

Urban & Rural Population Trends

INTRODUCTION & CONTEXT

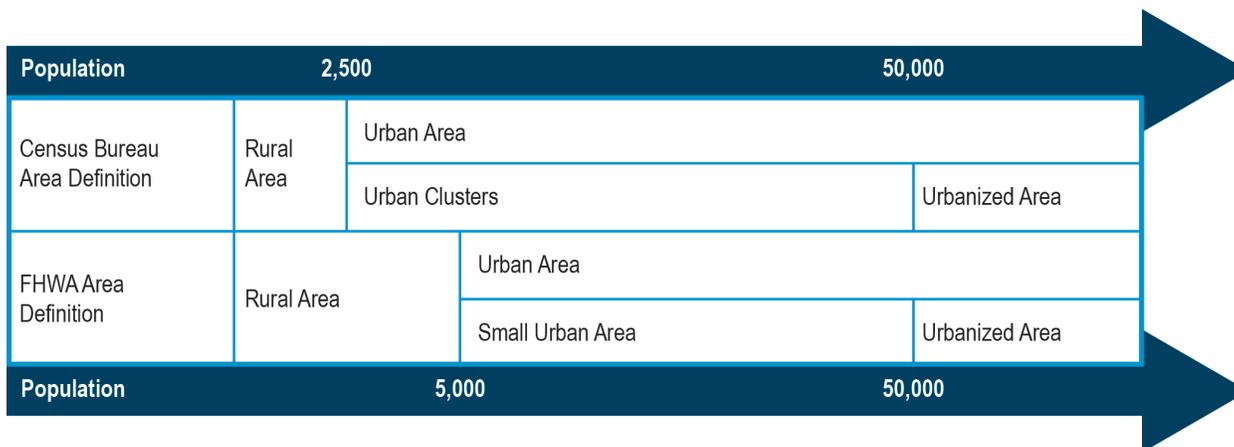
The United States as a whole is becoming more urban. The most recent census found that the growth in the country's urban population outpaced the rest of the nation by 20 percent. As of 2010, 80.7 percent of the U.S. population resides in an urban area – densely developed residential, commercial, and other nonresidential areas– up from 79.0 percent in 2000.¹ Like the rest of the country, Minnesota is becoming increasingly urban, and not only in the Twin Cities metropolitan area. While the percentage of Minnesotans living in the Twin Cities is growing, so too is the percentage of Minnesotans living in Greater Minnesota's cities and towns, leading to a larger urban population statewide. According to the 2010 census, 73.3 percent of Minnesotans live in urban areas, making it the 28th most urban state out of the 50 states, District of Columbia, and Puerto Rico.²

Before discussing how Minnesota's population distribution has changed and is likely to continue changing in the future, it is important to discuss what exactly makes a place "urban". A variety of different government organizations offer definitions of what the threshold of an urban community is, often making it difficult to understand what exactly constitutes an urban community based on the origins of data. Beyond population-based definitions, the character, feel, or context of a place or mindset of community members may make the smallest of towns feel like an urban space – adding further complexity to the debate. This paper focuses on measurable aspects, including historic population data and future projections for population growth to offer insights into where Minnesotans are living and how MnDOT should focus on serving the state's population.

What is an Urban Area?

According to the Federal Highway Administration, the definitions of urban and rural areas are as follows: "urban areas are considered to have dense development patterns, while rural areas are considered to have sparse development patterns."³ Like many federal agencies, the FHWA uses the urban and rural distinction to determine funding eligibility for their programs. As allowed by law, the FHWA developed its own definitions of urban and rural separate from on those of the Census Bureau. The population threshold for an urban area is higher under the FHWA definition than under that of the Census Bureau, 5,000 compared to 2,500.⁴ The differences between the two sets of definitions are summarized in Figure 1.

