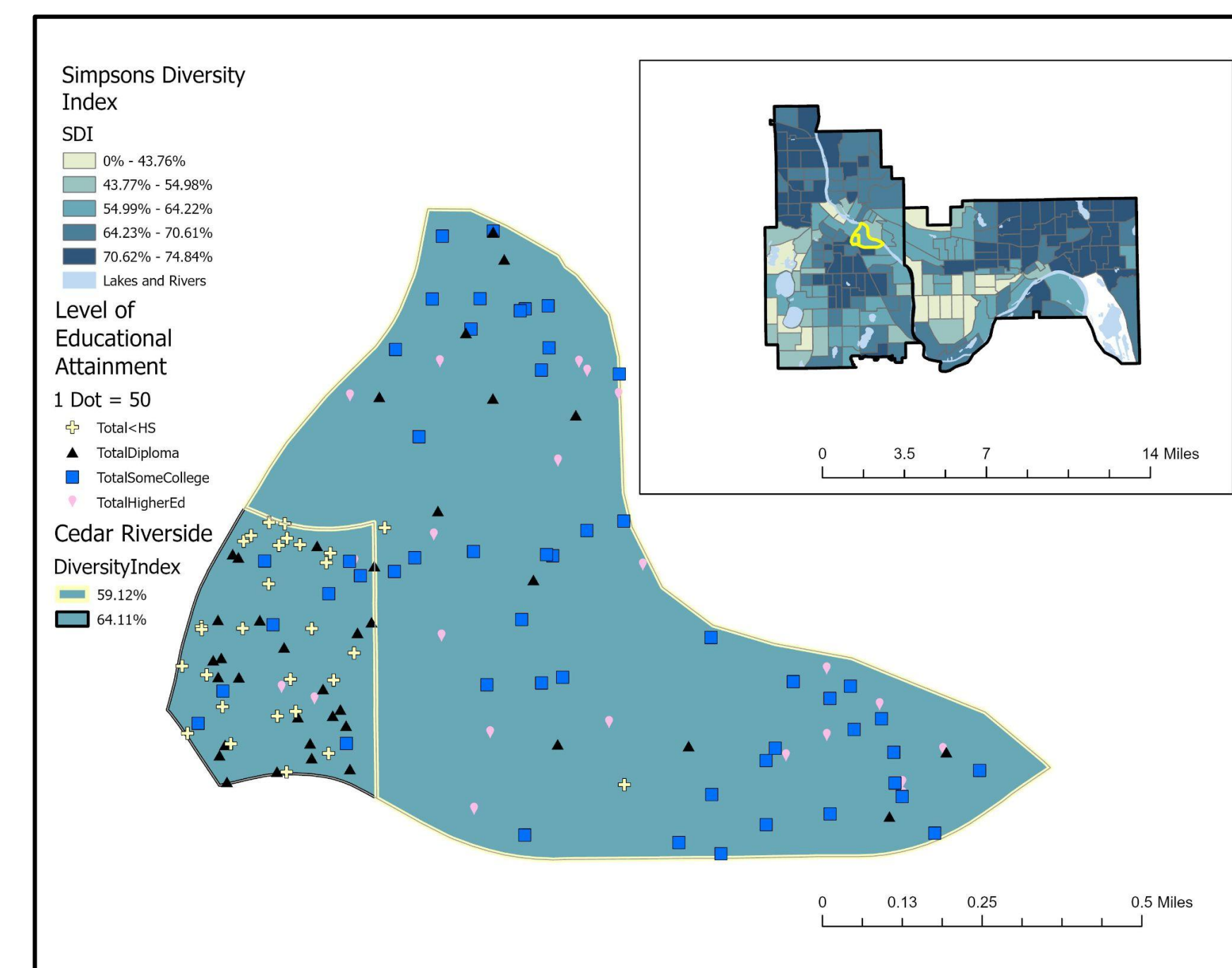**How diverse is Cedar Riverside relative to the Twin Cities?**

