



Bismarck-Mandan MPO Monitoring Report

November 2025 Update

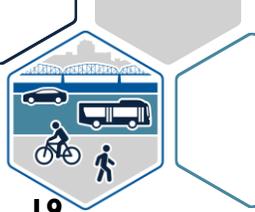


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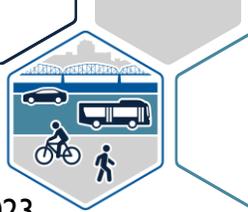
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Bismarck-Mandan MPO Monitoring Report Update

Introduction

What is the Bismarck-Mandan Metropolitan Planning Organization?

[The Bismarck-Mandan Metropolitan Planning Organization \(MPO\)](#) provides a forum for public officials, citizens, and other interested groups to establish policies and plans for effectively addressing various metropolitan transportation issues. The MPO is responsible for transportation project planning and programming in the region using federal transportation funds. The MPO planning area is approximately 394 square miles, with the geographic coverage including the Cities of Bismarck, Lincoln, and Mandan and portions of Burleigh and Morton Counties.

The MPO and its member jurisdictions work to carry out a performance-based and multimodal transportation planning process that is *continuing, cooperative, and comprehensive*. The ongoing coordination among the MPO, member agencies, and federal transportation agencies allows for efficiently managing public transportation funds while encouraging public participation in the metropolitan transportation planning process.

Two committees provide direction to the MPO on technical and policy matters:

- **Technical Advisory Committee (TAC):** Represents the MPO's member cities and counties, the North Dakota Department of Transportation (NDDOT), the Federal Highway Administration (FHWA), and the local transit agency. TAC is responsible for providing recommendations to assist the Policy Board in the decision-making process for the MPO.
- **Policy Board:** Represents the MPO's member cities and counties and is the decision-making body of the MPO.

The Bismarck-Mandan MPO Bike and Ped Subcommittee supports the MPO's TAC and Policy Board by advising these committees on matters related to safe, accessible active transportation in the MPO region. Members include professionals in community planning fields, engineering fields, local parks and recreation districts, law enforcement, public health, and NDDOT.



What is the Monitoring Report?

The Monitoring Report provides a comprehensive understanding of the existing conditions and trends influencing transportation in the region. The Report is updated every 1 to 3 years to reflect changes impacting the transportation system. This document considers three topic areas:

<p>People + Housing</p> 	<p>Current characteristics of the MPO region's population and housing, including trends and projections of future growth.</p>
<p>Employment</p> 	<p>Current characteristics of the MPO region's employment, including trends and projections of future growth.</p>
<p>Travel</p> 	<p>Current characteristics of the MPO region's multimodal transportation system and recent trends impacting travel in the region.</p>



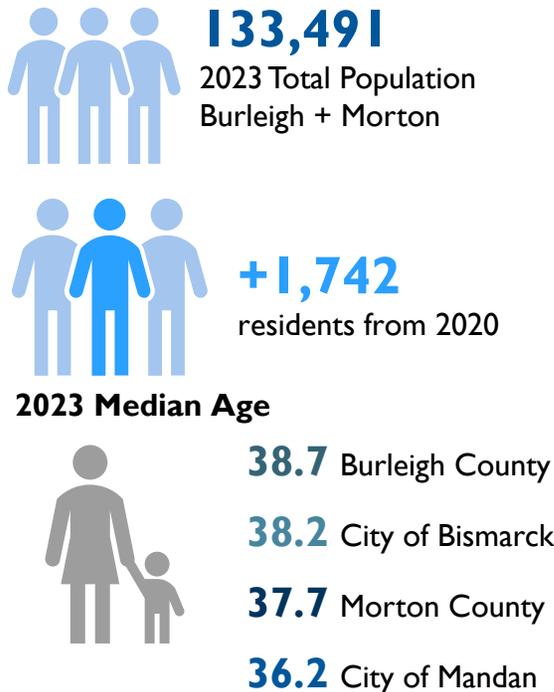
Section I – People + Housing

This section provides an overview of the current characteristics of population and housing, including trends and projections.

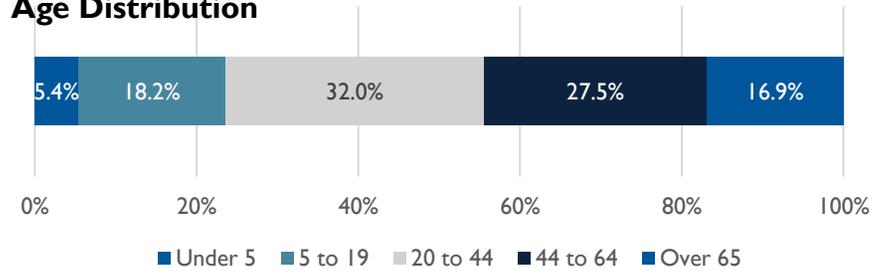
Existing Characteristics – People

Figure I shows key characteristics of demographics for Burleigh and Morton Counties, as well as jurisdictions within these counties that represent the Bismarck-Mandan MPO. The figures refer to Burleigh and Morton counties combined, unless otherwise noted. Population trends shape travel demand, commuting patterns, and infrastructure requirements, and provide insight into how a region is evolving and where future transportation investments may be needed.

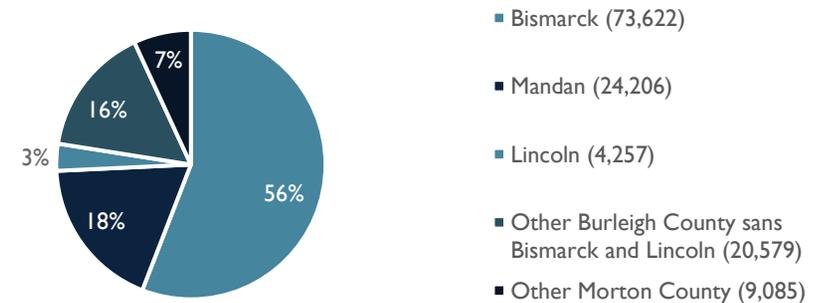
Figure I: Demographics Profile for Burleigh and Morton Counties



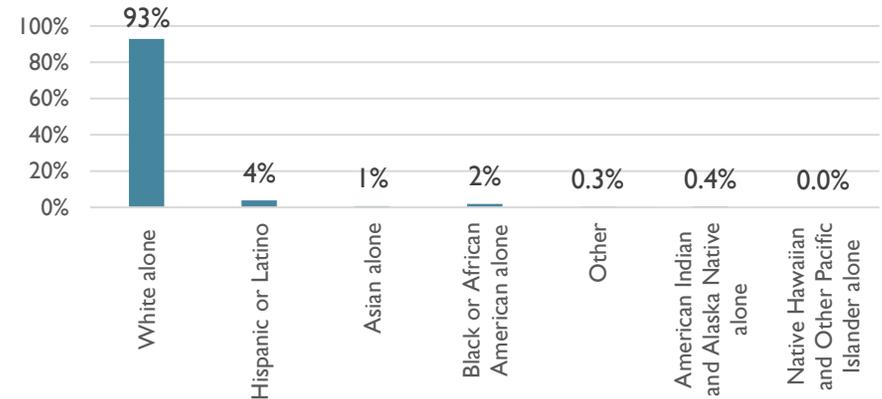
Age Distribution



2020 Population Breakdown by Jurisdiction



2023 Racial/Ethnic Composition

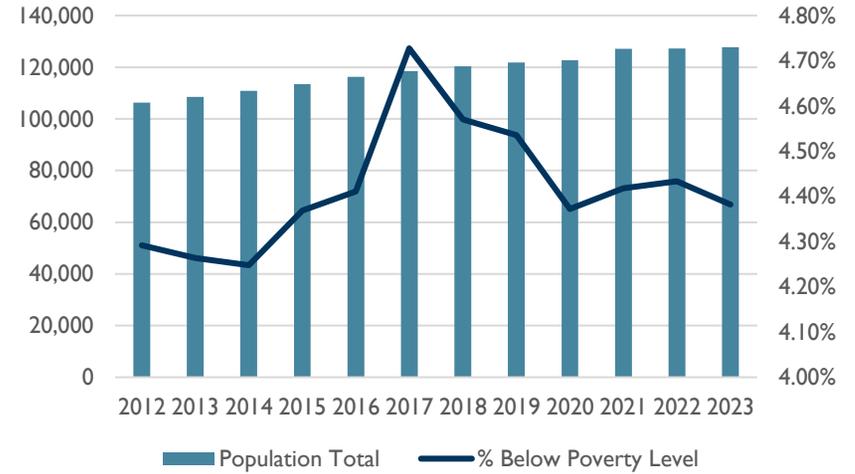




The U.S. Census Bureau defines poverty level using a set threshold that is determined nationally and adjusted for family size and age of householders. **Figure 2** shows the percentage of population in Burleigh and Morton counties living below the poverty levels from 2014 to 2023, with the total population for each year shown in comparison.

Figure 3 shows the poverty levels in 2023 for the population in the Bismarck-Mandan MPO. Overall, 5.3 percent of the MPO’s total population was living below the poverty level. In comparison with the state of North Dakota, Bismarck-Mandan residents experience less poverty than residents across the state, of which 7.5 percent are living below the poverty level .

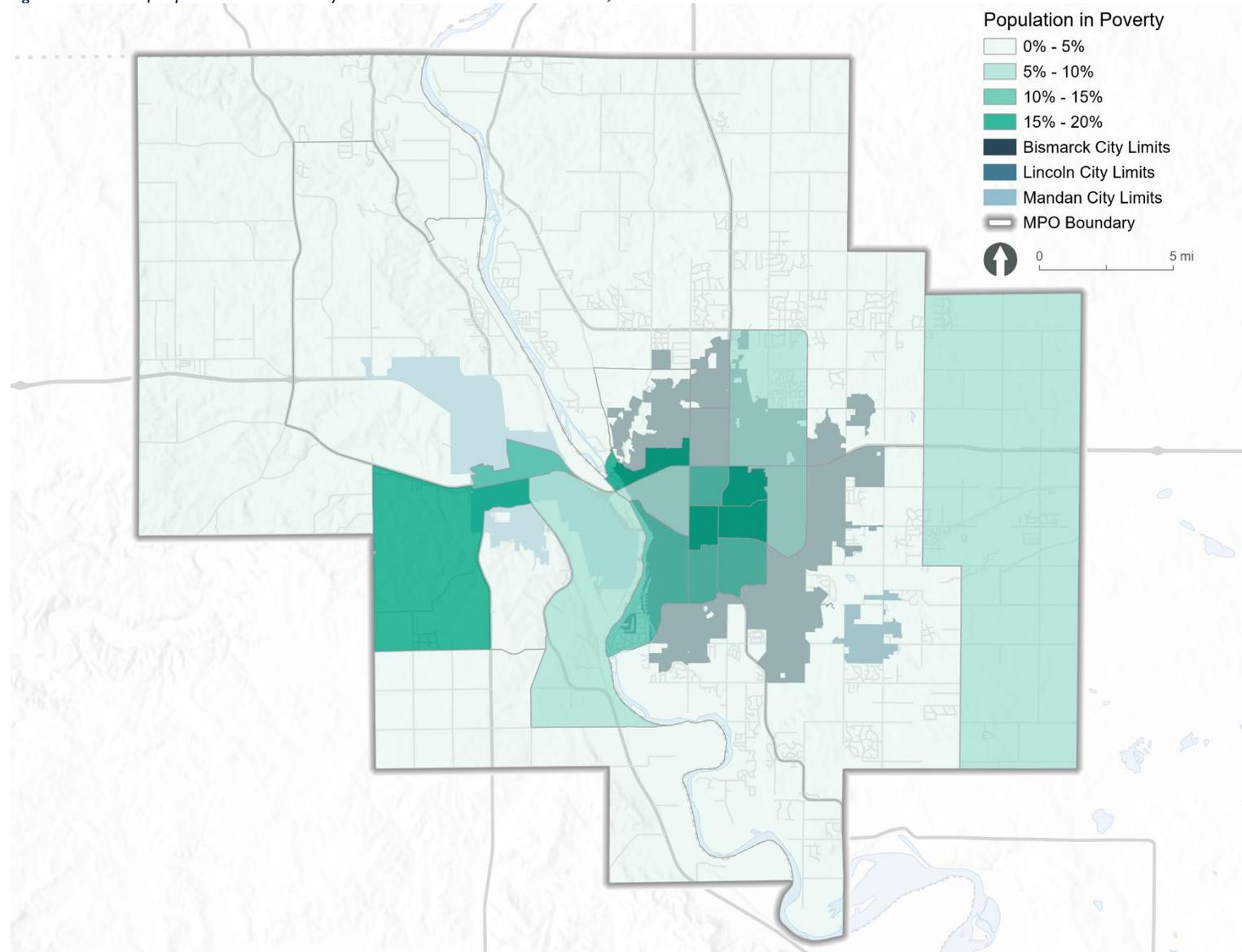
Figure 2: Percent of Population Below the Poverty Level in Comparison to Burleigh and Morton Counties’ Total Population



Source: U.S Census Bureau, ACS 5-Year Estimates 2023



Figure 3: Percent of Population Below Poverty Level in the Bismarck-Mandan MPO, 2023



