

Monitoring Report

Chapter 3

Employment

Updated July 2016



Table of Contents

Existing Characteristics.....	1
Figure 3.1 Jobs by NAICS Industry Sector for Burleigh and Morton County in Comparison to North Dakota, 2015.....	1
Figure 3.2 Average Annual Wage for Bismarck-Mandan MPO Counties in Comparison to Other North Dakota Populated Counties and Statewide, 2015.....	2
Figure 3.3 Unemployment Rate for Bismarck, ND MSA in Comparison to other North Dakota MSAs and North Dakota, May 2016.....	2
Figure 3.4 Top 25 Employment Sites in Bismarck-Mandan Area, April 2014.....	2
Employment Projections.....	3
Figure 3.5 North Dakota Annual Projected Employment Change by Industry, 2012-2022.....	3
Figure 3.6 MPO Employment Projections.....	3
Figure 3.7 Woods & Poole Total Employment Estimates and Projections for Burleigh and Morton Counties, 2010, 2025, 2040.....	3
Locations.....	3
Map 3.1 Employment Sites by Size in the Bismarck-Mandan Area (2014).....	4
Map 3.2 Bismarck-Mandan MPO Area Building Permits Issued by Employment Type: Retail (2010-2015).....	5
Map 3.3 Bismarck-Mandan MPO Area Building Permits Issued by Employment Type: Service (2010-2015).....	6
Map 3.4 Bismarck-Mandan MPO Area Building Permits Issued by Employment Type: Other (2010-2015).....	7
Map 3.5 Bismarck-Mandan MPO Projected Retail Employment Change by TAZ, 2010-2040 (High Growth Scenario).....	8
Map 3.6 Bismarck-Mandan MPO Projected Service Employment Change by TAZ, 2010-2040 (High Growth Scenario).....	9
Map 3.7 Bismarck-Mandan MPO Projected Other Employment Change by TAZ, 2010-2040 (High Growth Scenario).....	10

3 EMPLOYMENT

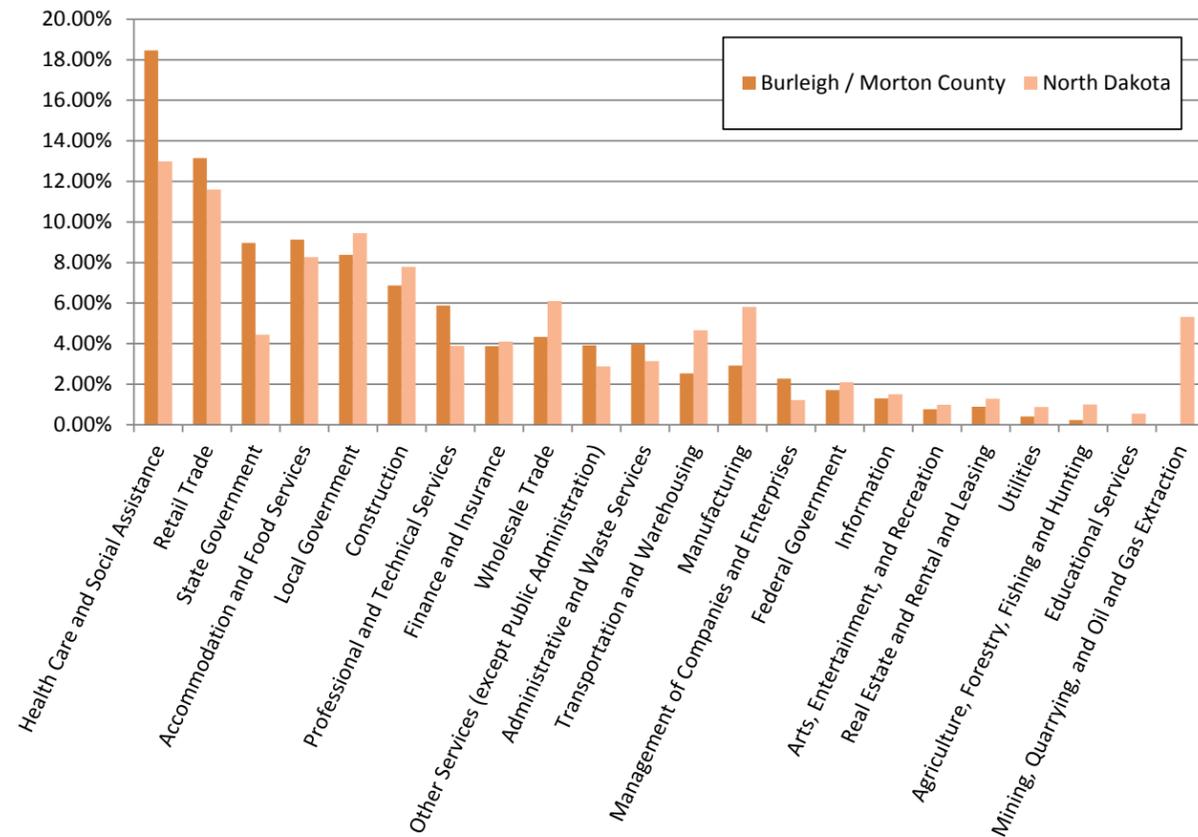
The location and characteristics of employment influences travel patterns within a region. Employment sites, for instance, are destinations that attract trips not only from employees working at the site but from customers or visitors to the employment site. The type of employment may also influence the number of trips. For example, a retail or service oriented business may attract a greater number of trips per employee when compared to an industrial oriented business. This chapter examines some current characteristics and locations of employment within the region.