By compiling census data from various sources, we sought to develop 5 maps to show diversity across 3 metrics, educational attainment, place of birth, and race/ethnicity. Pulling from Cedar-Riverside's history of being a hub for newly arrived immigrants and the presence of two universities in the neighborhood, this research project aims to explore quantitatively how diverse Cedar-Riverside is in these areas relative to the Twin Cities overall.
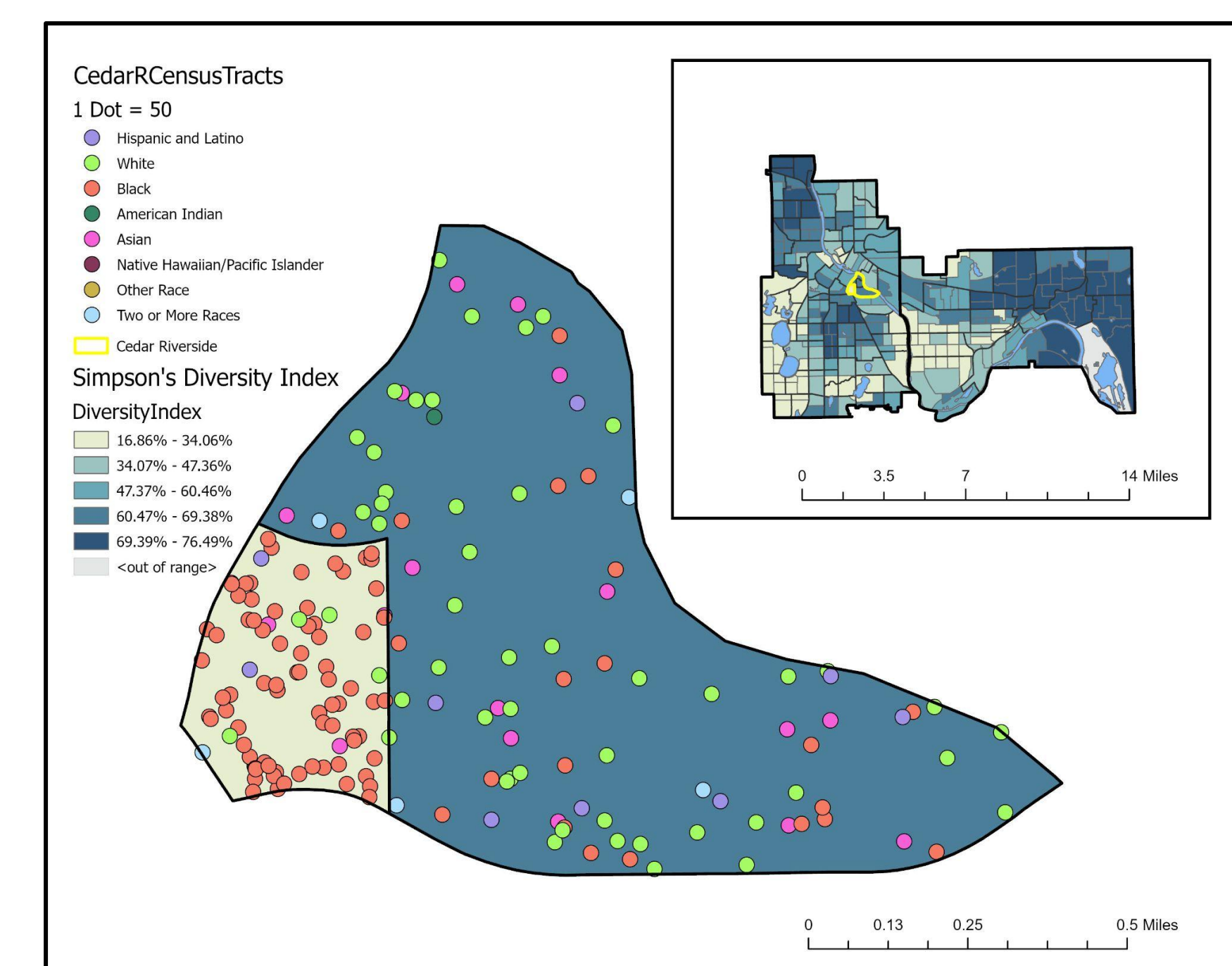
Methods

