Bismarck Demographic Analysis

U.S. 83 Strategic Corridor Study

AECOM Economics

DRAFT

March 9, 2018

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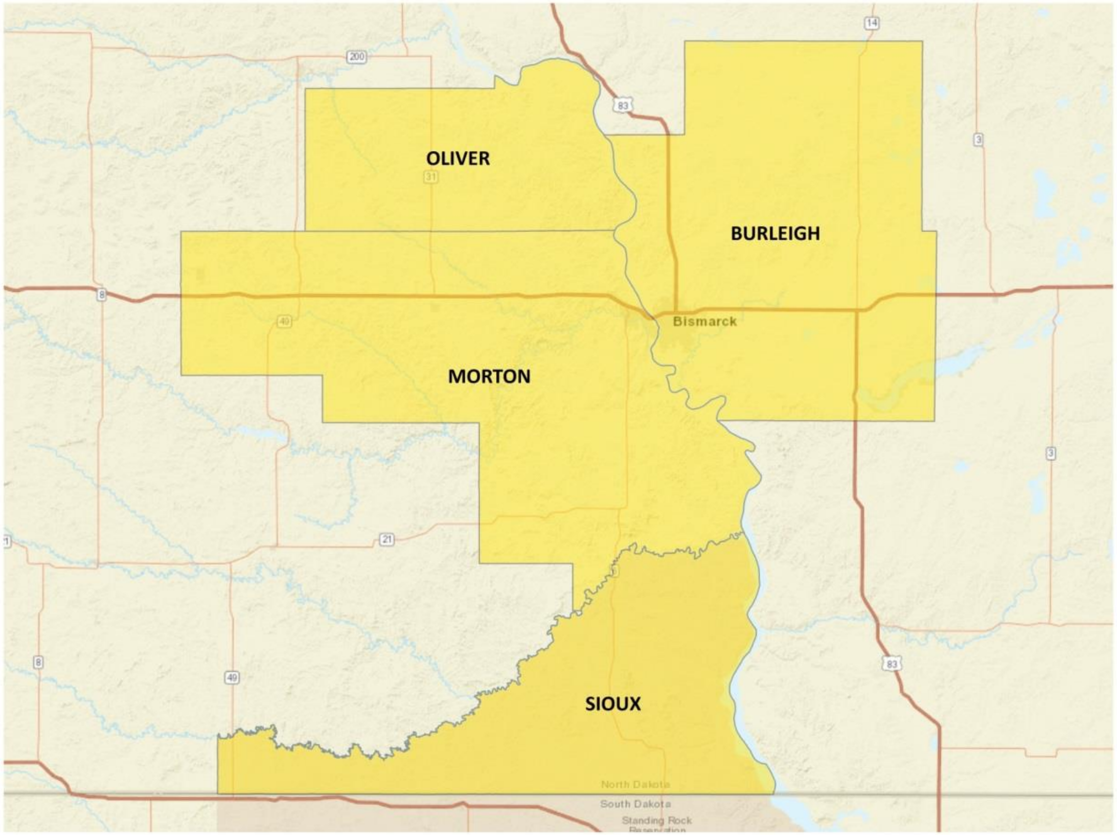

The Bismarck MSA includes Burleigh, Morton, Oliver and Sioux Counties.

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Key Implications

- Annualized population growth within the region continued to outpace the state of North Dakota and U.S. from 2000 to 2016. On average, Burleigh County added 2,000 residents per year from 2010 to 2016, over double that of the pre-recession period.
- The North Dakota Department of Commerce projects population growth rates to face a steep decline from 2.6% (2010-2016) to 0.9% from 2020 to 2030. In comparison, the Bismarck MPO forecasts more moderate rates over the same periods at 2.1% and 1.7%, respectively.
- Bismarck remains slightly older than the state median age at 37.1 (compared to 35.2). However, the MSA has become younger than the U.S. median (37.7) since 2000. Average household size in Burleigh County has declined from 2.42 in 2000 to 2.30 in 2016.
- Burleigh County continues to densify as residents from the peripheral counties of Morton, Oliver and Sioux find employment opportunities within the city center. Burleigh County captured 4% of peripheral county population between 1990 and 2016.
- The Bismarck MSA has 58,903 total housing units, 71% of which are in Burleigh County. Contrary to U.S. trends, Bismarck and the state are gaining more residents and housing units in the current period than pre-recession. Bismarck regularly delivered above the average housing stock replacement rate while maintaining high demand from new residents. Morton County is adding housing faster than all other MSA counties at 3.3%.
- Bismarck boasts a low unemployment rate of 2.9% in comparison to the U.S. at 4.9%. Sectors with the highest employment growth in Bismarck include retail trade and accommodations, wholesale trade, healthcare services and construction.
- Petroleum wholesale has become the most highly concentrated employment sector within the Bismarck MSA relative to the U.S. with a location quotient of 4.39. Crude oil production in North Dakota has increased from 1.5% of total U.S. production in 2000 to 11.7% in 2016.