EXISTING CHARACTERISTICS

Labor market information by the North American Industrial Classification System (NAICS) was collected from Job Service North Dakota Bismarck-Mandan MPO region. The following **Figure 3.1** compares the percent of employees by the NAICS category for Burleigh and Morton counties to the State of North Dakota. The five leading industries, by employment, in the Bismarck, ND MSA include Health Care and Social Assistance, Retail Trade, State Government, Accommodation and Food Services, and Local Government.

Compared to North Dakota, the two counties show a significantly higher percentage of individuals employed in the Health Care and State Government industries. North Dakota has a noticeably higher percentage of individuals involved in the Wholesale Trade, Transportation and Warehousing, and Manufacturing industries. It should be noted that some employment information related to the Educational

Figure 3.1: Jobs by NAICS Industry Sector for Burleigh and Morton County in Comparison to North Dakota, 2015



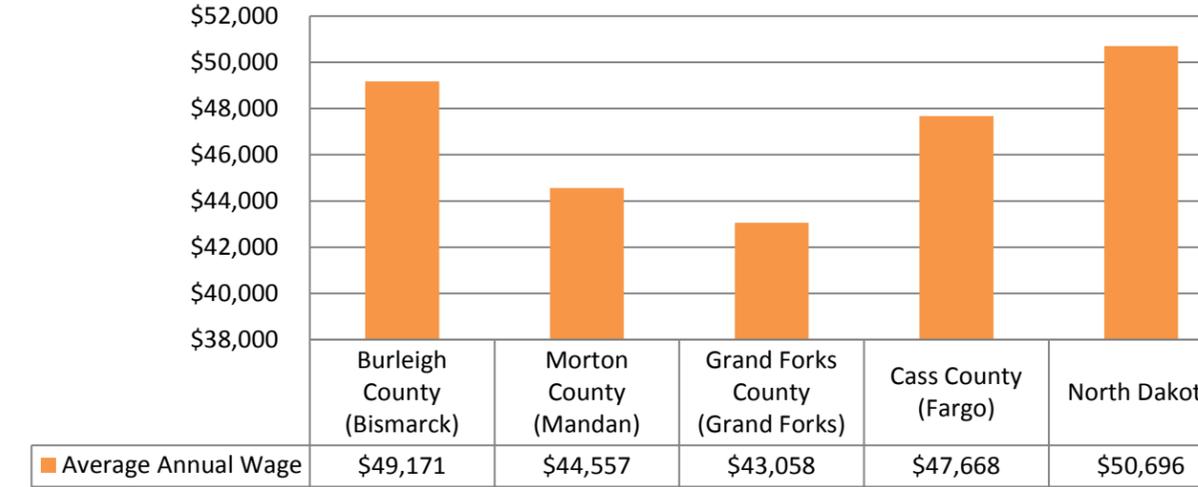
Based on Information from the Labor Market Information Center, Job Service North Dakota.

Services and Mining, Quarrying, and Oil and Gas Extraction industries was considered “Confidential” for Burleigh or Morton County so it is unknown at this time how many individuals are employed in those sectors.

Figure 3.2 represents the average annual wage for the Bismarck - Mandan MPO counties in comparison to other North Dakota MPO populated counties and statewide.

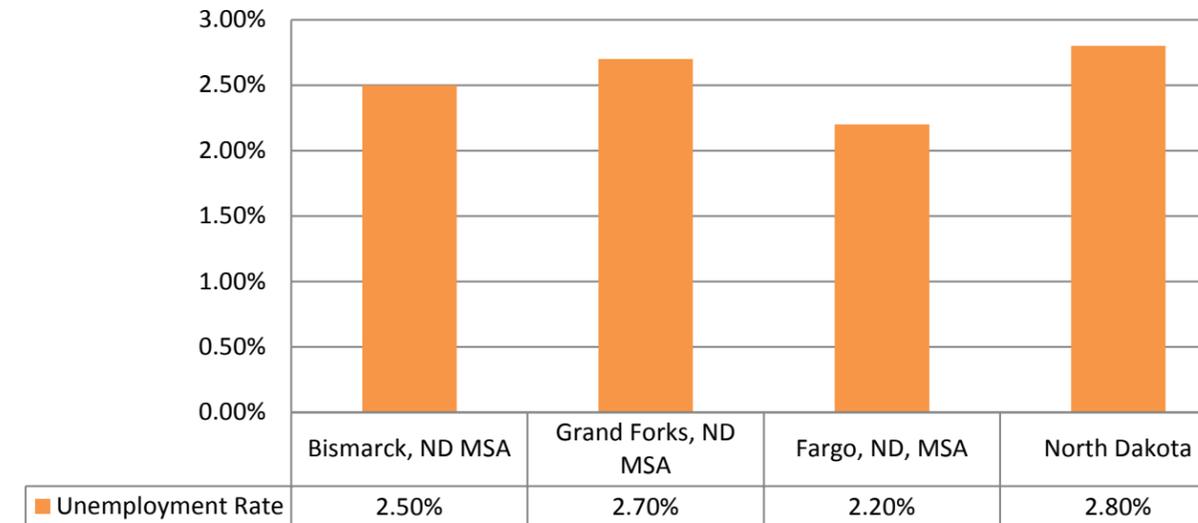
Figure 3.3 identifies unemployment rates for the Bismarck-Mandan MPO area jurisdictions in comparison to other Metropolitan Statistical Areas, and the State of North Dakota. In general unemployment rates within the Bismarck-Mandan MPO area are lower compared to other North Dakota Metropolitan Statistical Areas and the State of North Dakota. By comparison, the United States Department of Labor Bureau reported a nationwide unemployment rate of 4.5% in May 2016.