Following a literature review and discussion of measures of diversity, our group decided to use Simpson's Diversity Index (SDI) to quantify diversity. SDI represents the probability of randomly selecting two individuals of different demographic categories from a given population. An SDI score ranges from 0 to 1.0, with 0 being an absence of diversity and 1.0 being perfect diversity. SDI as a diversity index was originally developed in the biological sciences, but has increasingly become utilized in the social sciences, including by the U.S. Census Bureau when measuring diversity.

This project focuses on populations at the census tract level and calculates SDI based on these populations. This project also converts SDI into a percentage representing the percent change that two individuals are of different groups. We determined that high degree of diversity is considered a score of 0.7, or 70% chance of a diverse random selection, a high degree of diversity.
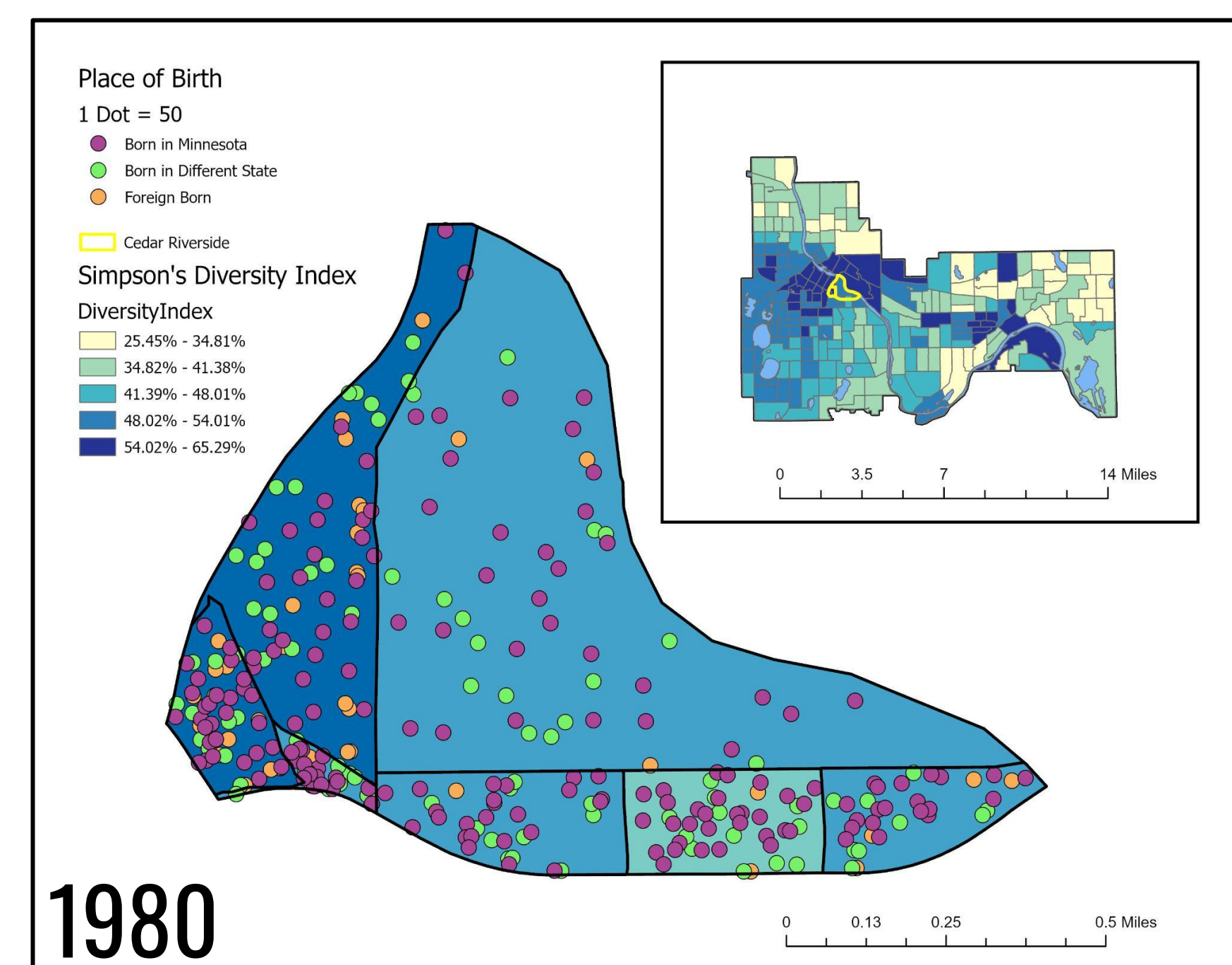
Additionally, this project focuses specifically on different groups within Cedar-Riverside by representing the population of different groups with multicolored dot density maps. Each point represents 50 residents of a specific category in a given tract.
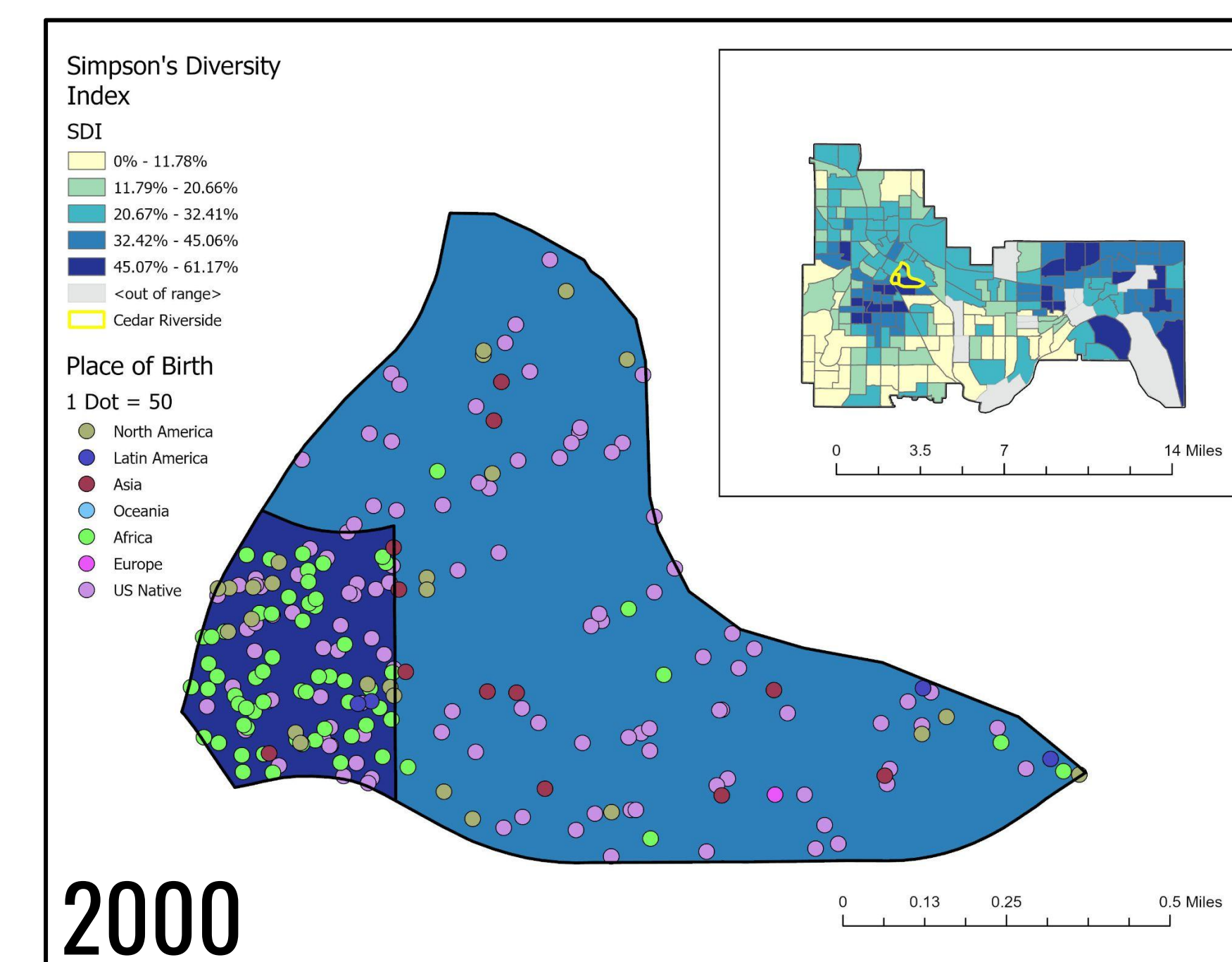