Demographic Summary

Bismarck MSA Summary Table

Population

	2000	2010	2016	2000-2016 CAGR	2000 State Market Share	2016 State Market Share
Bismarck	101,020	115,277	131,635	1.7%	15.7%	17.4%
North Dakota	642,023	674,526	757,952	1.0%		
USA	282,162,411	309,338,421	323,405,935	0.9%		

Employment

	2000	2010	2016	2000-2016 CAGR	2000 State Market Share	2016 State Market Share
Bismarck	54,891	62,040	68,031	1.4%	16.5%	16.9%
North Dakota	332,407	364,053	403,067	1.2%		
USA	136,879,200	139,038,712	151,426,872	0.6%		

Households

	2000	2010	2016	2000-2016 CAGR	2000 State Market Share	2016 State Market Share
Bismarck	39,445	47,179	56,642	2.3%	15.3%	17.0%
North Dakota	257,152	281,192	332,577	1.6%		
USA	105,480,101	116,716,292	123,158,887	1.0%		

Housing Units

	2000	2010	2016	2000-2016 CAGR	2000 State Market Share	2016 State Market Share
Bismarck	41,709	50,174	58,903	2.2%	14.4%	16.0%
North Dakota	289,677	318,215	368,624	1.5%		
USA	115,904,641	131,801,341	135,697,926	1.0%		

Bismarck Counties Summary Table

Population

	2000	2010	2016	2000-2016 CAGR	2000 Market Share	2016 Market Share
Burleigh	69,534	81,714	94,487	1.9%	69%	72%
Morton	25,332	27,576	30,809	1.2%	25%	23%
Oliver	2,051	1,837	1,870	-0.6%	2%	1%
Sioux	4,103	4,150	4,469	0.5%	4%	3%

Employment

	2000	2010	2016	2000-2016 CAGR	2000 Market Share	2016 Market Share
Burleigh	39,178	44,662	49,587	1.5%	71%	73%
Morton	13,441	15,263	16,314	1.2%	24%	24%
Oliver	1,080	874	854	-1.5%	2%	1%
Sioux	1,192	1,241	1,277	0.4%	2%	2%

Households

	2000	2010	2016	2000-2016 CAGR	2000 Market Share	2016 Market Share
Burleigh	27,670	33,976	41,204	2.5%	70%	73%
Morton	9,889	11,289	13,479	2.0%	25%	24%
Oliver	791	756	771	-0.2%	2%	1%
Sioux	1,095	1,158	1,188	0.5%	3%	2%