Figure 3.2: Average Annual Wage for Bismarck-Mandan MPO Counties in Comparison to Other North Dakota Populated Counties and Statewide, 2015



Based on Information from the Labor Market Information Center, Job Service North Dakota.

Figure 3.3: Unemployment Rate for Bismarck, ND MSA in Comparison to other North Dakota MSAs and North Dakota, May 2016



Based on Information from the Labor Market Information Center, Job Service North Dakota.

*Bismarck ND MSA denotes all of Burleigh County, Morton County, Oliver County, Sioux County combined

Figure 3.4 is a list of the top 25 employers in the Bismarck-Mandan MPO area by employee size.

Figure 3.4: Top 25 Employment Sites in Bismarck-Mandan Area, April 2014

Employer	Size
State of North Dakota	4,600
Sanford Health	3,110
St. Alexius Medical Center	2,305
Bismarck Public School District	1,970
Aetna	880
City of Bismarck	862
MDU Resources Group	780
Bismarck State College	779
Mandan Public School District	600
Housing Industry Training (HIT)	586
Missouri Slope Lutheran Care Center	576
Mid-Dakota Clinic	537
University of Mary	505
Dan's Supermarkets	575
Basin Electric Power Cooperative	455
National Information Systems Cooperative	455
Burlington Northern Railroad	437
Pride, Inc.	391
Walmart North	340
Walmart South	320
Bismarck-Mandan Parochial Schools	320
Missouri Valley YMCA	300
United Tribes Technical College	281
Burleigh County	270
Kadmas, Lee & Jackson	282

Based on data obtained from the Bismarck-Mandan Development Association web-site: www.bmda.org/workforce/employers.asp

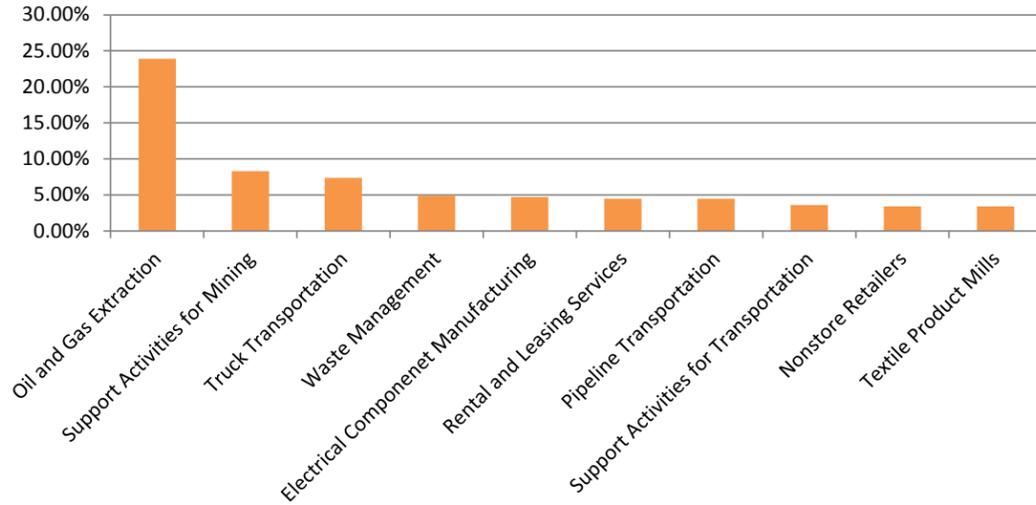
EMPLOYMENT PROJECTIONS

Figure 3.5 represents the 10 highest projected growth industries statewide, from 2010 to 2020. As the figure indicates the Oil and Gas Extraction and associated industries are projected to grow significantly statewide from 2012 to 2022.