Map 1: Diversity of Educational Attainment in Cedar-Riverside and the Twin Cities using Simpson's Diversity Index
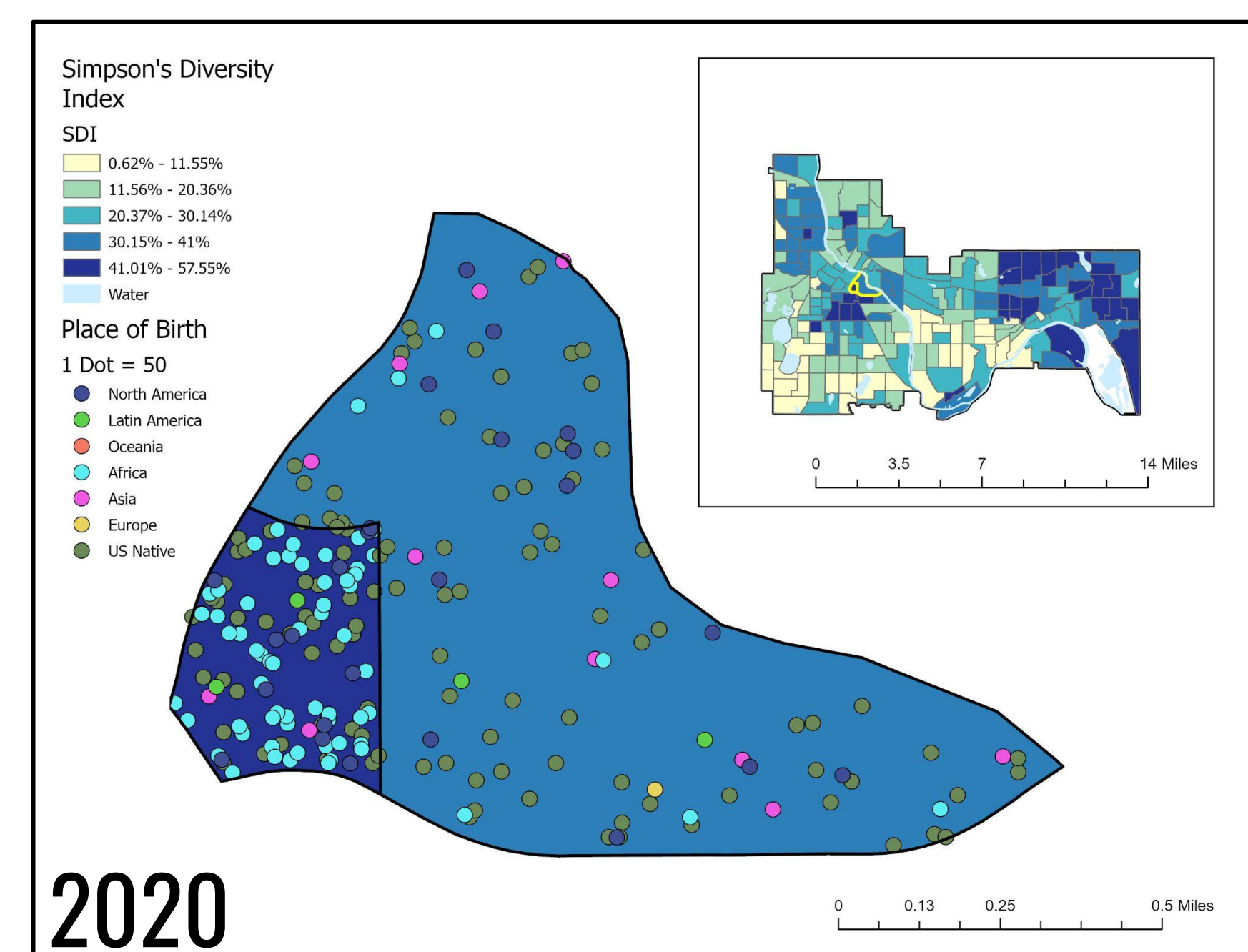