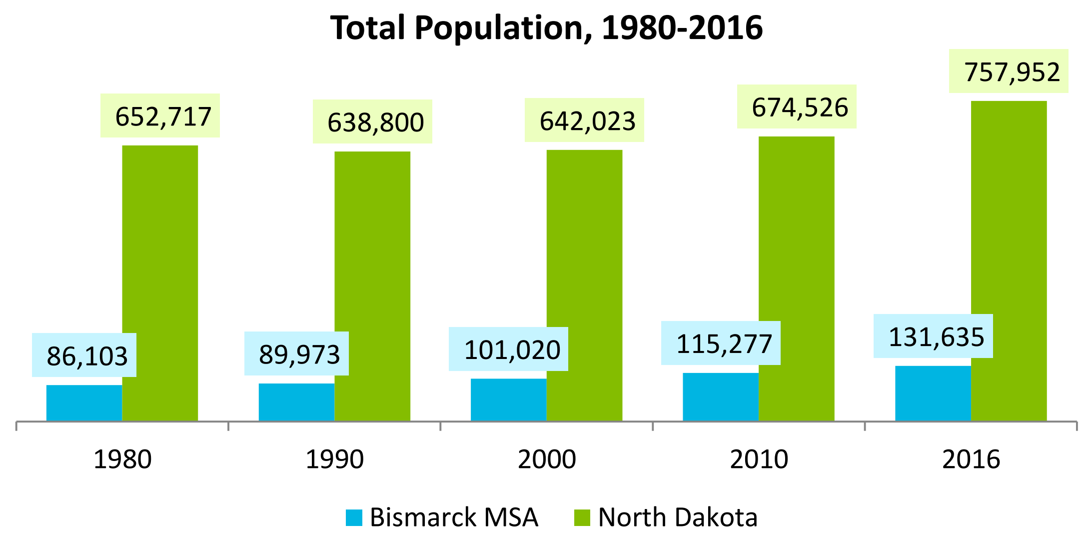
Housing Units

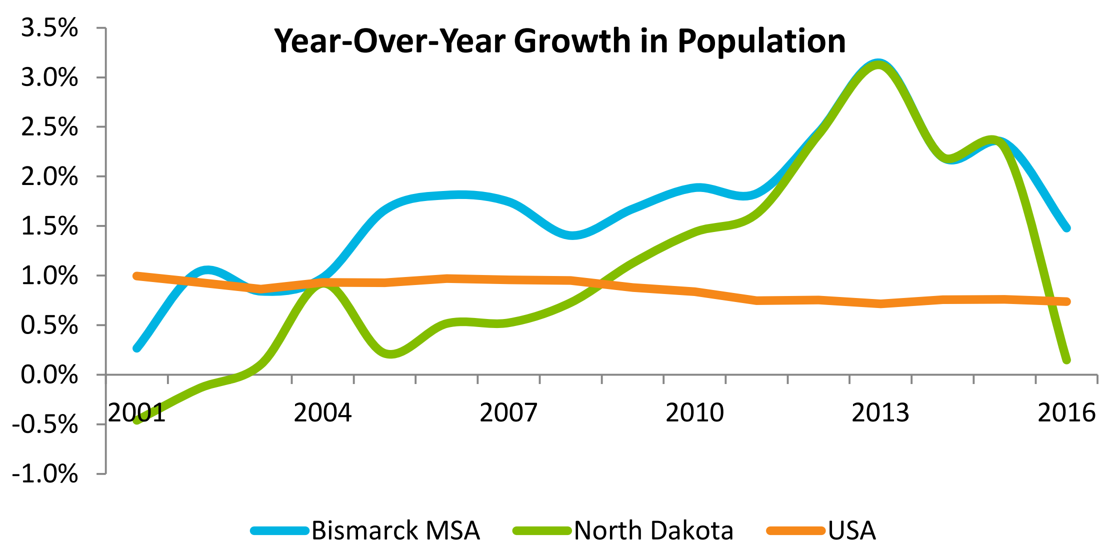
	2000	2010	2016	2000-2016 CAGR	2000 Market Share	2016 Market Share
Burleigh	29,003	35,858	41,962	2.3%	70%	71%
Morton	10,587	12,100	14,660	2.1%	25%	25%
Oliver	903	905	947	0.3%	2%	2%
Sioux	1,216	1,311	1,334	0.6%	3%	2%

Population and Projections

Population

- The Bismarck MSA offers a population of roughly 130,000 residents.
- The region grew at 1.2% annually, faster than the state (0.4%) and U.S. (1%) from 1980 to 2016.
- 16% of the state population resides in the Bismarck region, up from 13% in 1980.
- Bismarck and the state had compound annual growth rates increase from 2010 to 2016 compared to 1980 to 2007, while the U.S. declined.