Source: U.S. Census Bureau, ACS 5-Year Estimates 2023



Recent Trends

Historic Growth Rates

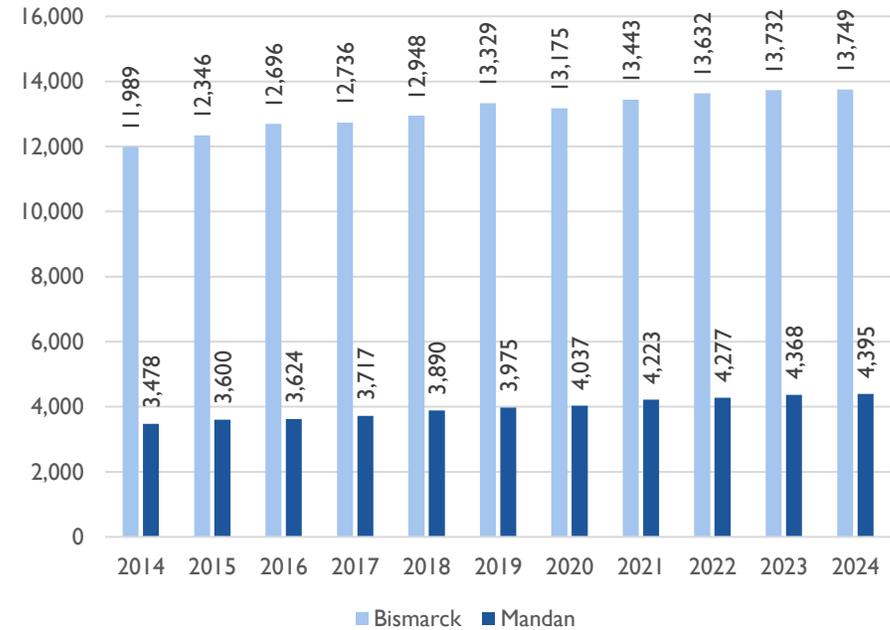
The Bismarck-Mandan region has experienced consistent growth over the past several decades. Data from the [Arrive 2050 Forecast: Travel Demand Model Socio-Economic Update](#) (TDMSE) shows that Burleigh and Morton Counties have outpaced national growth rates during key periods, particularly between 2010 and 2020. By 2050, it is projected that the region’s population will grow to around 169,000 people. This growth reflects regional economic stability and quality of life attracting more residents to the area each year.

School Enrollment

Data from the North Dakota Department of Public Instruction show steady increases in enrollment across all MPO-area public schools from 2014 to 2024, during which time combined enrollments for Bismarck and Mandan public schools increased from nearly 15,467 students in 2014 to 18,144 in 2024. Similar to the annual growth rate, school enrollment dropped off in the wake of the COVID-19 pandemic, with enrollments dropping almost to 2014 levels. However, school enrollment quickly recovered, and 2024 saw the highest enrollment in the 11-year period.

Figure 4 shows the total school enrollment for the Bismarck and Mandan public school districts between 2014 and 2024.

Figure 4: School Enrollment for MPO-Area Public Schools (2014–2024)



Source: North Dakota Department of Public Instruction, Enrollment History Public School Districts



Projections

Future Land Use and Regional Growth

The 2050 Travel Demand Model projects continued growth for population and households across Burleigh and Morton Counties. These projections are based on anticipated land use changes, economic development, and regional planning efforts.

Population Projections

Population projections developed to support the Travel Demand Model show sustained growth through 2050. **Table I** lists the population in 2023 and projected population totals and growth rates for Burleigh and Morton Counties for 2030 and 2050.

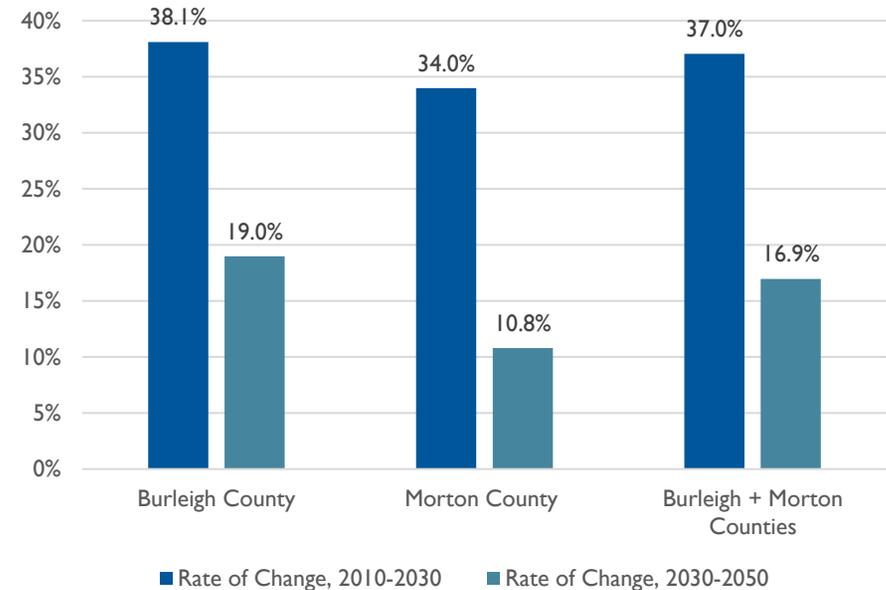
Table I: Past Population and Population Projections by County

County	2023	2030	2050
Burleigh	98,986	108,781	129,423
Morton	33,479	35,789	39,650
Total	132,465	144,570	169,073

Source: Bismarck-Mandan MPO, 2050 TDMSE Report; U.S. Census Bureau

As shown in **Figure 5**, Burleigh and Morton Counties has experienced a period of stronger growth starting in 2010, and anticipated to continue through 2030, which can be attributed to the oil boom in the early 2010s. Growth is still expected between 2030 and 2050 but at a slower rate than previous years.

Figure 5: Population Projections by County, 2010–2050



Source: Bismarck-Mandan MPO, 2050 TDMSE Report; U.S. Census Bureau

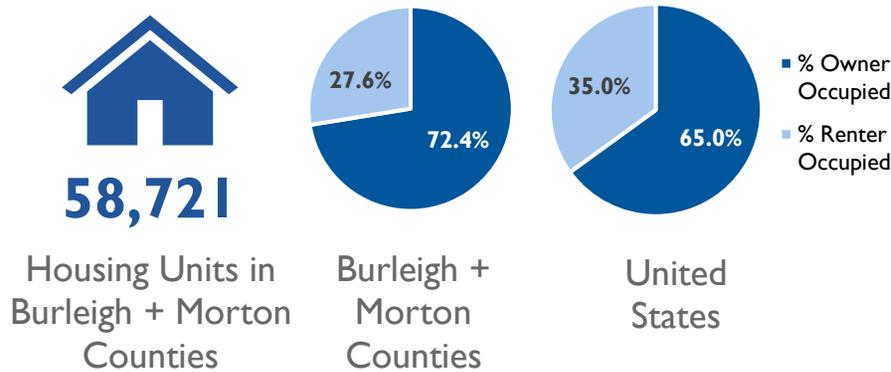


Existing Characteristics – Housing

This section provides a snapshot of current housing characteristics in the Bismarck-Mandan MPO. Housing data is a key input in transportation planning because it influences travel behavior, trip generation, and infrastructure needs. Characteristics such as housing tenure, vacancy rates, and household size offer insight into regional dynamics to inform future planning and policy.

Figure 6 shows a comparison of housing indicators across the MPO and the United States. The MPO for the figures refers to Burleigh and Morton Counties combined.

Figure 6: Housing Profile for Burleigh and Morton Counties



Average Household Size

Burleigh + Morton Counties	United States
2.39	2.49

2023 Median Household Value

Burleigh + Morton Counties	United States
\$282,150	\$303,400
+ \$38,300 from 2020	+ \$73,600 from 2020

2023 Median Rent (3 bedroom)

Burleigh + Morton Counties	United States
\$1,337	\$1,500
+ 144 from 2020	+ 277 from 2020



307
Number of building permits issued in 2024

283 New single-family permits issued

24 New multifamily permits issued (70 units)



Recent Trends

Travel Demand Model and Socioeconomic Projections

In general, Bismarck-Mandan is one of the few metropolitan areas expected to continue to see growth now that economic conditions have stabilized across the state. The TDMSE report projects housing needs into 2050, developed on a medium growth scenario, which yields an average 1.1 percent annual growth rate. By 2050, the TDMSE report estimates the following figures for household growth data in the Bismarck-Mandan MPO region:

- 82,720 households
- 2.2 people per household
- Renter households will double in size, growing to 28,137 by 2050
- Single-person and two-person households will grow the most, with the number of households with more than three people decreasing by 2050

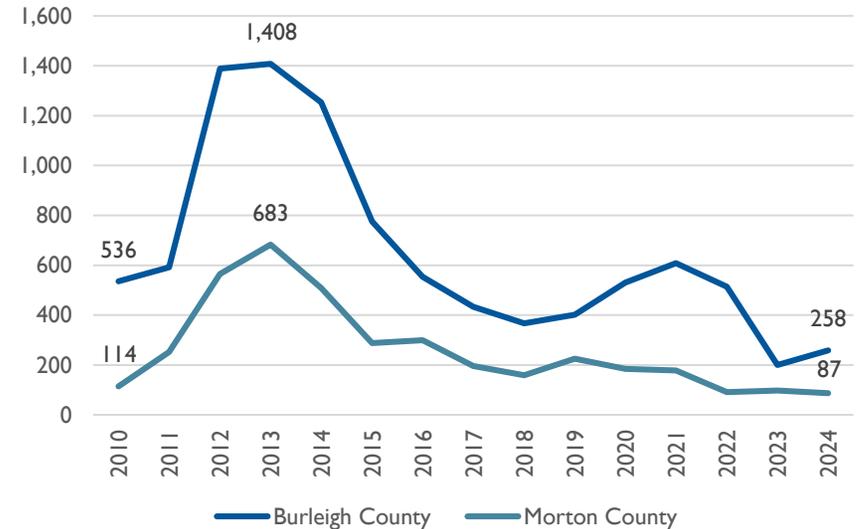
Table 2 shows that housing will continue to grow in the region, as population is projected to increase through 2050. However, as historical permit trends have shown, this growth is not as aggressive as what occurred between 2011 and 2015. According to **Figure 7**, building permits have returned to levels seen before the oil boom of the 2010s and will continue to see slight growth through 2050.

Table 2: Projected Households for the Bismarck-Mandan MPO (Medium Growth Scenario)

2021	2035	2050
56,130	72,870	82,720

Source: Bismarck-Mandan MPO, 2050 TDMSE Report

Figure 7: New Housing Permits by County, 2010–2024



Source: Federal Reserve Bank of St. Louis, New Private Housing Structures Authorized by Building Permits for Burleigh County, ND



2022 North Dakota Statewide Housing Needs Assessment Projections

The 2022 North Dakota Statewide Housing Needs Assessment forecasts future housing needs through 2027, modeled off recent socioeconomic conditions and analysis of historical patterns. The primary findings relevant to the Bismarck-Mandan MPO are as follows:

- The region surrounding Bismarck is projected to need 4,716 housing units by 2027, a 6 percent increase from 2022.
- The number of householders aged 65 and older in Region VII is expected to grow by 25.3 percent between 2022 and 2027, highlighting housing demands for older generations.
- Between 2012 and 2022, average verified sale prices for residential properties in Mandan increased by 63 percent and in Bismarck by 46 percent, contributing to declining homeownership rates among moderate-income households.

For Region VII, where Bismarck and Mandan are located, housing needs based on projected population change by age was calculated. As shown in **Table 3**, it is estimated that Region VII will grow to 81,663 households by 2027. This region encompasses 10 total counties, including Burleigh and Morton, so housing projections will be higher than other local estimates.