Map 3: Diversity of Place of Birth in Cedar-Riverside and the Twin Cities using Simpson's Diversity Index, 1980

Map 5: Diversity of Place of Birth in Cedar-Riverside and the Twin Cities using Simpson's Diversity Index, 2020

Map 2: Diversity of Race and Ethnicity in Cedar-Riverside and the Twin Cities using Simpson's Diversity Index

Map 4: Diversity of Place of Birth in Cedar-Riverside and the Twin Cities using Simpson's Diversity Index, 2000

Data Sources and References

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U.S. Census Bureau Annual Community Survey 2022 5 Year Estimates

Results

Educational Attainment

The Simpsons Diversity Index for educational attainment throughout the Twin Cities is displayed on Map 1. Darker shades of blue represent census tracts with higher diversity scores, meaning there is a higher chance of selecting two individuals at random with different levels of educational attainment. We notice that the most diverse areas in Minneapolis and Saint Paul are North Minneapolis, South central Minneapolis, and North and Northeast Saint Paul. Cedar Riverside contains census tracts that range from 54.99% to 64.22%, and unique symbology shows dot densities for each education level in this neighborhood. The least diverse census tracts are clustered around Southwest Saint Paul and Southwest Minneapolis.

Race and Ethnicity

Map 2 reflects the racial and ethnic diversity of Cedar-Riverside and the Twin Cities overall based on the Simpson's Diversity Index. Cedar-Riverside is currently comprised of two census tracts. The larger census tract has moderately high diversity, with it's SDI falling in the 60-69% range. The smaller censu tract has a significantly lower diversity score, with a 22% chance of a diverse random selection. This is due to the high concentration of Black, specifically East African residents in this tract. While the tract alone is not technically diverse, it does greatly influence the overall diversity of the Cedar-Riverside neighborhood.

Place of Birth

Maps 3-5 display a 40 year span of changes in resident's place of birth and the SDI based on place of birth. Map 3 represents 1980 Census data, Map 4 represents 2000 data, and Map 5 represents 2020 data. In each of these decades, no tract in the Twin Cities reaches a high degree of diversity in place of birth (70% or higher), but Cedar–Riverside consistently ranks as a low-moderate to moderately diverse. The smaller, Southwestern tract of Cedar-Riverside is particularly diverse in this category, as it contains Riverside Plaza, an affordable housing complex that has consistently housed immigrants since the 1970s. In Maps 4 and 5, specific region of birth is represented. The dot density overlays indicate that Cedar-Riverside has a mix of US and foreign born residents, with the Riverside Plaza tract in particular having higher populations of residents born outside the US.