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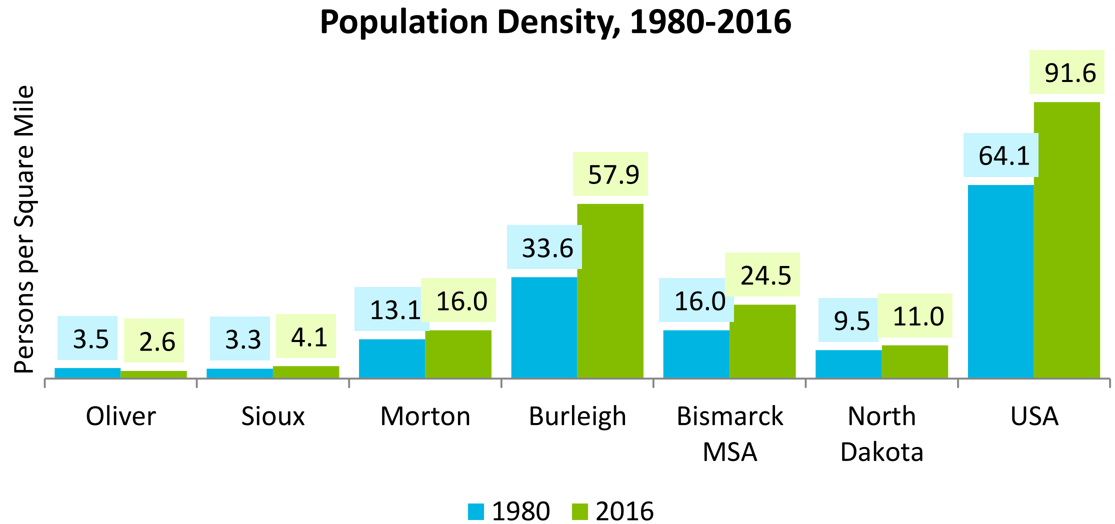
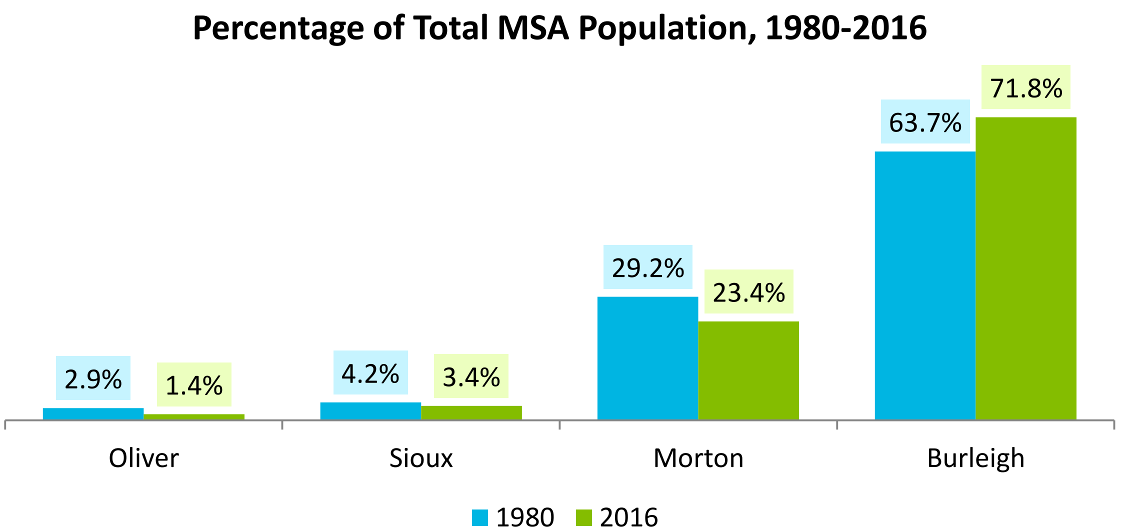
Source: U.S. Census Bureau Population Totals Datasets

Population by County

- Bismarck is densifying at nearly three times the rate of the state.
- Burleigh County represents the majority share of the region's total population, taking a share of all other counties since 1980.
- Burleigh had the highest annual growth rate from 1980 to 2016 at 1.5%.
- Oliver is the only county in the MSA to decline in population since 1980.