Figure 1: Urban Area Types Defined by Population Range



¹ https://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html

² Census data file analysis

³ http://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/section06.cfm

⁴ 23 U.S.C. 101(a)(33)

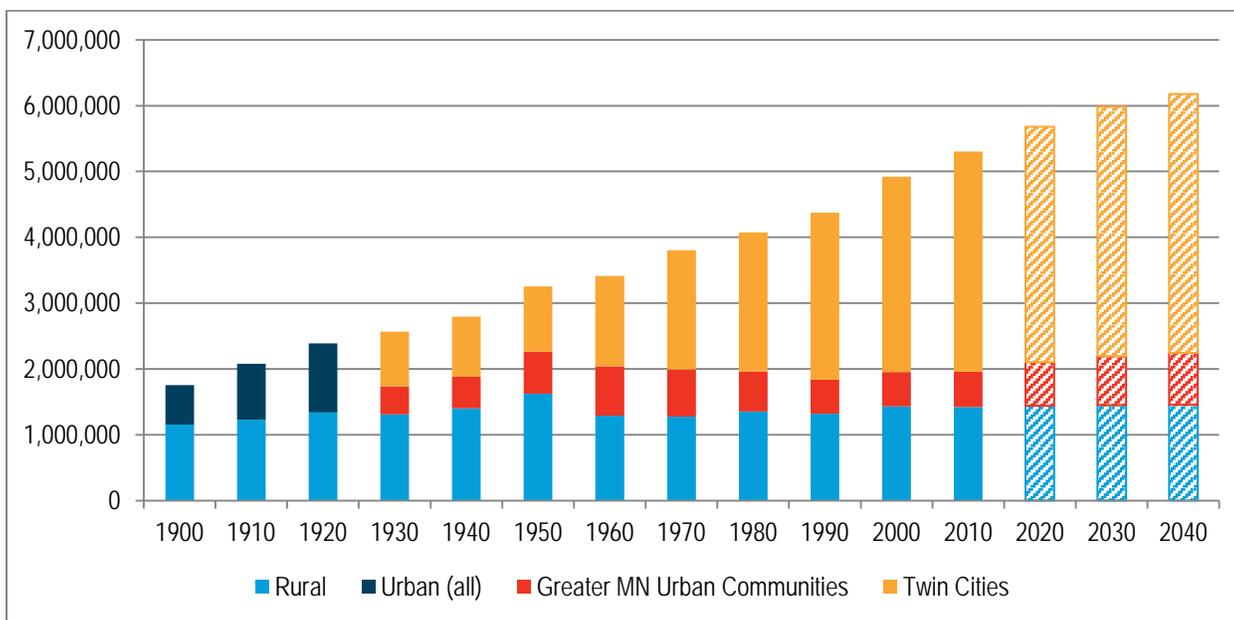
Federal transportation legislation allows states to adjust the census urban boundaries (at the FHWA threshold of 5,000 and above) for transportation purposes. The only official requirement in this adjustment process is that the adjusted area includes the entirety of the urban area as determined by the Census.⁵ These areas are called “adjusted urban area boundaries.”⁶

Minnesota’s Gradual Urbanization

HISTORIC POPULATION TRENDS

Understanding how Minnesota’s population has been split between the Twin Cities, Greater Minnesota urban communities, and rural areas in the past provides clues as to trends in where people in Minnesota are choosing to live. The following chart shows the total number of people in Minnesota living in Twin Cities, Greater Minnesota urban settings and rural areas, as defined by the US Census. Communities with populations of greater than 2,500 people were considered urban for the purposes of these charts. Both figures demonstrate an ongoing trend toward more Minnesotans living in urban areas throughout the state.