In 2012, the Bismarck-Mandan MPO updated the socio-economic projections for the areas transportation model. Employment projections were established for the Bismarck-Mandan MPO area to the years 2025 and 2040. Generally, three different employment sectors were considered and include retail oriented jobs, service oriented jobs, and all other jobs. The **Figure 3.6** represents total jobs projected for the Bismarck-Mandan MPO area. These projections indicate a simple annual rate of change of approximately 3.12% from 2010 to 2040

Woods & Poole Economics is a firm which projects population and employment trends for regions throughout the United States. Woods & Poole data was acquired in 2012 for the development of Bismarck-Mandan MPO housing and employment projections and were established to the years 2025 and 2040. **Figure 4.7** depicts total Woods & Poole 2010 employment estimates and projections for 2025, and 2040. The Woods and Poole employment projections from 2012 indicate a more conservative simple annual rate of change of approximately 1.89% compared to the Bismarck-Mandan MPO projections (3.12%). It should be noted that the Woods and Poole projections consider the entire two-county area of Burleigh and Morton whereas the MPO projections are confined to just the MPO geographic area. Growth trends within the region are monitored to ensure the validity of the Bismarck-Mandan MPO employment projections. The Bismarck-Mandan MPO, as well as, the Woods & Poole projections assume jobs will grow at a faster rate than households within the region.

Figure 3.5: North Dakota Annual Projected Employment Change by Industry, 2012-2022



Based on Information from the Labor Market Information Center, Job Service North Dakota.

Figure 3.6: MPO Employment Projections

Employment Sector	2010	2025	2040
Retail	11,473	17,495	21,733
Service	26,730	46,607	60,415
Other	25,921	35,435	42,080
Total	64,124	99,537	124,228

Data based on projections developed for the Bismarck-Mandan MPO in 2012. Employment figures extracted from the Transportation Analysis Zone Structure within the Bismarck-Mandan MPO transportation model.

Figure 3.7: Woods & Poole Total Employment Estimates and Projections for Burleigh and Morton Counties, 2010, 2025, 2040

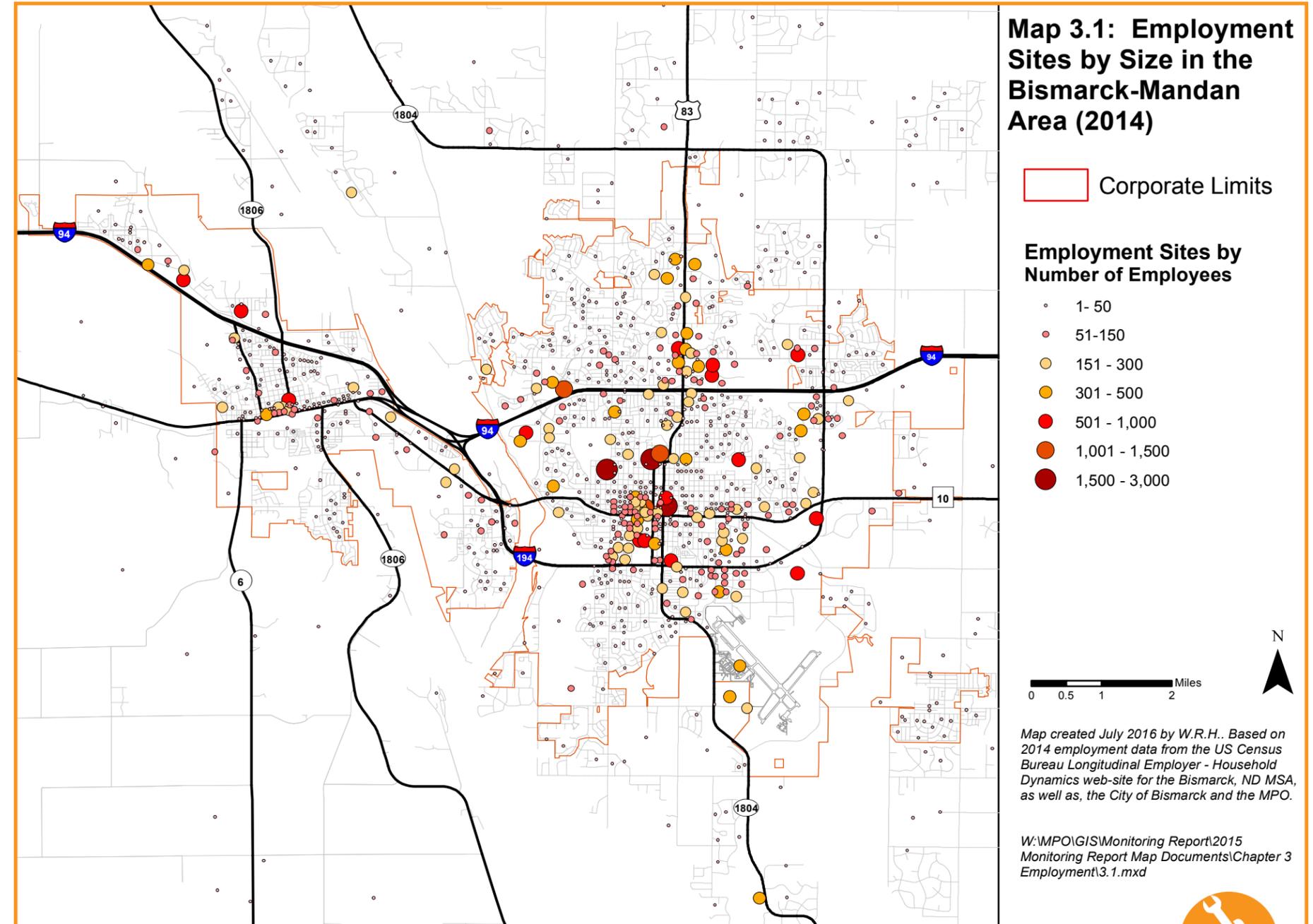
Year	2010	2025	2040
Estimate and Projection	79,414	99,279	124,388