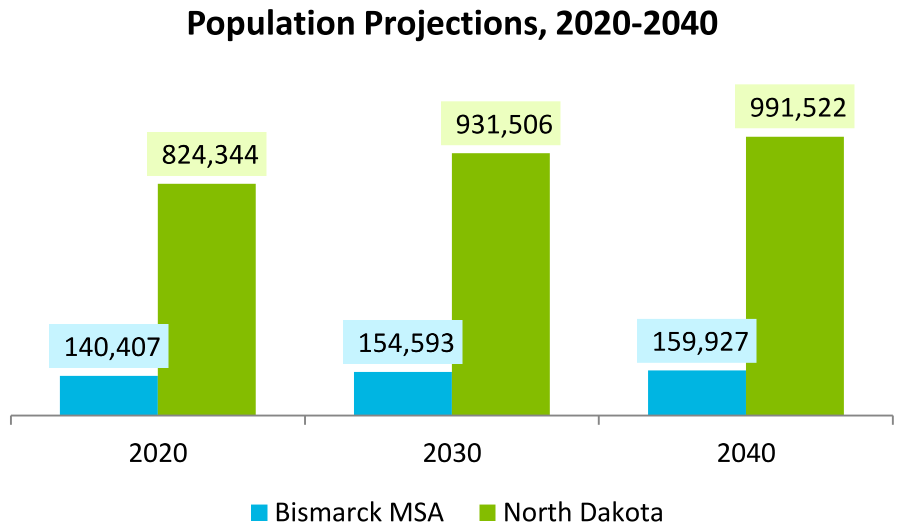


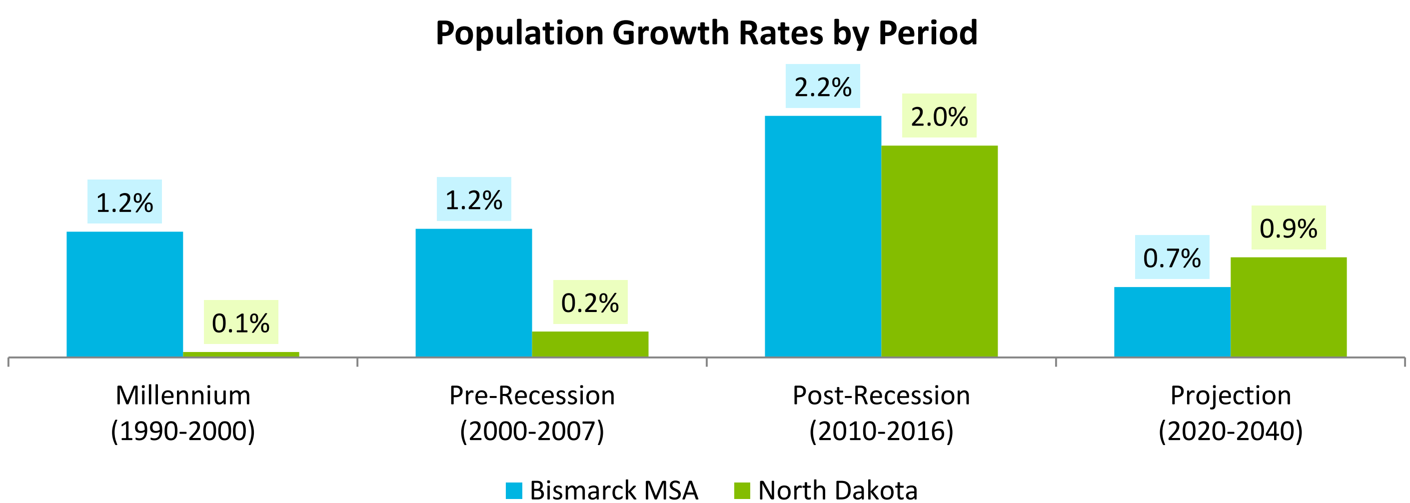


Source: U.S. Census Bureau Population Totals Datasets

Population Projections

- According to the U.S. Census, Bismarck and the state saw compound annual growth rates increase from 2010 to 2016 compared to 1990 to 2007.
- The state demographer projected that Bismarck would grow at a rate of 2.5% from 2010 to 2015, or 114,778 residents to 129,649. Comparatively, the Census estimated growth at 2.4% for the MSA, or 115,277 residents to 129,717. The state projected faster growth than the Census.
- Growth moving forward to 2040 is expected to be slower than the current period (2010-2016).





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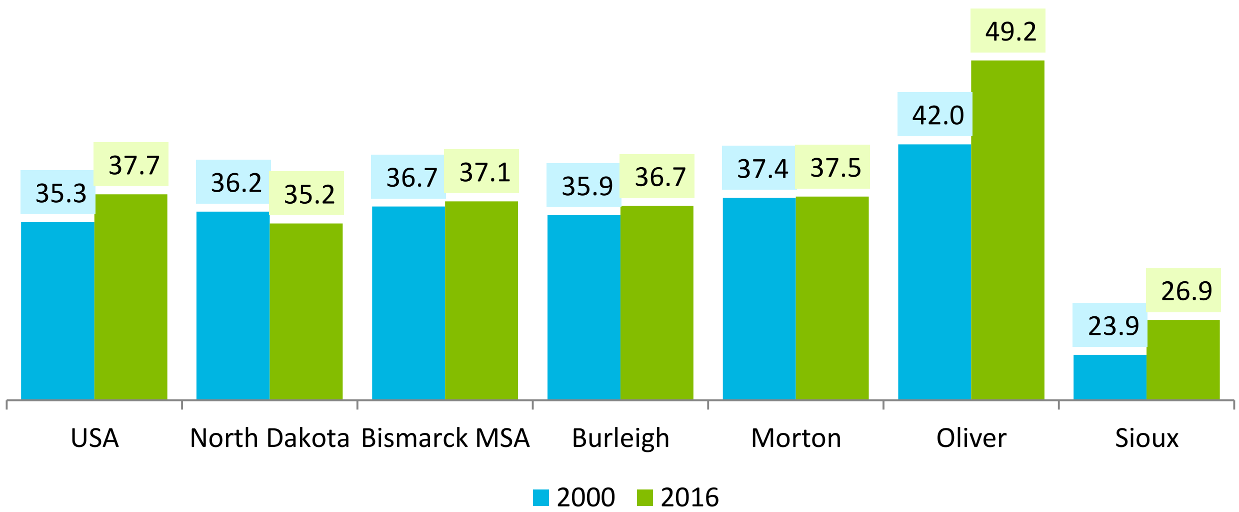
Source: U.S. Census Bureau Population Totals Datasets, North Dakota Department of Commerce