Figure 2: Minnesota’s population distribution, 1900 – 2040⁷



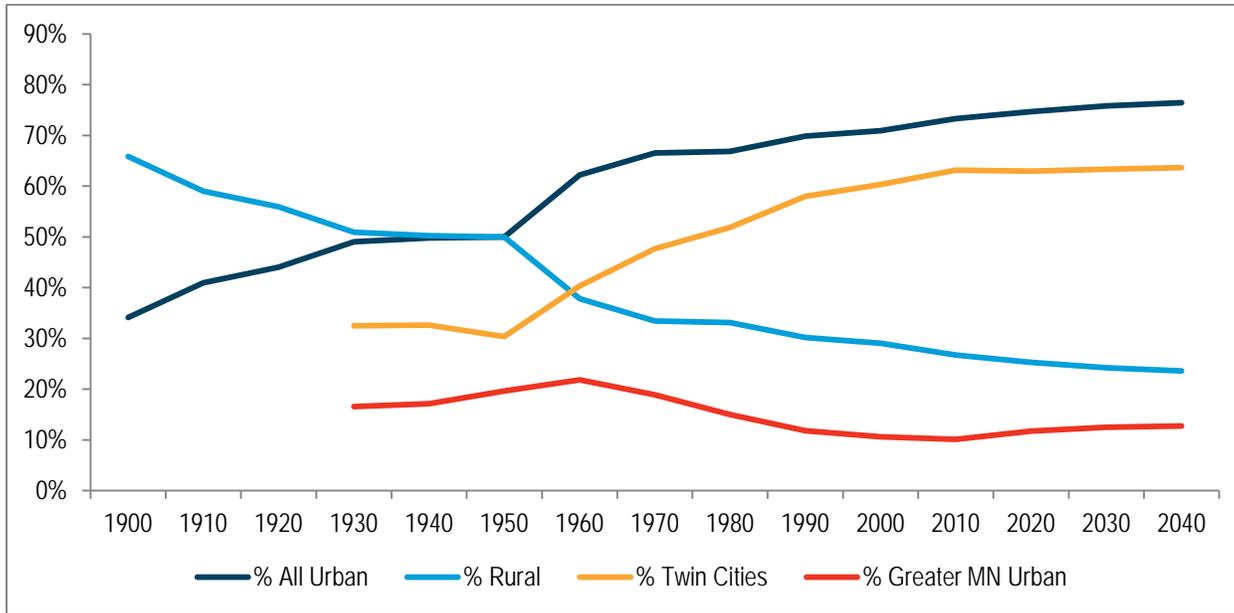
The total population of Minnesotans living in rural areas has remained relatively consistent since 1900. On the other hand, Minnesota’s urban population has consistently grown since the beginning of the 20th Century, making up a larger and larger percentage of the state’s total population. Greater Minnesota’s urban population is projected to grow after contracting from 2000 to 2010, while the Twin Cities’ population is projected to grow the most. The percentage split between Minnesotans living in urban and rural areas can be seen in Figure 3.

⁵ 23 USC 101(a) (36) - (37) and 49 USC 5302(a) (16) - (17))

⁶ [FHWA Functional Classifications, 2013](#)

⁷ US Census Bureau

Figure 3: Percentage of Minnesota's total population living in urban and rural areas, 1900 – 2010⁸