Table 3: Statewide Housing Needs Assessment Projected Housing Needs, 2022–2027

2022	2027
76,947	81,663

Source: North Dakota Housing Finance Agency, 2022 North Dakota Statewide Housing Needs Assessment

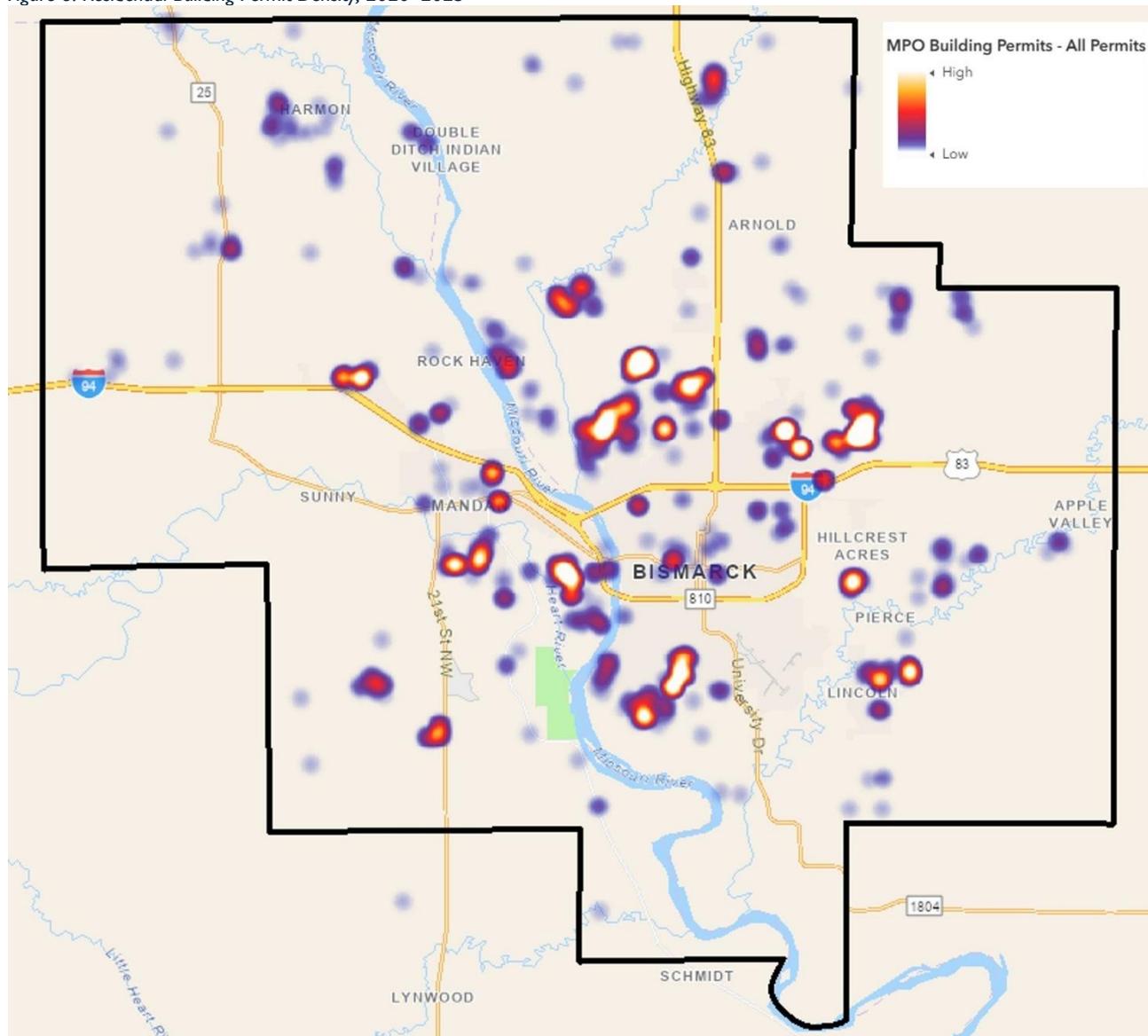
Recent Trends Compared to Area Projections

Between the Bismarck-Mandan MPO studies and the 2022 North Dakota Statewide Housing Needs Assessment, it is anticipated the MPO region will continue to see significant housing growth through 2050. Projections from the TDMSE report may be a more suitable estimate because it is more consistent with recent growth trends and the numbers were calculated using a growth rate similar to growth seen in recent years. However, projections through 2050 may not be accurate, considering how national trends such as the COVID-19 pandemic affected the local housing market in Bismarck-Mandan.

Figure 8 shows the location of residential housing permits issued between 2020 and 2025. The distribution of housing permits in this period reflects a similar pattern to projected housing growth by transportation analysis zone (TAZ) in 2050, as shown in **Figure 9**.



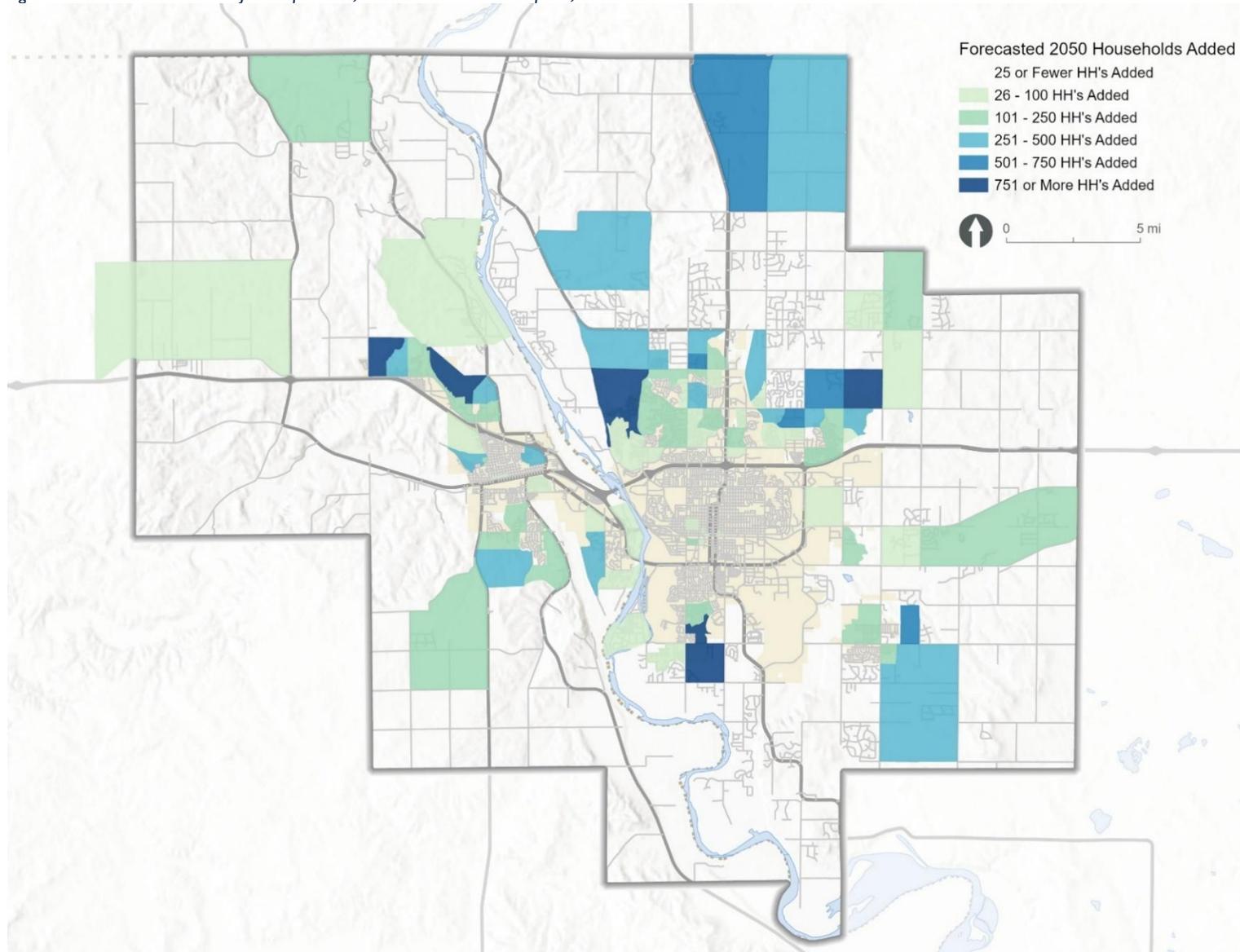
Figure 8: Residential Building Permit Density, 2020–2025



Source: City of Bismarck



Figure 9: Household Growth Projection per TAZ, Medium Growth Assumption, 2050



Source: Bismarck-Mandan MPO, 2050 TDMSE Report



Section 2 – Employment

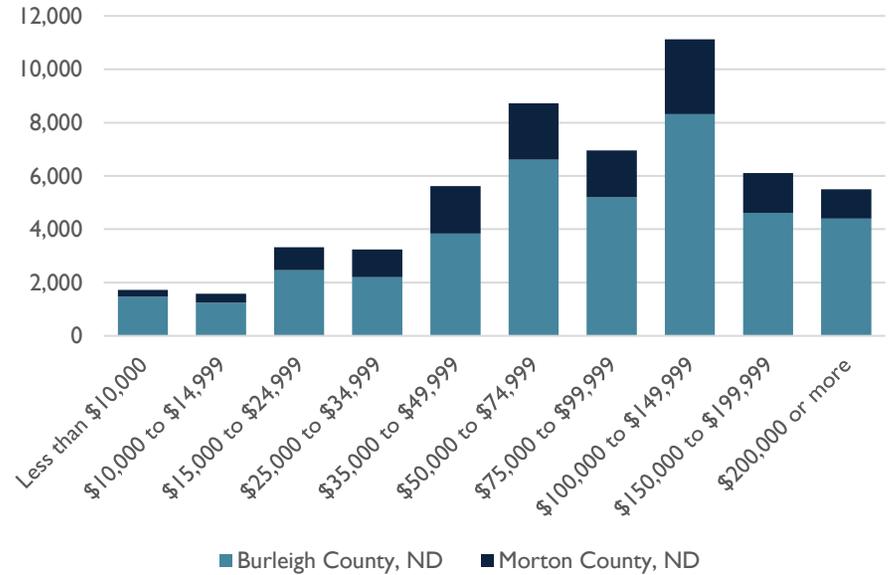
Job locations and business types play a key role in shaping how people travel across a region. Workplaces attract not only employees but also customers and other visitors, depending on the nature of the business. For example, retail and service businesses usually generate more traffic than industrial facilities. This chapter looks at where jobs are concentrated and how those patterns affect travel demand in the region.

Existing Characteristics

Labor-related information for the Bismarck-Mandan MPO region was collected from the U.S. Census Bureau. **Figure 10** shows the distribution of household income for Burleigh and Morton Counties combined. On average, residents of Burleigh and Morton Counties have higher household income than residents across the state of North Dakota.

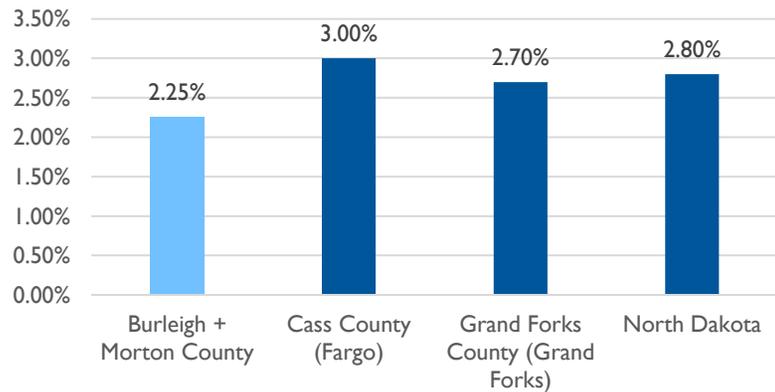
Figure 11 shows unemployment rates for Burleigh and Morton Counties in comparison to similar communities in the state and North Dakota as a whole. Unemployment rates are significantly lower in Burleigh and Morton Counties compared to other regions and the state. For further comparison, the United States reported a 5.2 percent unemployment rate in 2023.

Figure 10: Household Incomes for Burleigh and Morton Counties Combined, 2023



Source: U.S. Census Bureau, ACS 5-Year Estimates 2023

Figure 11: Unemployment Rate for Burleigh and Morton Counties and Other North Dakota Communities, 2023



Source: U.S. Census Bureau, ACS 5-Year Estimates 2023



Figure 12 compares the percentage of employees by industry sector for Burleigh and Morton Counties and the state of North Dakota. The five leading industries for the two counties include the following:

- Health care and education (24.8 percent)
- Retail trade (11.8 percent)
- Arts, entertainment, hospitality (8.9 percent)
- Construction (8.0 percent)
- Public administration (7.9 percent)

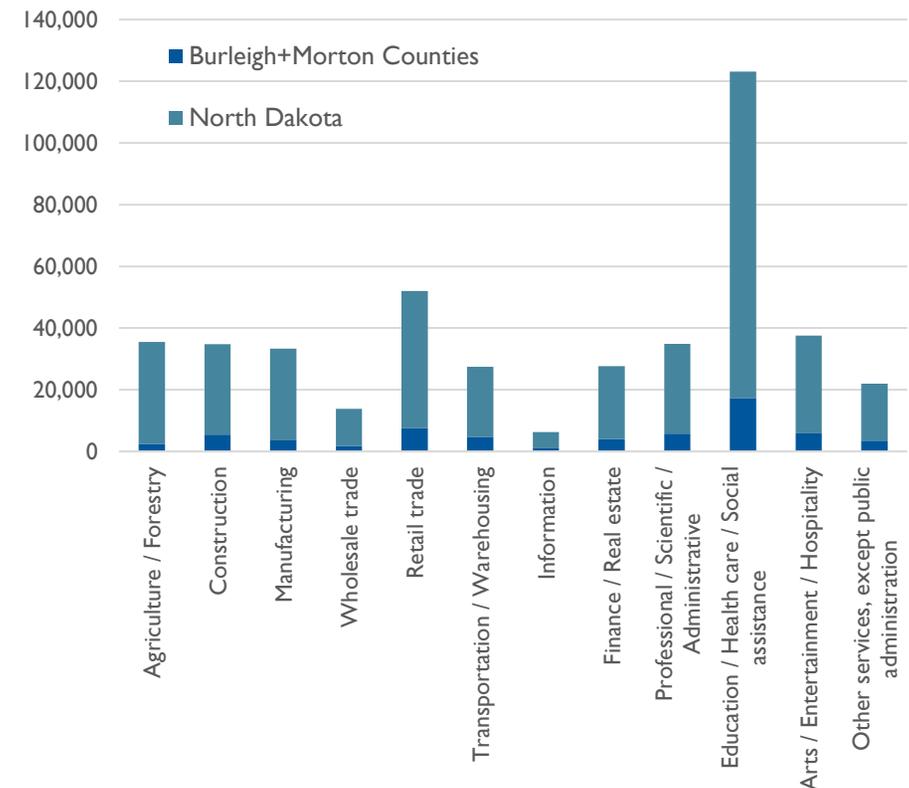
Compared to the state, both Burleigh and Morton Counties employ more residents in the public administration and retail trade sectors and have less employment in agriculture and manufacturing sectors.