Population Characteristics

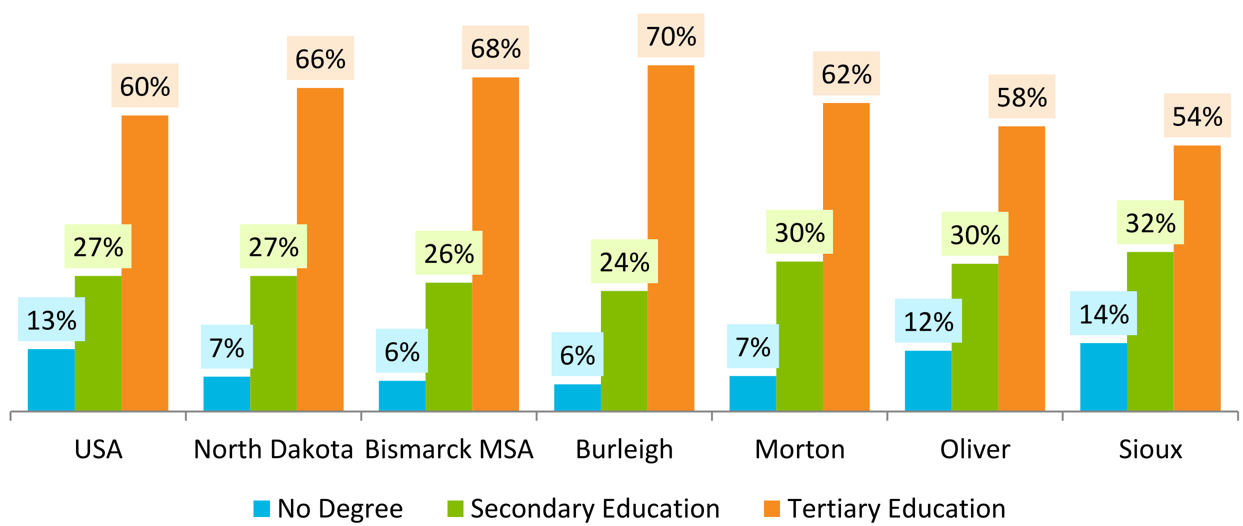
Age and Education

- The Bismarck population remains slightly older than the state median age. However, Bismarck has become younger than the U.S. median since 2000.
- Median age in Sioux County is significantly younger than all comparable geographies, while Oliver County is significantly older.
- Bismarck is a highly educated market with 68% having pursed tertiary education, higher than the state and U.S. average. Burleigh County boasts an even higher attainment of 70%.
- Only 6% of Bismarck's 25+ population lack a high school degree.

Median Age, 2000-2016



Educational Attainment, 25+



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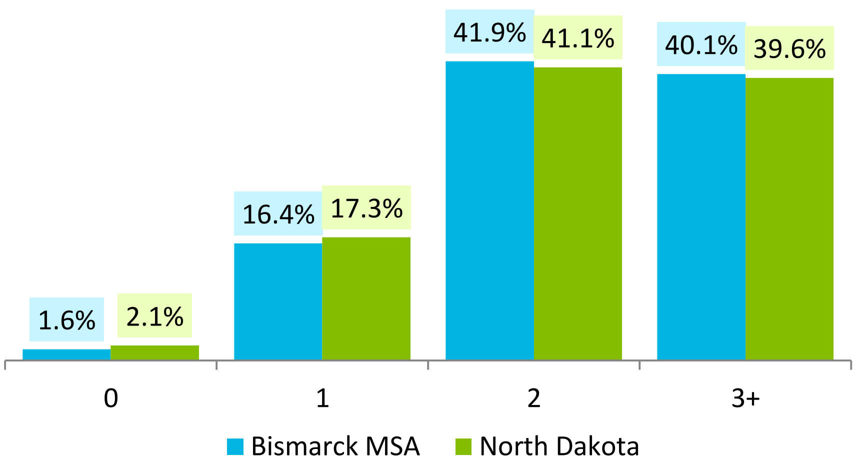
Source: American Community Survey; ESRI Business Analyst