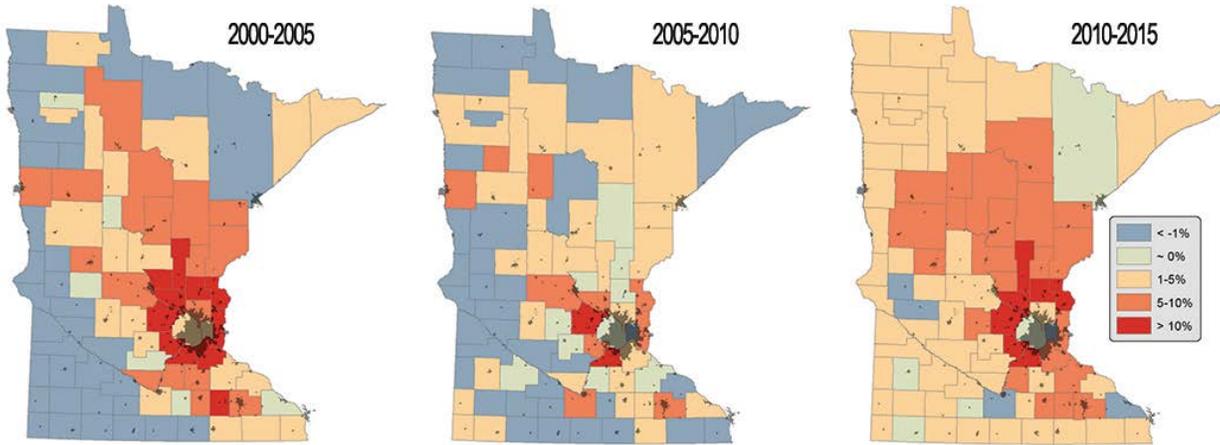
CURRENT POPULATION

According to the 2010 Census, 73.3 percent of Minnesotans live in an urban area with 2,500 or more people and 58 percent live in an urbanized area with 5,000 or more people. There were 111 urban areas in Minnesota using the U.S. Census Bureau definition (population of 2,500 or more), 59 of which qualified as an urban area using the FHWA definition (population of 5,000 or more). Of these, eight are urbanized areas (population of 50,000 or more). Mankato is the most recent area to join this classification as of the 2010 census. For transportation purposes this is important because at this threshold it becomes a metropolitan planning organization, and is eligible for different types of transportation funding. The most recent urban area boundaries are shown as the shaded area in the maps on the following page. Only urban areas with a population of 5,000 and above are shaded in grey on the maps. By using the population classification system established for counties and by reviewing where shaded urban areas are, the maps provide insight into which urban areas are growing fastest in Minnesota.

Between 2005 and 2010, the growth in the central area of the state slowed; it then picked up again after 2010. In addition, there was a notable shift in the population growth around the turn of the decade as large areas of greater Minnesota reversed their population loss. Development has continued on the suburban fringe around the Twin Cities. As can be seen in the maps on the following page, the ring of counties around Hennepin and Ramsey counties, the core of the Twin Cities metropolitan area, grew at a significantly faster rate than the rest of the state.

⁸ US Census Bureau

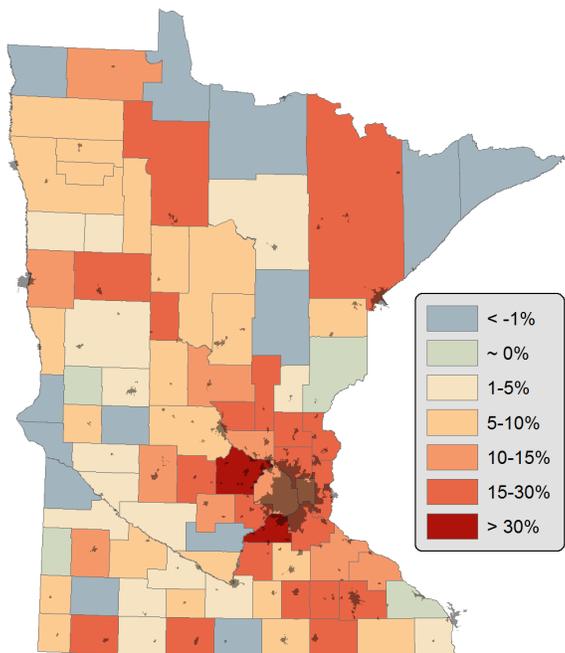
Figure 4: Percent change in county population: 2000-2005, 2005-2010, 2010-2015



POPULATION PROJECTIONS

The state demographer projects that majority of Minnesota's counties will grow in population in the next 30 years. There is a concentrated area of growth around the Twin Cities Metro area. In addition, most counties with higher growth projections (15% and higher) encompass a sizeable urban area.

Figure 5: Projected percent change in county populations, 2015 - 2045



Given the strong historical trend of Minnesota's population becoming increasingly urban, it is fair to project that growth in Minnesota's population will continue to occur mostly in in urban areas. This includes urban areas both inside and outside the 7-county Twin Cities metropolitan area. Continued attention should be paid to how smaller communities around Minnesota grow, and whether or not they see an influx of residents from surrounding rural areas and from out of the state.

Viewing population projections in terms of total population change provides another important perspective. Figure 6 shows which parts of the state should be planning for significant influxes of people in the next thirty years.