The [Bismarck-Mandan Chamber EDC](#) also tracks major employers in the area. The following lists the five largest employers:

- State of North Dakota (4,456 employees)
- Sanford Health (4,204 employees)
- Bismarck Public Schools (2,580 employees)
- CHI St. Alexius Health (1,290 employees)
- Doosan Bobcat (1,280 employees)

This aligns with the top employment sectors reported to the U.S. Census, with three of the five top employers being in health care and education. **Figure 13** presents the employment centers in the MPO by size in 2022.

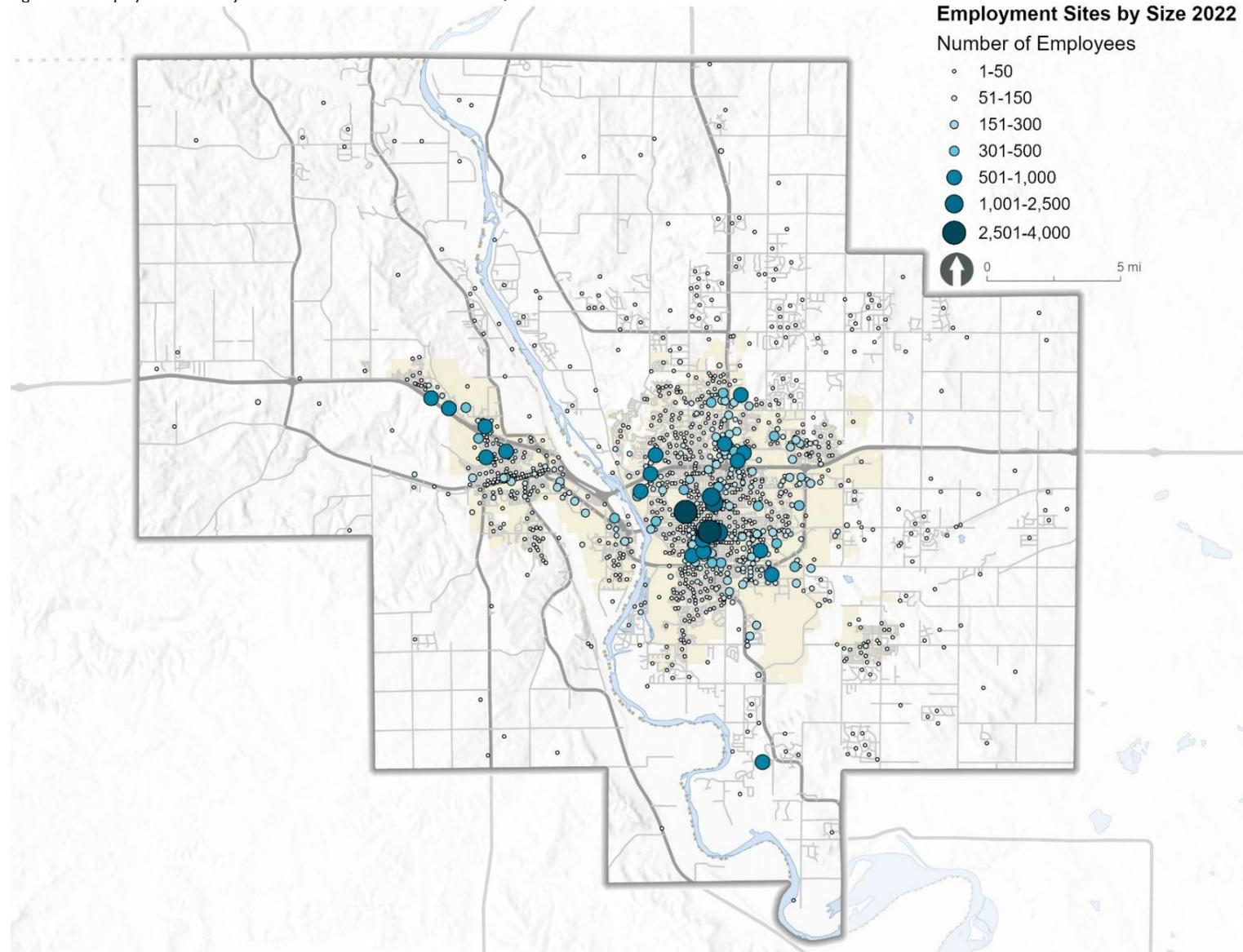
Figure 12: Jobs by Industry Sector for Burleigh and Morton Counties and North Dakota, 2023



Source: U.S. Census Bureau, ACS 5-Year Estimates 2023



Figure 13: Employment Sites by Size in the Bismarck-Mandan MPO, 2022



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics



Employment Projections

Figure 14 shows employment projections by industry for Region VII through 2033, which includes Burleigh and Morton Counties and the counties of McLean, Mercer, Sheridan, Oliver, Kidder, Grant, Sioux, and Emmons. The health care/social assistance industry is projected to have the most growth by 2033 for the region. Educational services will see the second-highest growth, with an estimated 801 jobs added by 2033. The agriculture sector will see the biggest loss in employment, with an estimated decrease of 298 jobs.

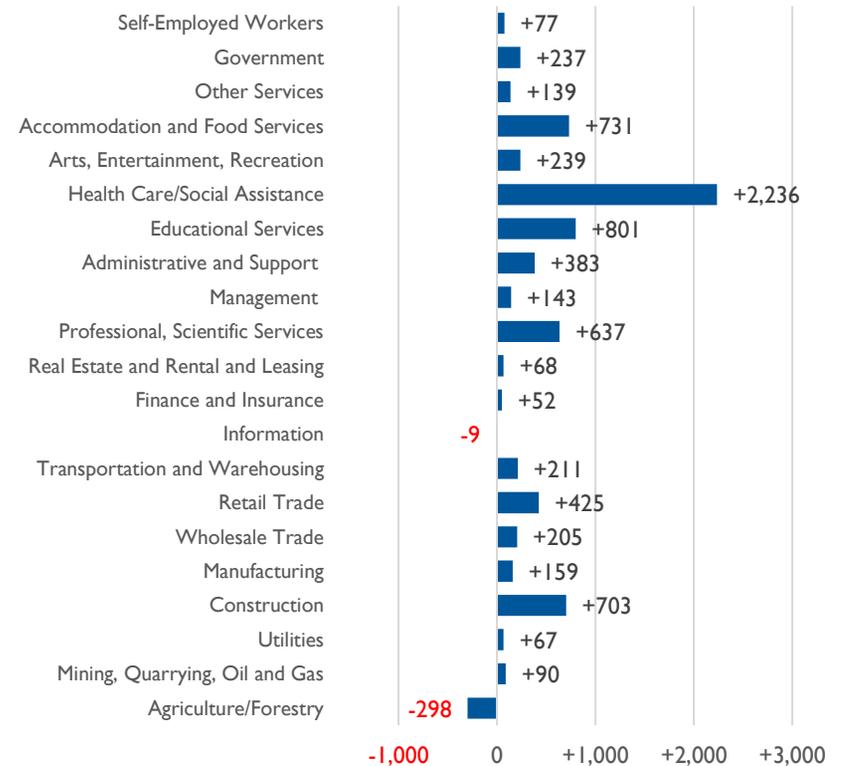
The Bismarck-Mandan MPO also projects growth by employment industry as part of the TDMSE report. Using projections through 2060, the TDMSE report estimates that 39,130 jobs will be added in the service industry for the MPO, between 2021 and 2060 (see **Table 4**). The service industry includes health care, education, entertainment, real estate, and finance employment sectors.

Table 4: MPO Employment Projections

Employment Sector	2021	2030	2060
Retail	10,402	11,507	14,422
Service	53,521	63,690	92,651
Other	12,336	12,854	13,382
Total	76,259	88,321	120,455

Source: Data based on Woods & Poole Employment Projections produced for the Bismarck-Mandan MPO 2050 TDMSE Report

Figure 14: Region VII Employment Projections, 2023–2033

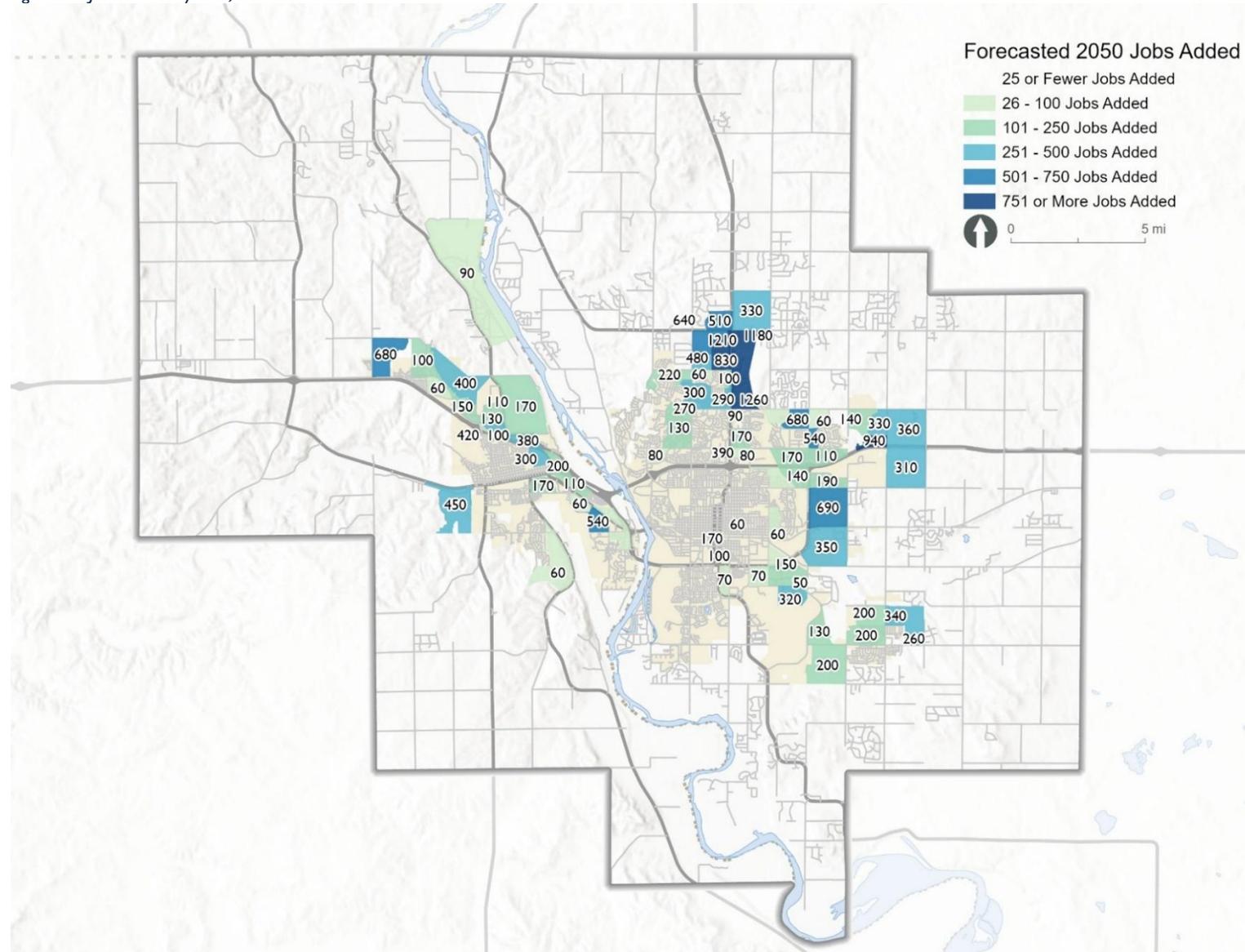


Source: Labor Market Information Center, Job Service North Dakota

Figure 15 shows projected job growth by 2050 per TAZ. The City of Bismarck is forecasted to experience the most job growth, with moderate growth seen in the City of Mandan.



Figure 15: Job Growth by TAZ, 2050



Source: Bismarck-Mandan MPO, 2050 TDMSE Report



Trends

Jobs in the MPO are projected to grow through 2050 and beyond. However, recent employment trends have been shaped significantly by the COVID-19 pandemic, which disrupted labor markets nationwide, including in the Bismarck-Mandan region. While initial impacts included job losses and economic uncertainty, recovery has been steady, with employment rebounding across most sectors.