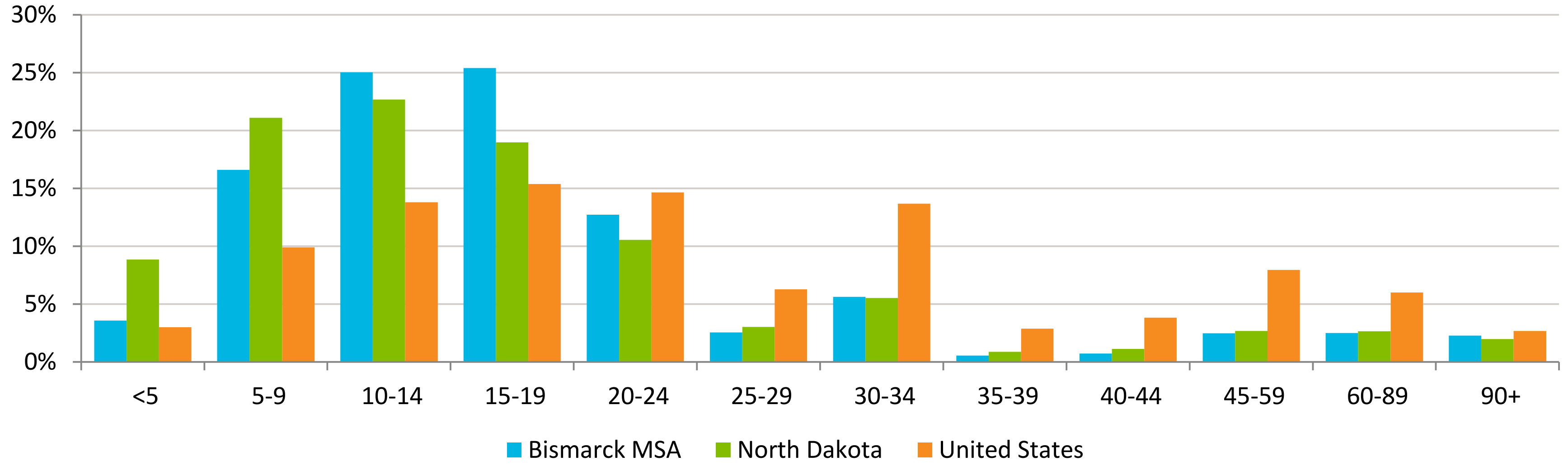
Transportation

- The majority of households in Bismarck have 2 to 3 cars.
- Employees in Bismarck have a shorter commute time (19.5 minutes) than the average US worker (28 minutes). The North Dakota average is lowest at 18.4 minutes.
- 2.3% of the workforce in Bismarck have "super commutes" in excess of 90 minutes.