Estimates and projections based on Woods & Poole Excel Spreadsheets associated with the Burleigh County and Morton County 2012 Data Pamphlet.

LOCATIONS

The following maps depict the location of existing and projected employment within the region. The first map identifies employment site locations by number of employees based on 2011 data. Additional maps identify recent building permit activity for Retail, Service, and (all) Other employment categories. The final series of maps in this chapter identify locations of projected employment between 2010 and 2040 by Transportation Analysis Zone (TAZ). Although the bulk of projected employment is identified on the perimeters of the communities of Bismarck, Lincoln, and Mandan building permits issued over the past 5 years indicate activity in both the mature parts of Bismarck and Mandan, as well as, developing areas on the perimeters of the communities. The locations of building permits for businesses, within the region, are monitored to ensure consistency with projected employment locations.

Map 3.1: Employment Sites by Size in the Bismarck-Mandan Area (2014)



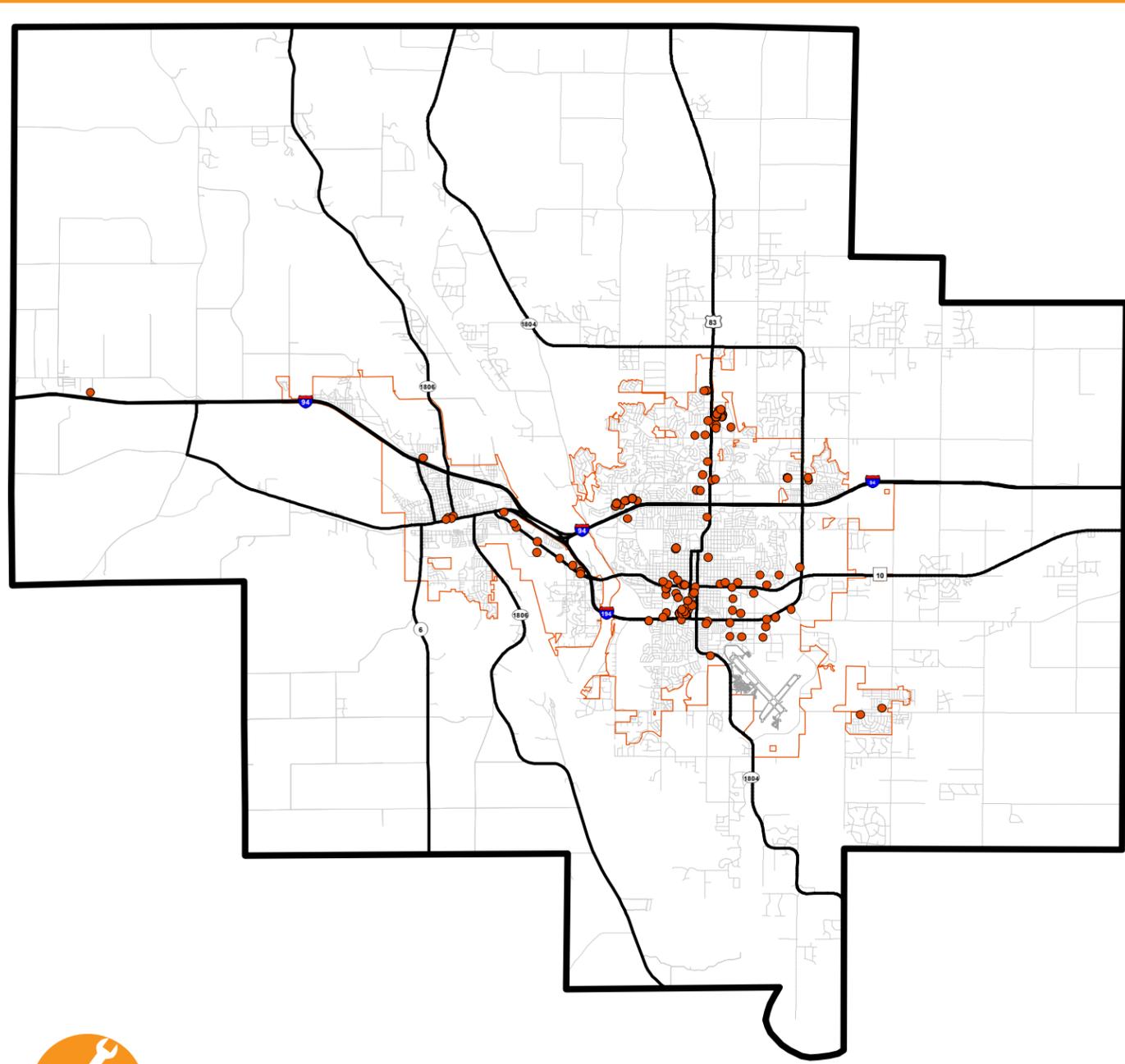
Corporate Limits

Employment Sites by Number of Employees

- 1- 50
- 51-150
- 151 - 300
- 301 - 500
- 501 - 1,000
- 1,001 - 1,500
- 1,500 - 3,000