One lasting effect of the pandemic has been the rise in remote work. Many employers adopted flexible work arrangements, and a portion of the workforce continues to work from home either full time or in hybrid formats. **Table 5** provides a breakdown of the shift in Burleigh and Morton County residents who worked from home before the pandemic in 2019 and in 2023.

Table 5: Percent of Employees Who Worked from Home, 2019–2023

County	2019	2023
Burleigh County	3.1%	8.1%
Morton County	5.7%	8.2%

Source: U.S. Census Bureau, ACS 5-Year Estimates 2019-2023

This shift has influenced travel behavior, contributing to changes in peak-hour traffic volumes and a reduction in overall vehicle miles traveled (VMT) during the early pandemic years. Although VMT has largely recovered, the long-term implications of increased flexible work arrangements may continue to moderate growth in commuting-related travel demand.



Section 3 – Travel

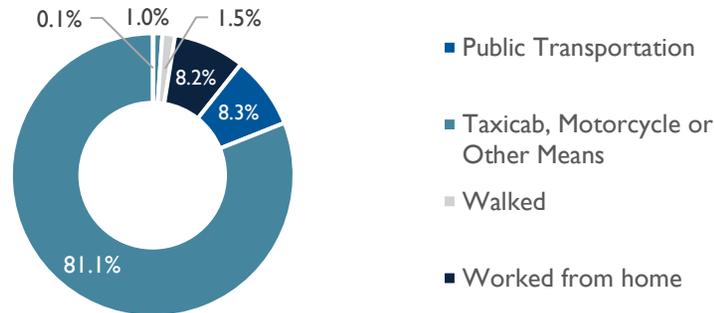
This chapter provides an overview of the current characteristics of the MPO region’s multimodal transportation system and recent trends impacting travel in the region. All data figures will combine Burleigh and Morton Counties to represent the MPO.

Existing Conditions

Figure 16 shows key characteristics of travel for Burleigh and Morton counties. This snapshot provides an overview of how residents travel to key destinations such as work and home, as well as preferred modes of travel.

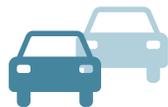
Figure 16: Travel Profile for Burleigh and Morton Counties

Means of Transportation to Work



Vehicles Available

86.1%



2 or more vehicles

12.8%



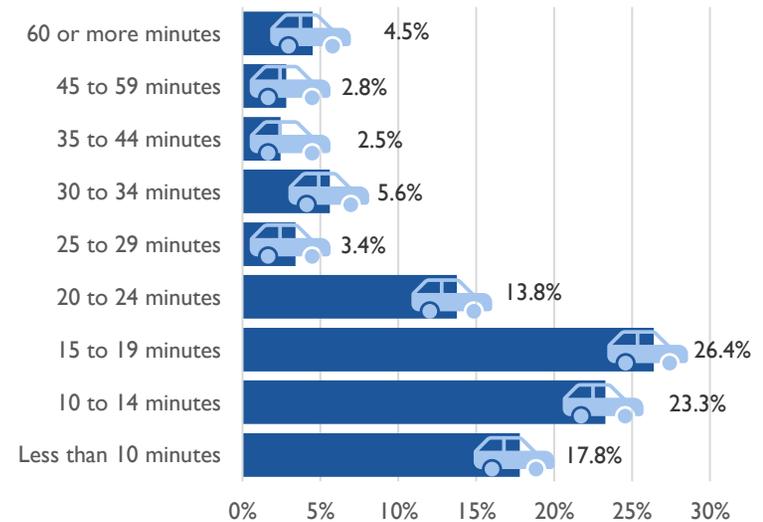
1 vehicle

1.2%

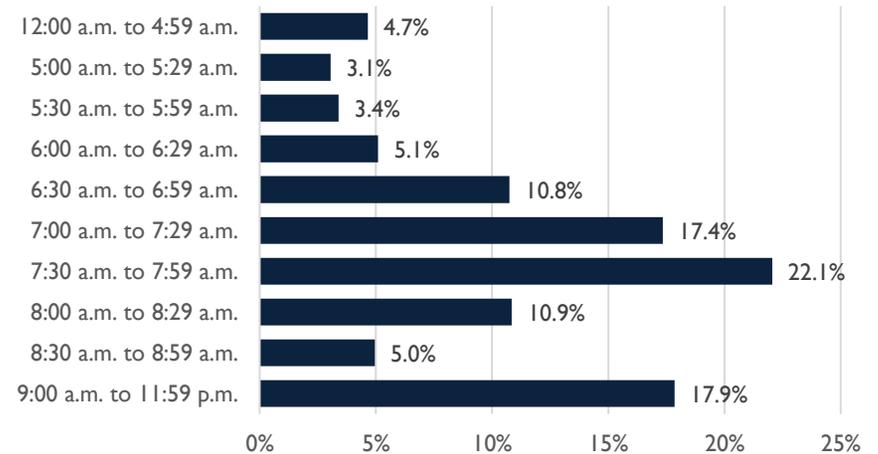


No vehicle

Travel Time to Work



Time of Departure for Work

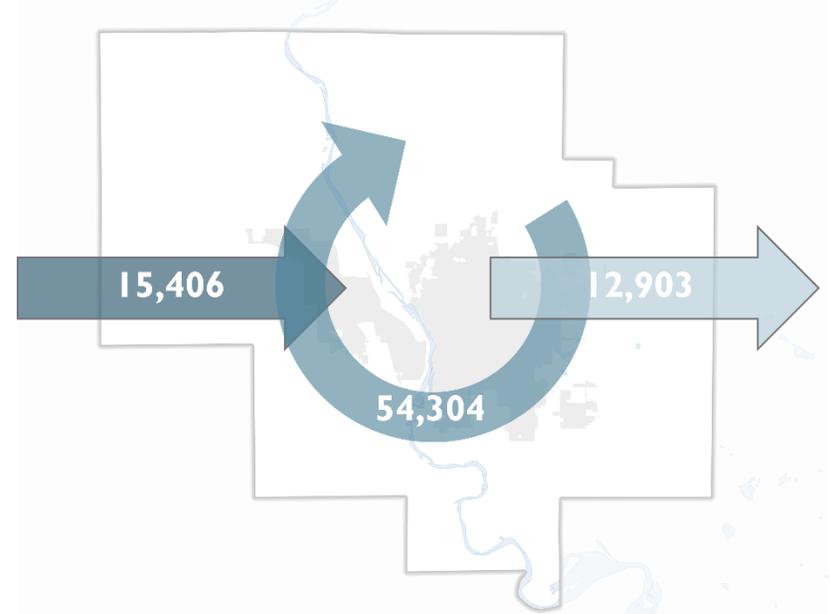




Commuting Patterns

Commuting patterns in the Bismarck-Mandan MPO reflect a strong concentration of residents who both live and work in Burleigh and Morton Counties. According to **Figure 17**, 54,304 individuals live and work in the region, representing the majority of the local workforce. In addition, 15,406 workers commute into the MPO from surrounding communities, highlighting the role of Bismarck and Mandan as employment centers in the region. More than 12,900 residents of Burleigh and Morton Counties travel outside the MPO for work. This outflow of commuters suggests economic and employment connections with nearby counties and cities and may influence regional transportation planning, especially for corridors linking the MPO to external destinations.

Figure 17: Commuting Patterns in Burleigh and Morton Counties, 2022



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics



Performance Measures and Current MPO Work

Federal requirements governing the roles and responsibilities of MPOs articulate the required application of a performance-based planning approach that links performance-based planning practices to future investments in the transportation system, including in the development of annual Transportation Improvement Programs (TIP) and Metropolitan Transportation Plans.

Pursuant to the requirement of a performance-based planning approach, state departments of transportation (DOT) and MPOs are directed to emphasize performance goals in their Metropolitan Transportation Plans and TIP documents:

- Safety and security
- Infrastructure condition (for bridges and pavement)
- Congestion reduction
- System reliability for freight movement and economic vitality
- Alternative transportation modes to automobile travel
- Environmental sustainability
- Reduced project delivery

The Bismarck-Mandan MPO has adopted local-level targets and objectives to meet the needs of the Bismarck-Mandan region and specify how the MPO should improve to follow a given performance goal. Federal rulemaking has ratified specific performance measures for three of the seven performance goals, including Safety and Security (PM1), Infrastructure Condition (PM2), and System Reliability (PM3).

Minimum federal requirements require state DOTs to establish specific, numerical targets for each measure (PM1, PM2, and PM3); MPOs have the option to support these targets or create their own. The Bismarck-Mandan MPO has elected to support the targets established by NDDOT and, under this arrangement, progress toward these targets is reported by NDDOT. To see the latest on performance progress and for more information about PM1, PM2, and PM3, see FHWA's [State Performance Dashboard](#) for the state of North Dakota.

Additional performance measures in the Bismarck-Mandan MPO relate to transit operations and facilities (including vehicles). These topics are described in the MPO's annual Transit Asset Management report, which is included as part of the annual TIP publication. See the [current TIP](#) for more information about transit performance topics.



As a regional transportation planning agency, a key responsibility of the Bismarck-Mandan MPO is to lead transportation plans and studies in the Bismarck-Mandan region. The Monitoring Report seeks to provide the public with a snapshot of the ongoing work led by the MPO; **Table 6** lists recent, ongoing, and future plans and studies for the region.

Table 6: Recent, Ongoing, and Future Plans and Studies for the Bismarck-Mandan MPO

Recent Bismarck-Mandan MPO Plans and Studies	Current MPO Plans and Studies
East Main Avenue Corridor Study (2022)	Safety Policy Study
Sunset Drive Corridor Study (2023)	Intelligent Transportation Systems Regional Architecture Update
Transit Development Plan (2023)	Annual Update to the Transportation Improvement Program (2026–2029)
Pavement Condition and Analysis (2024)	
Arrive 2050 Metropolitan Transportation Plan (2024)	
Safe Routes to Services/ Complete Streets Study (2024)	
Future Plans and Studies	
Fringe Area Road Master Plan Update	
Transit Development Plan	
Parking Needs Study	
Passenger Rail Station Siting Study	



Functional Classification

Functional classification is a system used by FHWA and state DOTs to organize streets and highways based on the character of service they provide and to balance the provision of mobility and accessibility needs for vehicular users. The functional classification system also determines the eligibility of a street, road, or highway for federal funding; facilities designated as part of the functionally classified network are considered part of the federal-aid system, which means they are eligible to receive federal funding for transportation-related improvements. **Figure 19** shows the functionally classified roads in the Bismarck-Mandan MPO region, while an interactive map showing these facilities is available on the [MPO's website](#).

Table 7 describes each of the functional classifications while **Figure 18** demonstrates the degrees of mobility and accessibility provided for each classification.

Figure 18: Functional Classification Mobility vs. Accessibility

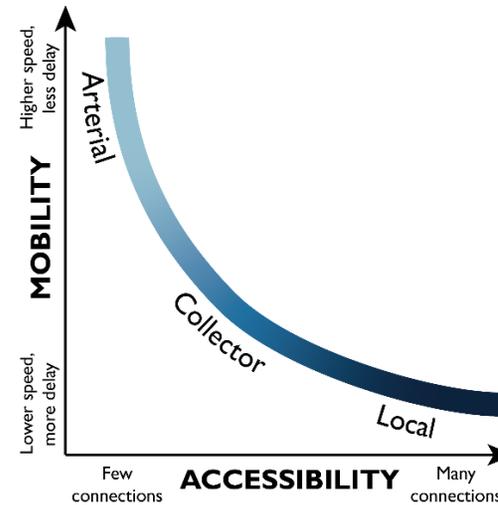
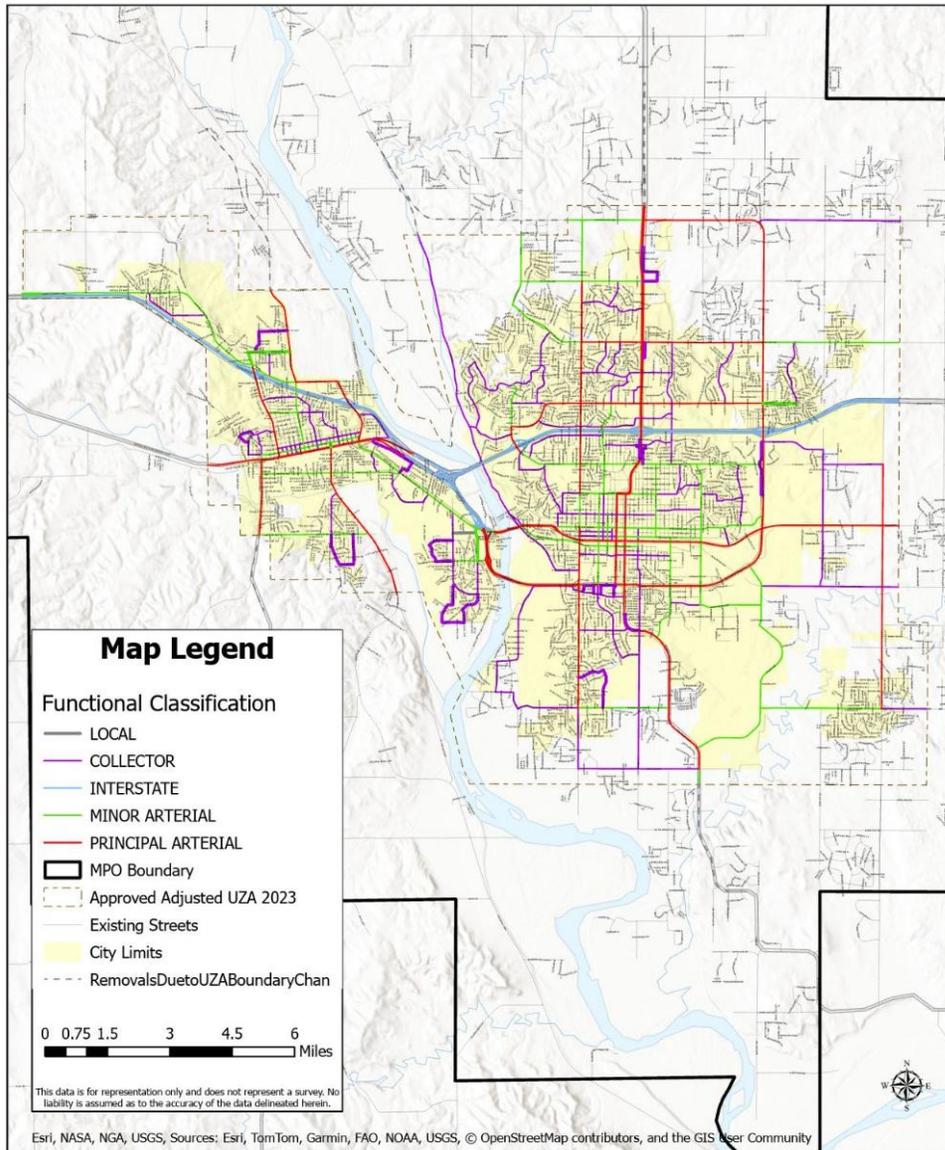