Figure 6: Total projected population change by county, 2015 – 2045

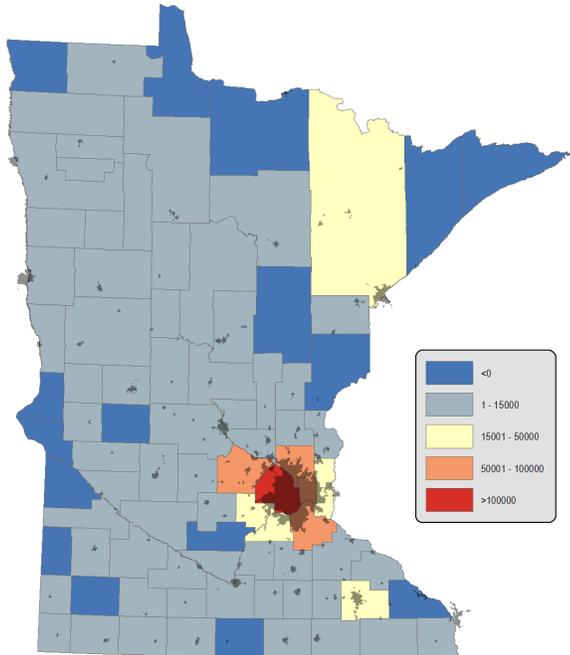
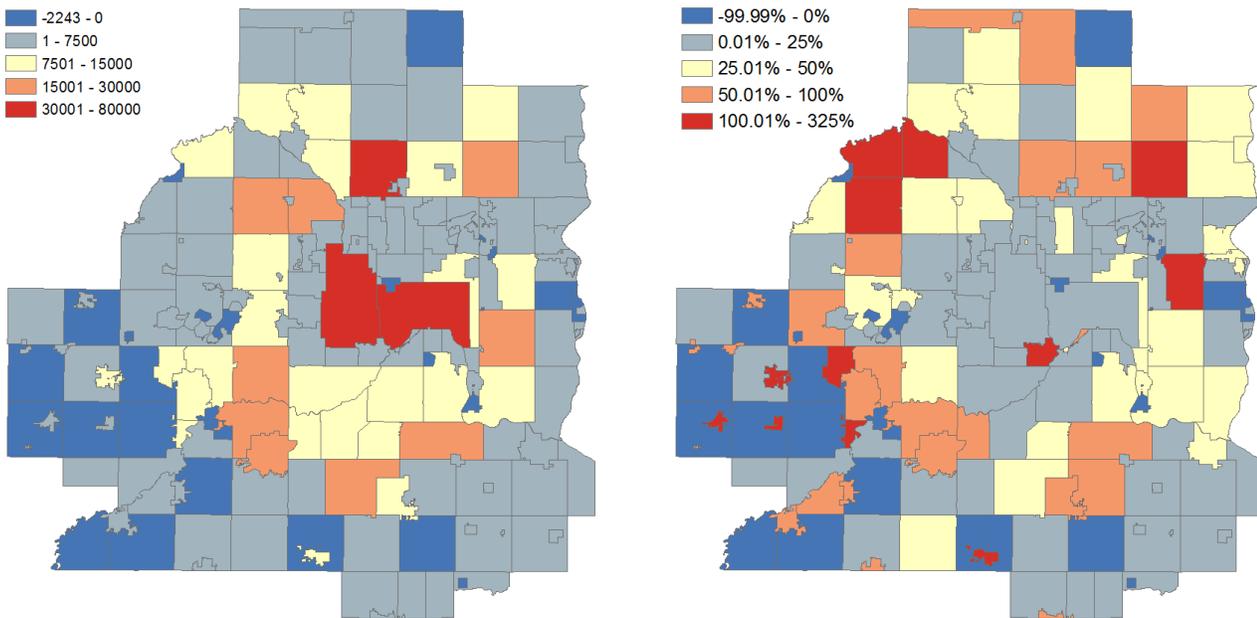


Figure 7: Total projected change & percent change in population by city in the Twin Cities Metro, 2010 – 2040