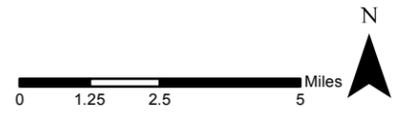
Map created July 2016 by W.R.H.. Based on 2014 employment data from the US Census Bureau Longitudinal Employer - Household Dynamics web-site for the Bismarck, ND MSA, as well as, the City of Bismarck and the MPO.

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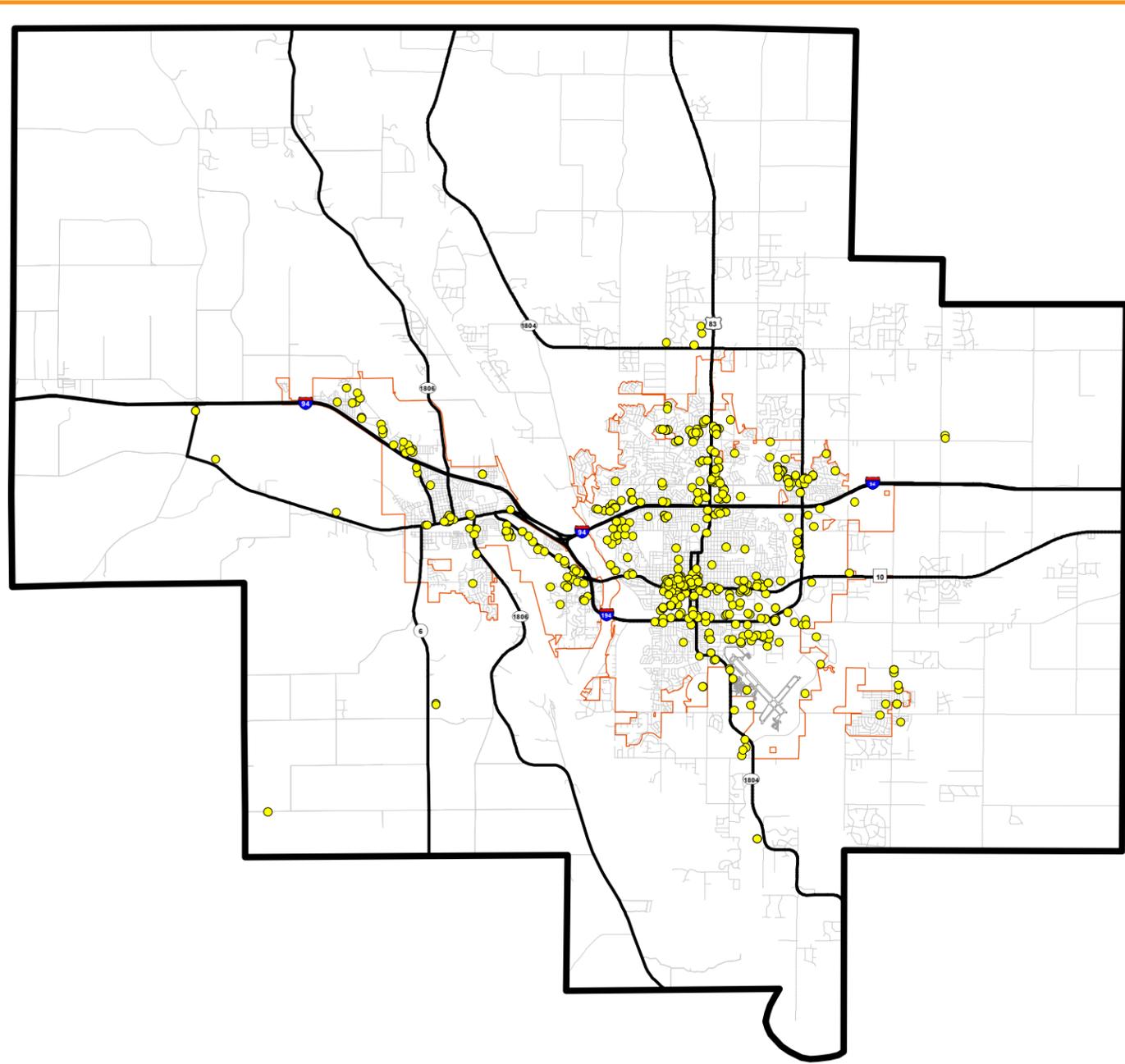
Map 3.2: Bismarck-Mandan MPO Area Building Permits Issued by Employment Type: Retail (2010-2015)

- MPO Boundary
- Corporate Limits
- Retail



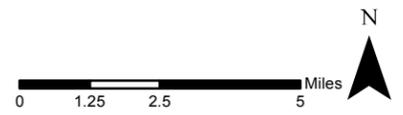
Map created July 2016 by W.R.H. Based on data maintained by the City of Bismarck and the Bismarck-Mandan MPO. Building permit information was based on data maintained by the City of Bismarck, the City of Mandan, Burleigh County and Morton County.