Table 7: Functional Classification Definitions

Functional Classification	Description
Interstate	Limited-access, divided highways designed for mobility and long-distance travel. These facilities connect the nation's major metropolitan areas.
Principal Arterial	Serve major centers of metropolitan areas by providing high degrees of mobility. These facilities often provide access to adjacent land uses directly.
Minor Arterial	Provide mobility for moderate-distance trips by connecting collector roads to the region's arterial network.
Collector	Provide connectivity between local and arterial roads while serving adjacent land uses directly.
Local	Provide highest degrees of access while providing the lowest degrees of mobility. Local roads are intended to provide direct access to adjacent land uses while discouraging long-distance travel.



Figure 19: Functionally Classified Roads in the Bismarck-Mandan MPO, 2024



Source: Bismarck-Mandan MPO



Motorized Travel

VMT measures the total distance traveled by vehicles in a specific area and is a key indicator of travel demand and roadway usage. In the Bismarck-Mandan MPO, NDDOT collects and estimates VMT data using a combination of permanent monitoring stations and periodic traffic counts. These figures are reported annually to FHWA through the Highway Performance Monitoring System.

Figure 20 shows distinct patterns in urban and rural travel across Burleigh and Morton Counties from 2013 to 2023:

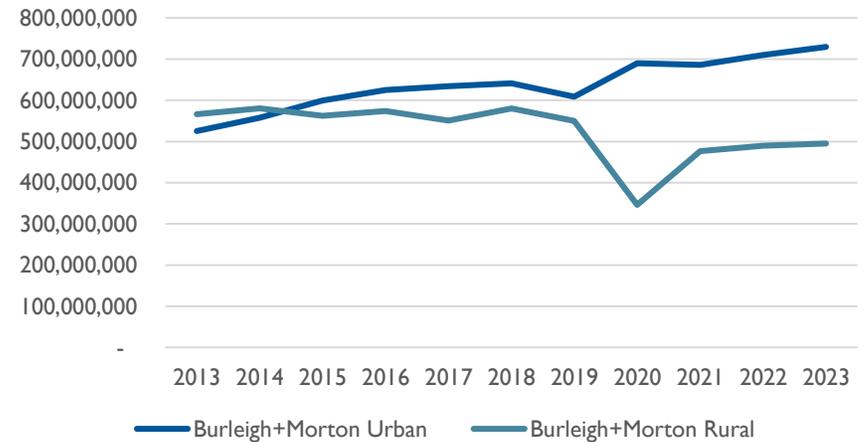
- **Urban VMT** has steadily increased over the past decade, rising from approximately 600 million miles in 2013 to about 750 million miles in 2023.
- **Rural VMT** has been more variable, with a noticeable dip around 2020 likely tied to the COVID-19 pandemic. By 2023, rural VMT had recovered to roughly 500 million miles.

When looking at the total VMT shown in **Figure 21**:

- Combined, Burleigh and Morton Counties have maintained relatively stable travel volumes, averaging close to 1 billion miles annually.
- Statewide VMT for North Dakota has also remained consistent, generally around 10 billion miles per year, with minor fluctuations.

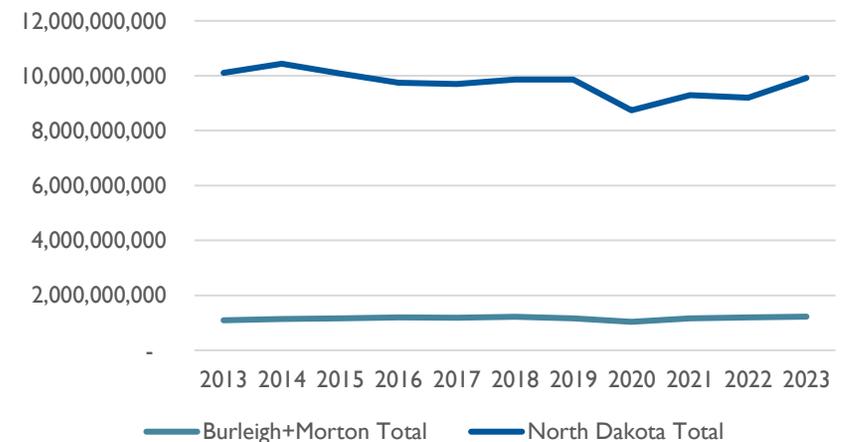
[NDDOT's interactive Traffic Data Viewer](#) provides traffic volumes and monitoring locations across the state.

Figure 20: Urban and Rural Comparison of VMT, 2013–2023



Source: NDDOT, Annual Traffic Reports 2013–2023

Figure 21: Comparison of MPO Counties' VMT to North Dakota, 2013–2023



Source: NDDOT, Annual Traffic Reports 2013–2023



Safety

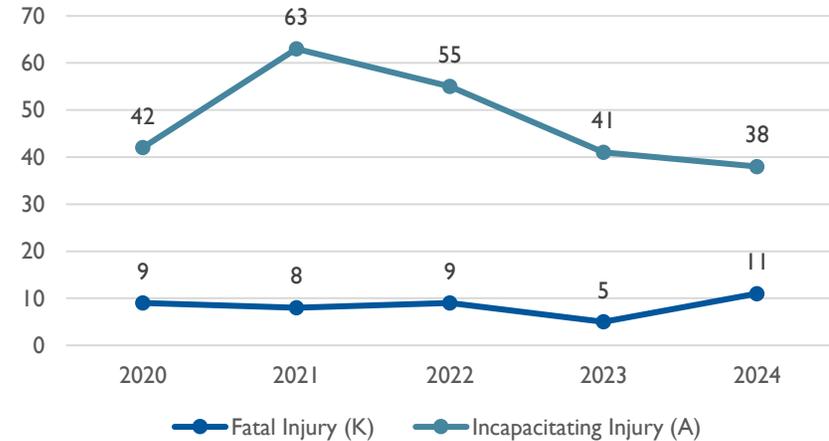
Planning for a safe multimodal transportation system is a key priority for the Bismarck-Mandan MPO and its member agencies. The MPO is currently leading the [2025 Safety Policy Study](#), which aims to identify and categorize the types of safety countermeasures used on the regional transportation system with the intent of developing a tool for future multimodal transportation improvements. The Safety Policy Study is scheduled for approval in December 2025.

As part of the Safety Policy Study, a crash data analysis and trend summary was completed. The key findings from this summary follow.

Figure 22 and **Figure 23** present historic trends related to the annual number of fatal and serious injury crashes that were recorded in the MPO between 2020 and 2024. These two trends align with the performance measures required by PMI.

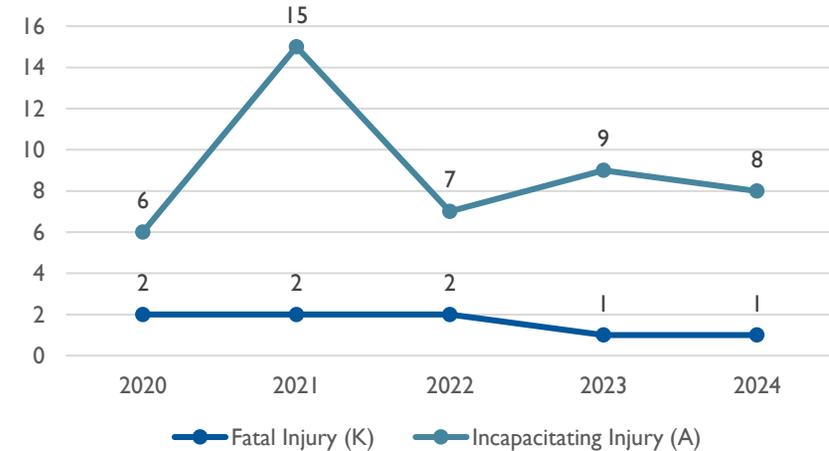
As the two figures indicate, annual fatal and serious injury crashes between 2020 and 2024 saw an increase from 2020 into 2021 before declining into 2024. Non-motorized fatal and serious injury crashes saw a slight increase in 2023 before declining in 2024.

Figure 22: Fatal and Serious Injury Crashes, 2020–2024



Source: NDDOT

Figure 23: Fatal and Serious Injuries Involving Bicyclists or Pedestrians, 2020–2024



Source: NDDOT



Infrastructure Conditions

Pavement Conditions

The Bismarck-Mandan MPO conducted a [pavement condition assessment](#) of the region’s functionally classified roadways in 2024. The condition assessment covered each of the MPO’s member jurisdictions: the Cities of Bismarck, Mandan, and Lincoln and Burleigh and Morton Counties. **Figure 24** shows the resulting pavement condition assessment, reported using a Pavement Condition Index (PCI), for the MPO’s functionally classified roads. **Table 8** describes the PCI categories.

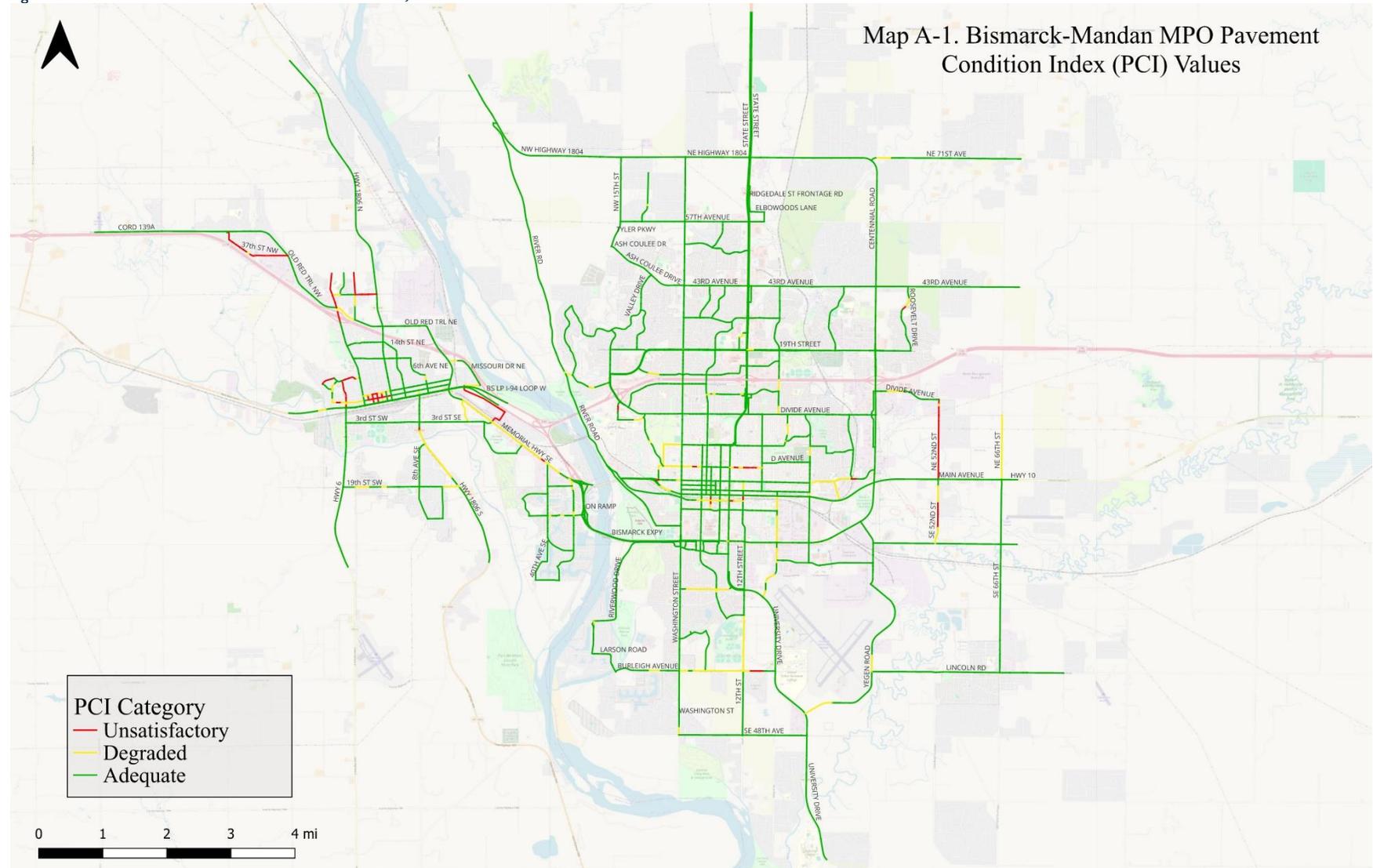
Table 8: Bismarck-Mandan MPO Pavement Condition Categories