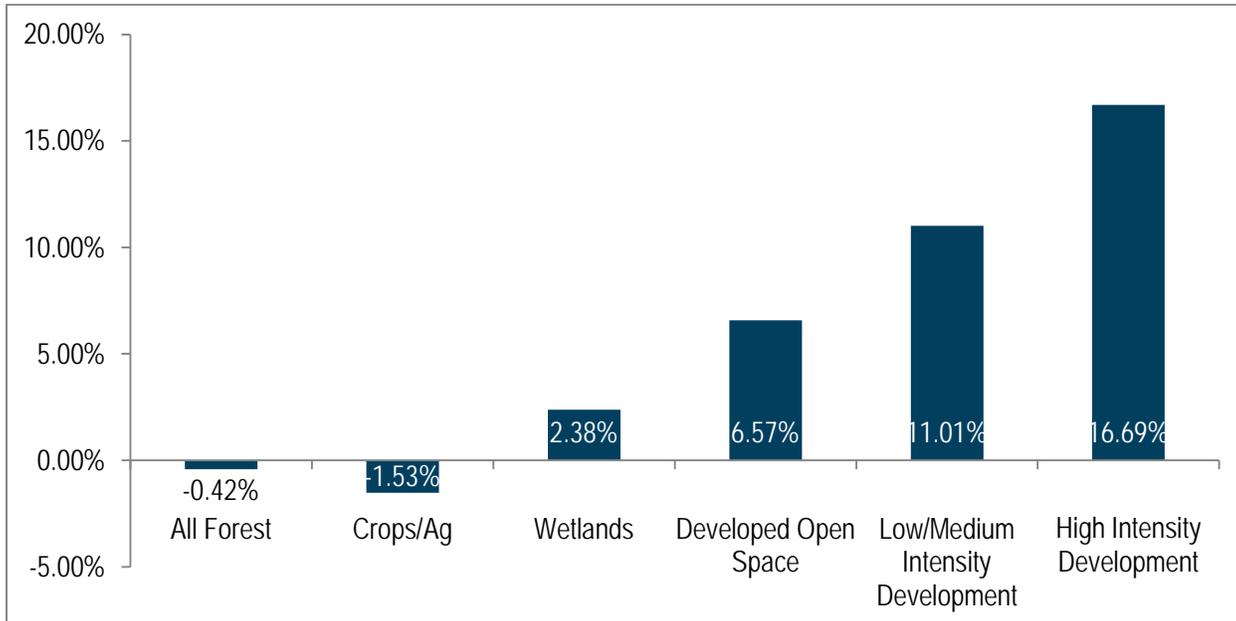
Significant increases in the number of people and households who call the Twin Cities home will require additional infrastructure improvements to maintain current levels of mobility.

URBAN LAND COVER

An important parallel consideration to where people are choosing to live in Minnesota is how those choices affect land development. The National Land Cover Database has catalogued changes in land use every 5 years using data collected from Landsat satellites. These satellites use infrared imagery to determine surface permeability – urban land uses have low permeability and thus result in greater levels of run-off, more significant urban

heat island effects and other environmental impacts. Four different categories of urban land cover are included in the NCLD: developed open space (large lot single-family homes & parks), low intensity development (single-family housing), medium intensity development (single-family housing), and high intensity development (apartments, row houses, commercial/industrial).⁹ The change in urban land cover across Minnesota can be estimated by comparing the data from each data set (2001, 2006, and 2011), and is displayed in Figure 8.

Figure 8: Change in urban land cover from 2001 to 2011¹⁰



Large increases in low and medium intensity development suggest that most of the urbanization occurring in Minnesota is home to traditional suburban styles featuring single-family homes on larger lots, or other land uses that do not result in full coverage of lots with impermeable surfaces. While the percentage increase of high-intensity development is greater, it still constitutes a smaller total area than low or medium intensity development in Minnesota. This has significant implications for transportation planning as the predominant mode of choice in this style of development is travel by automobile. Continued development of this character will have impacts on the state's transportation system, and will require new transportation infrastructure to serve it.

Development in Minnesota comes largely at the expense of agricultural land, forests, and natural grassland. While there are more wetlands in Minnesota as of 2011, many of these are man-made and do not provide the same level of ecological benefits that naturally occurring wetlands do. More information can be found in the Environmental Quality paper. Additionally, expansion beyond traditionally urban areas has the potential to impact transportation facilities like airports that were previously removed from the urban fabric.

Urban areas often have more multimodal transportation needs than rural areas due to of several factors, including lower rates of car ownership, higher levels of congestion, denser land use patterns, and availability of non-automobile transportation options. More information on this topic, including the differences between Minnesota's urban and rural areas, can be found in the Transportation Behavior trend analysis paper.

⁹ [Homer et. al., 2015](#)

¹⁰ [Homer et. al., 2015](#)