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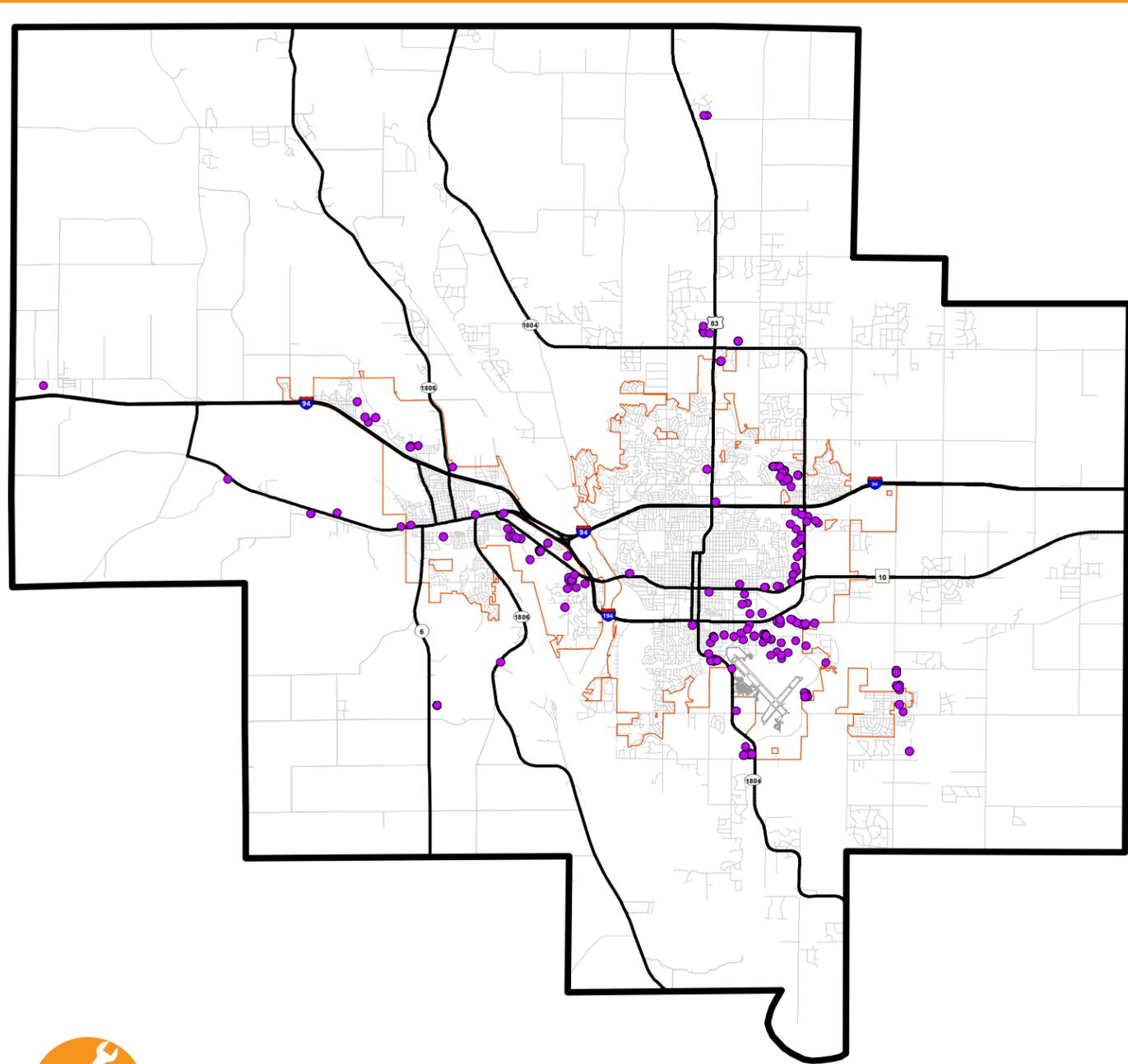
Map 3.3: Bismarck-Mandan MPO Area Building Permits Issued by Employment Type: Service (2010-2015)

- MPO Boundary
- Corporate Limits
- Service



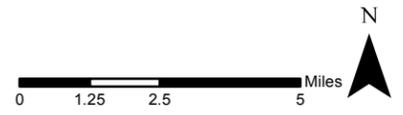
Map created July 2016 by W.R.H. Based on data maintained by the City of Bismarck and the Bismarck-Mandan MPO. Building permit information was based on data maintained by the City of Bismarck, the City of Mandan, Burleigh County and Morton County.