Category	Typical Distresses and Typical Level of M&R Needed	PCI Range
Adequate	More extensive longitudinal and transverse cracking and weathering of surface. Preventative maintenance: Crack sealing and surface treatments	71–100
Degraded	Extensive longitudinal and transverse cracking, early-stage alligator (fatigue) cracking, early-stage rutting, and weathering of surface. Global preventative maintenance and localized repairs: Localized surface and/or full-depth patching, surface treatments, and thin overlays	56–70
Unsatisfactory	More extensive and more severe longitudinal and transverse cracking, alligator (fatigue) cracking, rutting, weathering of surface, and potholes. Major rehabilitation: Full-depth patching, mill and overlays, traditional overlays, and reconstruction	0–55

Source: Bismarck-Mandan MPO, 2024 Pavement Conditions and Analysis Report
Note: M&R = maintenance and repair



Figure 24: Bismarck-Mandan MPO Pavement Conditions, 2024



Source: Bismarck-Mandan MPO, 2024 Pavement Conditions and Analysis Report



Funding the Transportation Improvements in the Bismarck-Mandan MPO Region

The Bismarck-Mandan MPO is responsible for programming multimodal transportation improvements that use federal funds, including the construction of new roads and trails, reconstruction and rehabilitation of existing streets and roads, and preventative maintenance treatments like chip sealing and microsurfacing.

A major challenge to programming these improvements is the need to balance investments in expanding the multimodal transportation system with preserving existing transportation infrastructure in a state of good repair in light of limited federal, state, and local funding.

To contextualize the costs related to these project types, NDDOT's project cost history information is shown in **Table 9**.

Table 9: NDDOT 2024 Project Cost History

PROJECT COST HISTORY		
(Per Mile Costs) (today dollars - must inflate for future years)	Construction & CE Only	Total Cost [#]
	Statewide	Statewide
New Construction/New Alignment*	8,000,000	11,000,000
2-lane	5,000,000	6,900,000
4-lane	8,000,000	11,000,000
PCC Reconstruction	3,150,000	3,500,000
Major Rehabilitation/Structural Improvement	1,700,000	1,900,000
Full Depth Reclamation and Overlay w/Widening	1,700,000	1,900,000
Full Depth Reclamation and Overlay	975,000	1,100,000
Concrete Overlay/Widening	1,300,000	1,500,000
HBP Overlay w/Widening	1,150,000	1,300,000
Concrete Overlay	1,200,000	1,400,000
Mill & HBP Overlay >3"	575,000	660,000
Crack/Seal w/HBP Overlay	1,150,000	1,300,000
Minor Rehabilitation**	900,000	1,000,000
Sliver Grading w/HBP Overlay	900,000	1,000,000
Mill & HBP Overlay 2" > 3"	400,000	440,000
Preventive Maintenance	300,000	320,000
TLO ≤ 2" & Mill & HBP Overlay ≤ 2"	300,000	320,000
Microsurfacing	80,000	89,000
Chip Seal	50,000	58,000
CPR/Grinding	150,000	160,000
Urban		
Reconstruction***	10,000,000	12,000,000
Surfacing	1,500,000	1,800,000

All costs (except for 4-lane new construction/new alignment) are stated as 2-lane roadway costs. Multiply cost above by 2 to arrive at 4-lane both roadway costs.

For some work types no/few recent project data available. Costs a combination of actual project cost history and calculated costs based on recent average bid item costs.

Overall improvement category cost (Major Rehab, Minor Rehab, etc) is based on highest cost within category.

*Does not include major structures
**Cost may be higher for the roadways with wide shoulders.
***This is an average urban reconstruction cost.
Urban costs can vary widely dependent on the situation (section width, signals, storm sewer, etc)

[#]Total Cost includes Construction, CE, PE, ROW, Utilities, Wetlands, Cultural, Haul Roads

Source: NDDOT, Project Cost History

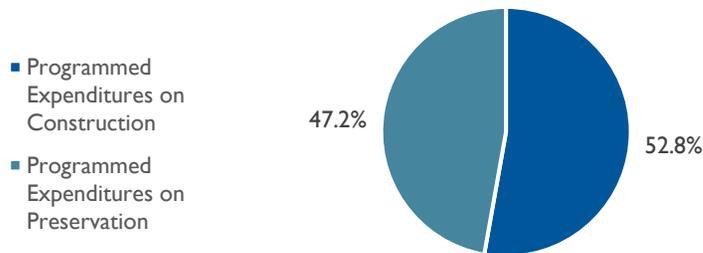


Snapshot of Transportation Funds Programmed in the Region

The Bismarck-Mandan MPO’s annual TIP serves as a guide for how the MPO and its member agencies are investing in the region’s multimodal transportation system. The [current TIP](#) is for 2026 through 2029 and offers a look at how expenditures on construction and preservation projects on the MPO region’s functionally-classified network are balanced. It is noted that the MPO’s member agencies expend additional funds to operate and maintain their local street and road networks.

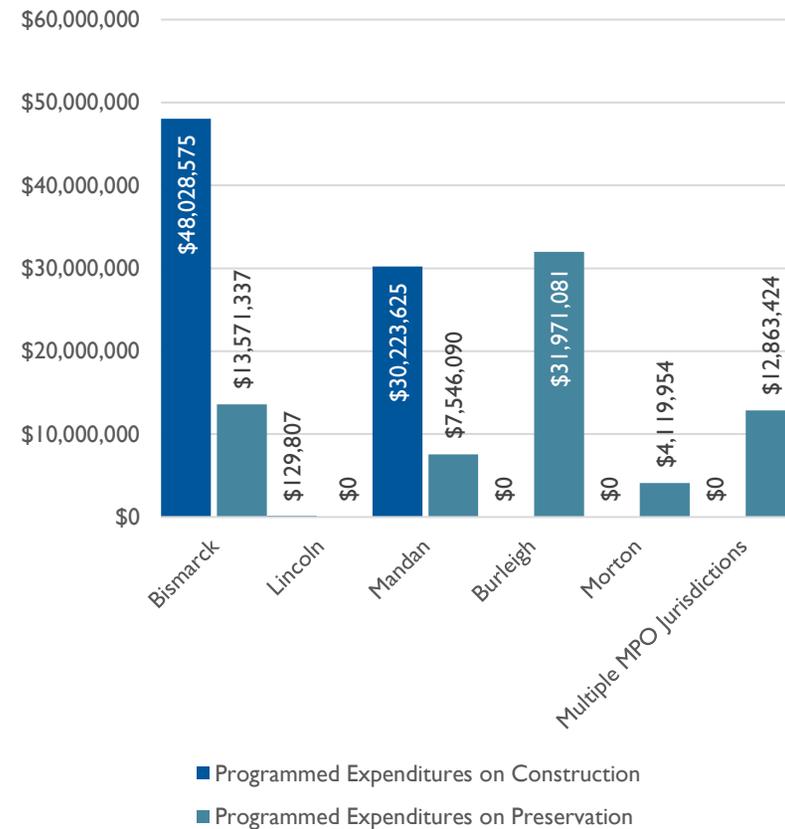
- **Construction** refers to expansion and rehabilitation projects such as adding turn lanes, adding new streets, upgrading intersection, resurfacing or reconstructing new streets or trails, or replacing bridges.
- **Preservation** refers to activities conducted to maintain the current transportation system in a state of good repair, such as mill and overlays.

Figure 25: Breakdown of Expenditures Programmed on Construction vs. Preservation Projects in the MPO Region, 2026–2029



Source: Bismarck-Mandan MPO, FY2026–2029 Transportation Improvement Program

Figure 26: Programmed Expenditures on Construction and Preservation by MPO Member Jurisdiction, 2026–2029



Source: Bismarck-Mandan MPO, FY2026–2029 Transportation Improvement Program



Freight

Freight transportation is an essential part of the Bismarck-Mandan MPO’s economy, supporting the movement of goods across local, regional, and national markets. Trucks, rail, and air cargo are the primary modes used to move freight into, out of, and through the region. Many businesses in the area depend on reliable freight access, including those in manufacturing, construction, wholesale trade, and agriculture.

The region includes several important freight facilities. The Northern Plains Commerce Center in the City of Bismarck is a key transload site where goods are transferred between rail and truck. The Bismarck Municipal Airport also plays a role in freight movement, offering air cargo services that connect the region to broader markets.

Freight reliability is closely monitored through the FHWA PM3 performance measure, which tracks how consistently travel times are maintained on key freight corridors, especially those on the National Highway System. Reliable travel times are critical for freight operators because delays can increase costs and disrupt supply chains. By monitoring PM3 performance, the MPO can identify areas where improvements may be needed to support efficient freight movement and reduce congestion on routes that serve both commercial and general traffic.

Table 10 includes some of the key freight corridors in the Bismarck-Mandan region.

Table 10: Key Freight Routes in the Bismarck-Mandan MPO

Freight Route
State Street
Century Avenue
North 9th Street
North 7th Street
University Drive
Bismarck Expressway
Main Avenue

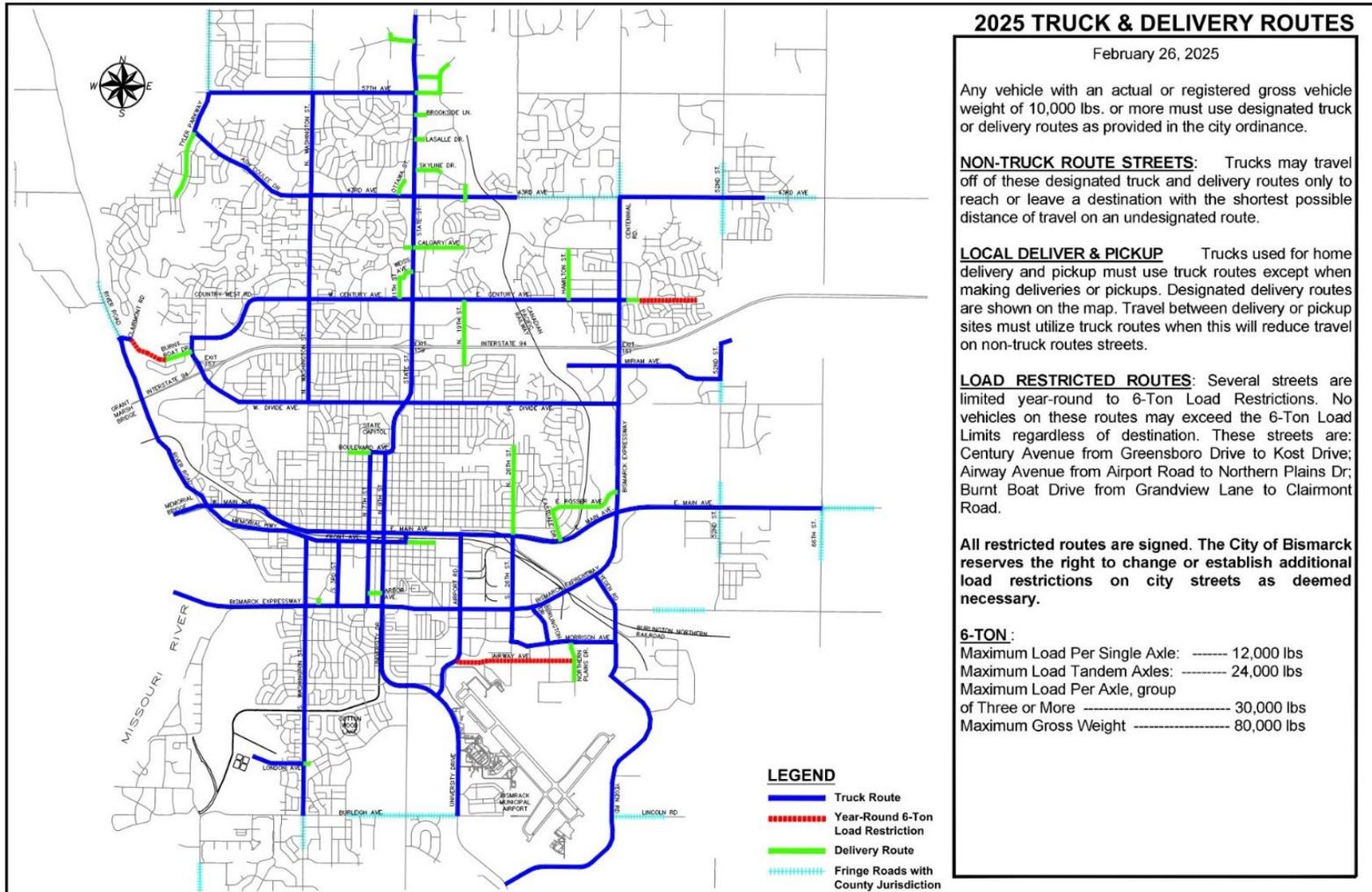
Source: City of Bismarck

Truck annual average daily traffic for state roads through the Bismarck-Mandan MPO can be viewed on the [NDDOT’s GIS viewer](#) on the State Roads – Truck Annual Average Daily Traffic layer.

Figure 27 shows a map of key freight routes in the City of Bismarck and which streets are posted as year-round 6-ton load restrictions, meaning no vehicle exceeding a 6-ton limit may use the route. The [Arrive 2050 Metropolitan Transportation Plan](#) contains further information about freight in the MPO region, such as truck generation, daily truck trips, reliability, and assets.



Figure 27: City of Bismarck Truck and Delivery Routes



2025 TRUCK & DELIVERY ROUTES

February 26, 2025

Any vehicle with an actual or registered gross vehicle weight of 10,000 lbs. or more must use designated truck or delivery routes as provided in the city ordinance.

NON-TRUCK ROUTE STREETS: Trucks may travel off of these designated truck and delivery routes only to reach or leave a destination with the shortest possible distance of travel on an undesigned route.

LOCAL DELIVER & PICKUP Trucks used for home delivery and pickup must use truck routes except when making deliveries or pickups. Designated delivery routes are shown on the map. Travel between delivery or pickup sites must utilize truck routes when this will reduce travel on non-truck routes streets.

LOAD RESTRICTED ROUTES: Several streets are limited year-round to 6-Ton Load Restrictions. No vehicles on these routes may exceed the 6-Ton Load Limits regardless of destination. These streets are: Century Avenue from Greensboro Drive to Kost Drive; Airway Avenue from Airport Road to Northern Plains Dr; Burnt Boat Drive from Grandview Lane to Clairmont Road.

All restricted routes are signed. The City of Bismarck reserves the right to change or establish additional load restrictions on city streets as deemed necessary.

6-TON :
 Maximum Load Per Single Axle: ----- 12,000 lbs
 Maximum Load Tandem Axles: ----- 24,000 lbs
 Maximum Load Per Axle, group
 of Three or More ----- 30,000 lbs
 Maximum Gross Weight ----- 80,000 lbs

Source: City of Bismarck



Public Transportation

Public transportation in the Bismarck-Mandan MPO is provided by Bis-Man Transit. The system includes two services: a door-to-door paratransit service (Paratransit) and a fixed-route bus service known as Capital Area Transit (CAT). Paratransit is available to individuals who are either 70 years of age or older or who qualify based on a disability. This service operates every day, and rides may be scheduled at least one day prior.

The CAT bus system is open to all riders and follows a network of routes throughout the area. Service hours generally run from 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 7:00 p.m. on Saturday. The route map can be found on the [Bis-Man Transit website](#). CAT uses a flag-stop system, allowing passengers to board or exit the bus at most points along the route. The current route design consists of one-way loops that connect at a central hub located on Front Avenue in Bismarck. This bus system provides broad coverage across the MPO.

The City of Bismarck is the designated recipient of federal transit funding and owns the vehicles, facilities, and equipment used for public transportation. Operations and management are handled through a contracted provider.

Since the launch of CAT in 2004, ridership trends have shifted. While CAT continues to serve more annual trips overall, the number of trips on Paratransit has grown over time. When comparing service efficiency, CAT consistently provides more trips per vehicle revenue mile than Paratransit, indicating higher productivity for the fixed-route system.



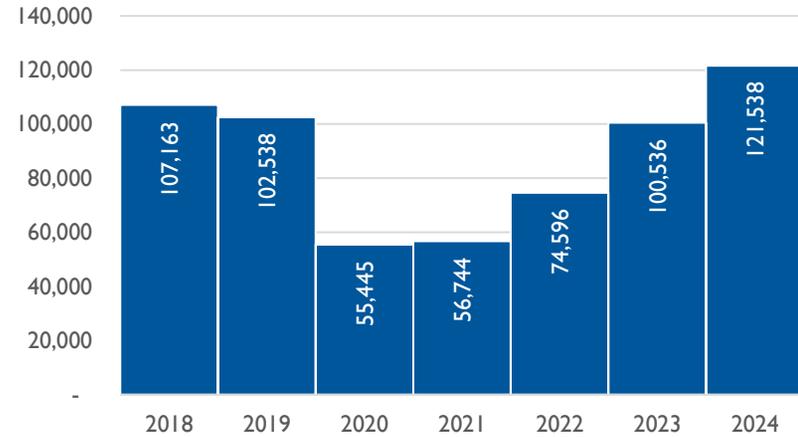
Source: Capital Area Transit



Figure 28 and **Figure 29** show annual ridership trends for CAT and Paratransit services. CAT ridership declined sharply in 2020 due to the COVID-19 pandemic but has steadily increased since then, reaching its highest level in 2024 with more than 121,000 annual trips.

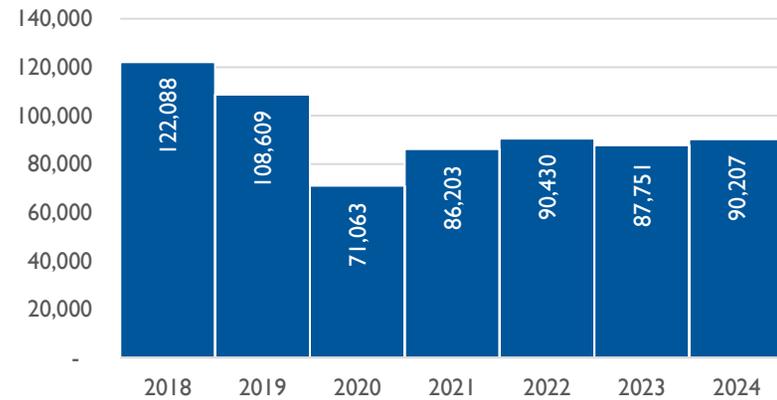
The Paratransit service saw its highest usage in 2018 with more than 122,000 trips. This was followed by a decline in 2019 and a sharp drop in 2020, likely due to the impacts of the COVID-19 pandemic. Ridership began to recover in 2021 and remains relatively stable, with more than 90,000 trips recorded in 2024. These trends reflect both the usefulness of the service to residents and broader shifts in travel behavior over the past several years.

Figure 28: Annual CAT Ridership, 2018–2024



Source: Cities Area Transit

Figure 29: Annual Paratransit Ridership, 2018–2024



Source: Cities Area Transit



Bis-Man uses an on-time performance metric to evaluate the performance of its fixed-route and paratransit services. The methods for calculating this metric are as follows:

- **Fixed route (CAT):** Using a series of timing points for each route, a bus operator must pass each timing point within a specific window to be considered “on time.” CAT determines this window as being 1 minute before the published time point to 5 minutes after.
- **Paratransit:** A 30-minute window assumed as the trip window is provided for each user scheduling a ride via paratransit. Paratransit performance is considered “on time” if the driver completes the schedule trip at the 30-minute mark while arrivals before or after are considered as being not “on time.”

Table II provides the resulting calculations of annual on-time performance for the CAT and Paratransit services.

Table II: On-Time Performance for CAT and Paratransit Services, 2018–2024

Year	CAT	Dial-A-Ride
2018	80.12%	87.04%
2019	80.34%	96.00%
2020	84.16%	97.20%
2021*	–	95.00%
2022	84.00%	90.58%
2023	84.00%	92.81%
2024	85.69%	92.90%

*On-time performance was not available.
Source: Capital Area Transit



Bicycle and Pedestrian Transportation

The Bismarck-Mandan MPO supports a growing network of bicycle and pedestrian facilities that provide safe and accessible options for non-motorized travel. Sidewalks, shared-use paths, and designated bike lanes are located throughout the region, connecting neighborhoods, parks, schools, and commercial areas. These facilities support both recreational use and active transportation, contributing to the overall mobility and health of the community.

In recent years, several projects have expanded and improved the bike and pedestrian network, including new trail segments, upgraded crossings, and improved signage. The regional system continues to strengthen through coordinated planning efforts among local jurisdictions and agencies. The [Bismarck-Mandan MPO Multi-Use Trails Map](#) provides a detailed map of existing multiuse trails and bicycle routes.

As part of its commitment to active transportation, the region has participated in the Bicycle Friendly Community program administered by the League of American Bicyclists. The Bismarck-Mandan area was recertified as a Bronze Bicycle Friendly Community in 2025. Key data from the application process highlights the area's investment in infrastructure, education, and encouragement programs. These efforts support a more bikeable and walkable community and help guide future improvements to the non-motorized transportation system.



Source: HDR, Inc.



Source: KFYP



Recent/Emerging Trends

The Bismarck-Mandan MPO continues to evolve in response to new technologies, changing travel behaviors, and broader societal shifts. Several key trends are shaping the future of transportation in the region.

Electric Vehicles

The adoption of electric vehicles (EV) in the state of North Dakota remains relatively low compared to national trends but the rates of EV ownership are growing. Between 2020 and 2023, EV registrations in North Dakota grew at an average annual rate of 72 percent, outpacing the national average of 52 percent over the same period. Although North Dakota remains one of the states with the lowest number of EV registrations, a continuation of the recent growth in EV ownership would see a rapid rise in the number of EVs operating in the state in the near future.

Local governments and agencies are beginning to consider how EVs may affect long-term transportation planning, including parking, charging access, and energy demand. While EV ownership is still limited, the groundwork has been laid to support broader adoption in the coming years.

Shared Mobility

Although traditional shared mobility services like ride-hailing and car-sharing are less prevalent in the Bismarck-Mandan region than in larger urban areas, there is growing interest in expanding mobility options. Regional planning efforts have considered the role of microtransit, bike-share systems, and other flexible transportation models that could improve access for residents without personal vehicles.

Micromobility options such as e-bikes and e-scooters are gaining popularity nationwide and could offer practical first- and last-mile solutions in the MPO. These modes are especially useful in connecting residents to transit stops, commercial centers, and recreational areas. The region's existing bicycle and pedestrian infrastructure, including multiuse paths and protected bike lanes, provides a pathway to implement these programs.

Recent upgrades to the CAT fleet support this shift. All CAT buses are now equipped with fat tire bike racks, allowing riders to combine cycling with public transit at no extra cost. This integration reflects a growing interest in flexible, multimodal travel.

Mobility as a Service

Mobility as a Service (MaaS) is an emerging concept that integrates several transportation options, such as public transit, ride-hailing, bike-share, and car-share, into a single digital platform. Through a smartphone app or web interface, users can plan, book, and pay for trips across multiple modes, making travel more seamless and flexible.

While MaaS systems are more common in large urban areas, they are increasingly being explored in small urban and rural communities. For regions like Bismarck-Mandan, MaaS offers the potential to improve access to transportation by coordinating services across providers and offering real-time information, fare integration, and trip planning tools. This could be especially beneficial for residents who rely on multiple modes to complete a single trip or who lack access to a personal vehicle.



According to the [National Center for Applied Transit Technology](#), successful MaaS implementation in smaller communities depends on strong partnerships between public agencies and private mobility providers and investment in digital infrastructure and user-friendly platforms. MaaS can also support broader goals such as reducing congestion and enhancing the efficiency of existing transportation services.

Impact of COVID-19

The COVID-19 pandemic had a significant effect on travel behavior in the MPO. Transit ridership declined sharply in 2020, and while it has since rebounded, patterns remain different than pre-pandemic norms. Remote work increased during the pandemic and continues to influence commuting trends, with some residents now working from home part time or full time. In addition, supply chain disruptions and changes in consumer behavior affected freight movement and delivery patterns. Local agencies observed increased demand for home deliveries and commercial vehicle activity, especially in residential areas. Understanding the long-term impacts of COVID-19 helps guide future transportation decisions and ensures the system remains responsive to evolving community needs.

Passenger Rail Service

There is currently a planning study in place to renew passenger rail service along Amtrak's North Coast Hiawatha line. This route traveled from Seattle to Chicago through North Dakota. The rail service, known as the [Big Sky North Coast Corridor](#) (**Figure 30**), is part of a nationwide effort to expand passenger rail and restore mobility between major metropolitan areas and smaller communities.

The Bismarck-Mandan MPO is a government partner with the Big Sky Passenger Rail Authority and is actively involved in shaping future rail services. In 2026, the MPO is expected to undertake a passenger rail station siting study to facilitate local access to the new rail service in the future. The new rail service will allow for increased access of regional visitors to communities within the Bismarck-Mandan MPO area and help spur local economic activity.

Figure 30: Big Sky North Coast Corridor



Source: Big Sky Passenger Rail Authority