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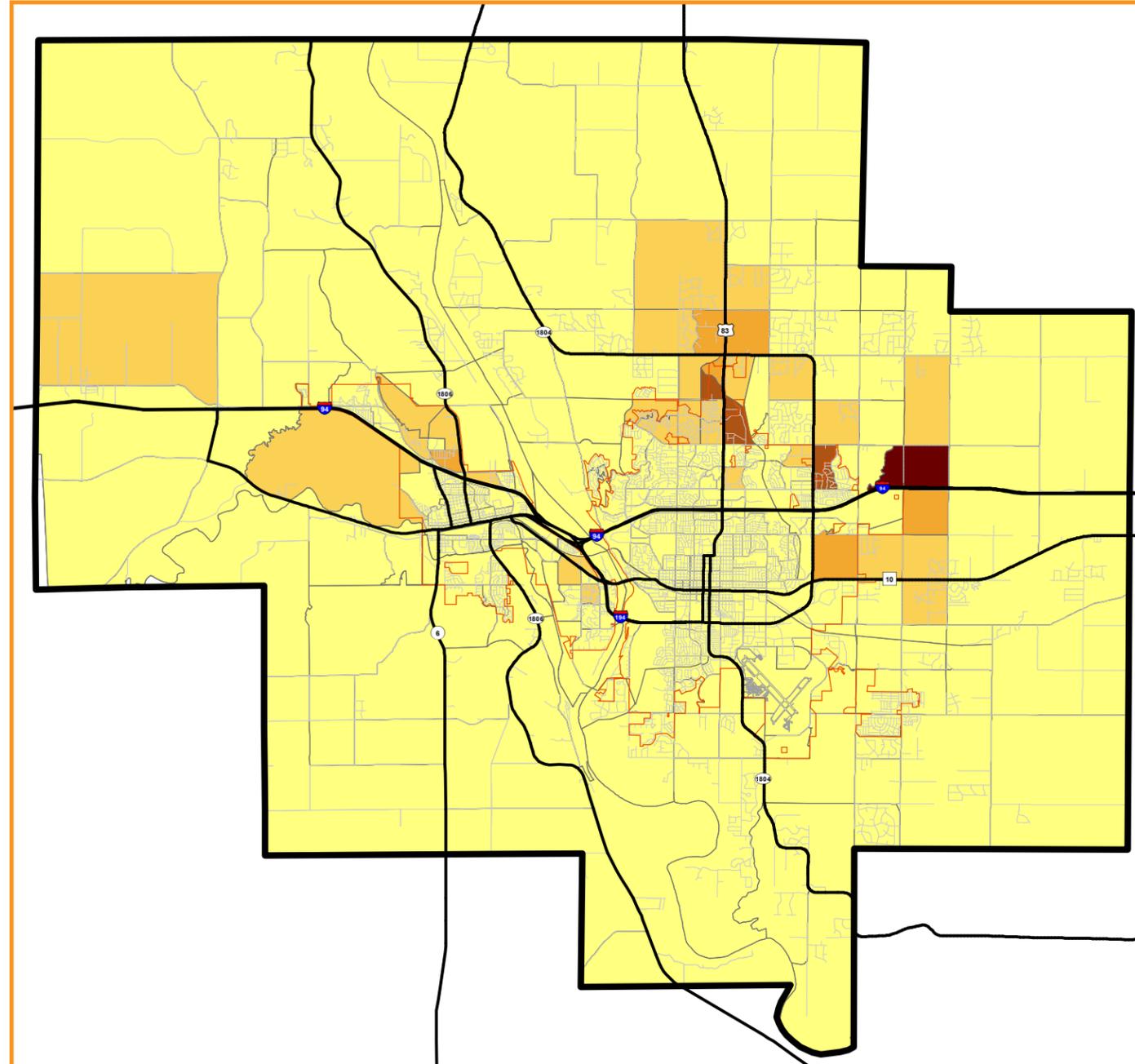
Map 3.4: Bismarck-Mandan MPO Area Building Permits Issued by Employment Type: Other (2010-2015)

- MPO Boundary
- Corporate Limits
- Other



Map created July 2016 by W.R.H. Based on data maintained by the City of Bismarck and the Bismarck-Mandan MPO. Building permit information was based on data maintained by the City of Bismarck, the City of Mandan, Burleigh County and Morton County.

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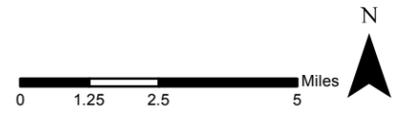


Map 3.5: Bismarck-Mandan MPO Projected Retail Employment Change by TAZ, 2010-2040 (High Growth Scenario)

- MPO Boundary
- Corporate Limits

Projected Retail Change

- 0 - 50
- 51 - 250
- 251 - 500
- 501 - 750
- 751 - 1,161



Map created July 2016 by W.R.H. Map based on data maintained by the City of Bismarck and the Bismarck-Mandan MPO. The change in employment locations between 2010-2040 was based on the "High Growth" scenario developed by the Bismarck-Mandan MPO for development of the Long Range Transportation Plan.

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