Car Ownership



Daily Commute Time

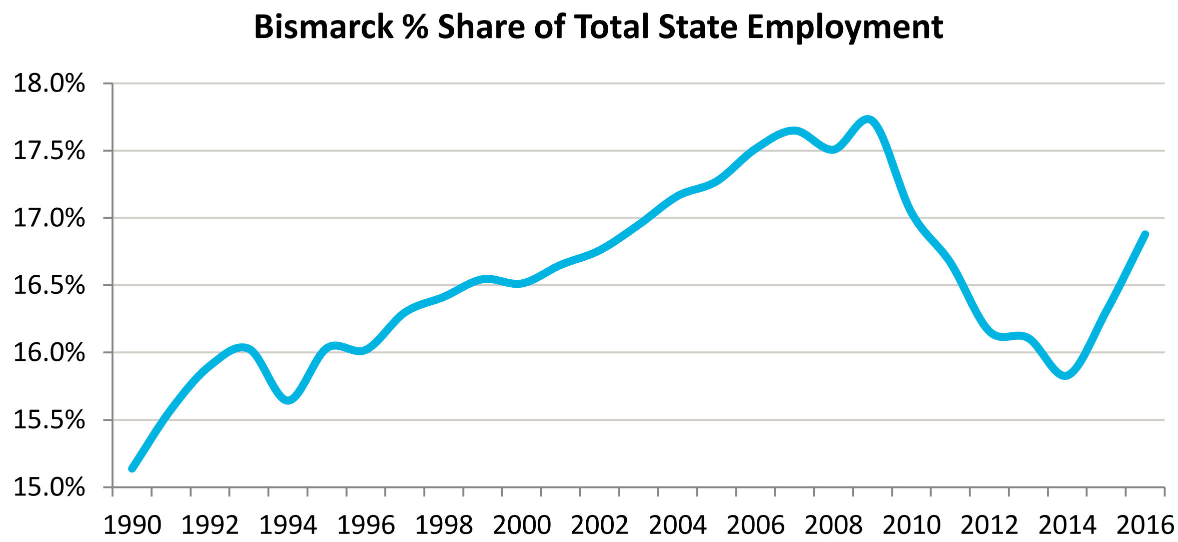


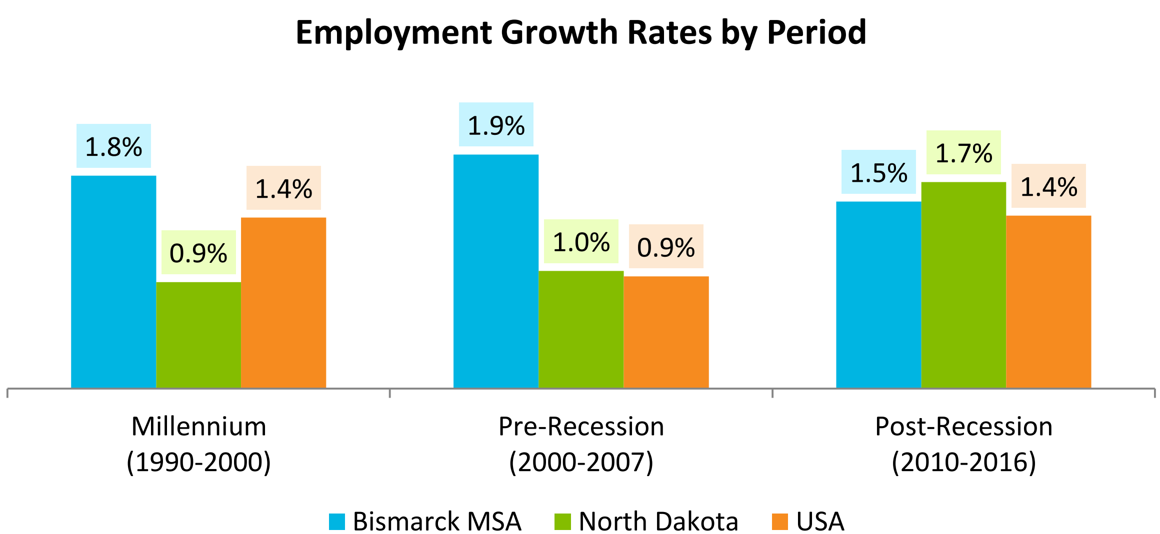
Source: American Community Survey

Employment

Employment

- North Dakota employs a total of 403,000 people. The Bismarck MSA currently employs over 68,000, or 17% share of the state.
- Employment growth has moderated for the Bismarck MSA as state employment growth rates climb to nearly double the Millennium period levels.
- The rate of employment growth in Bismarck continues to be faster than the U.S. average, although the gap is narrowing.





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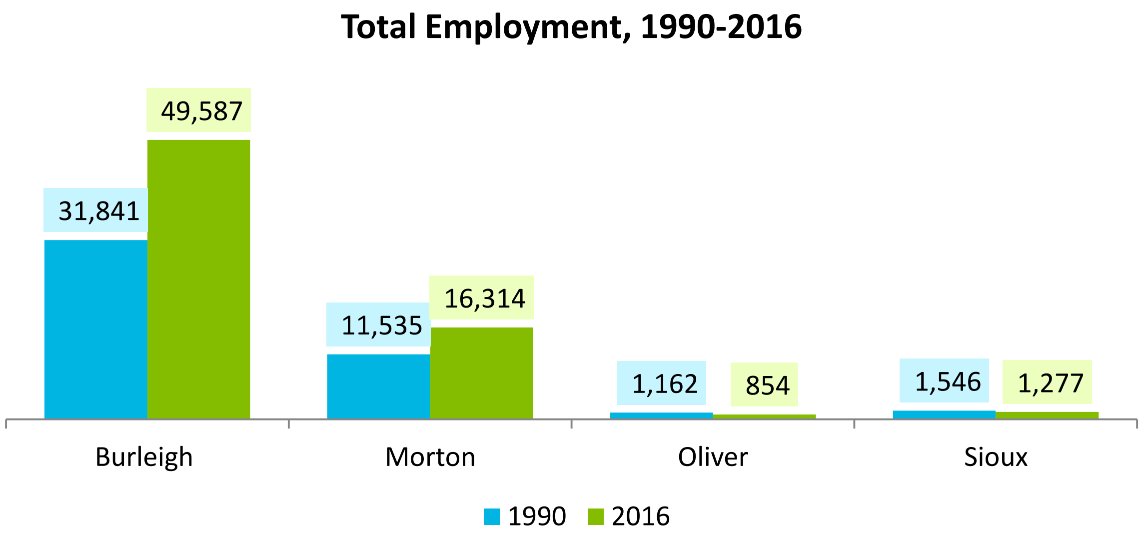
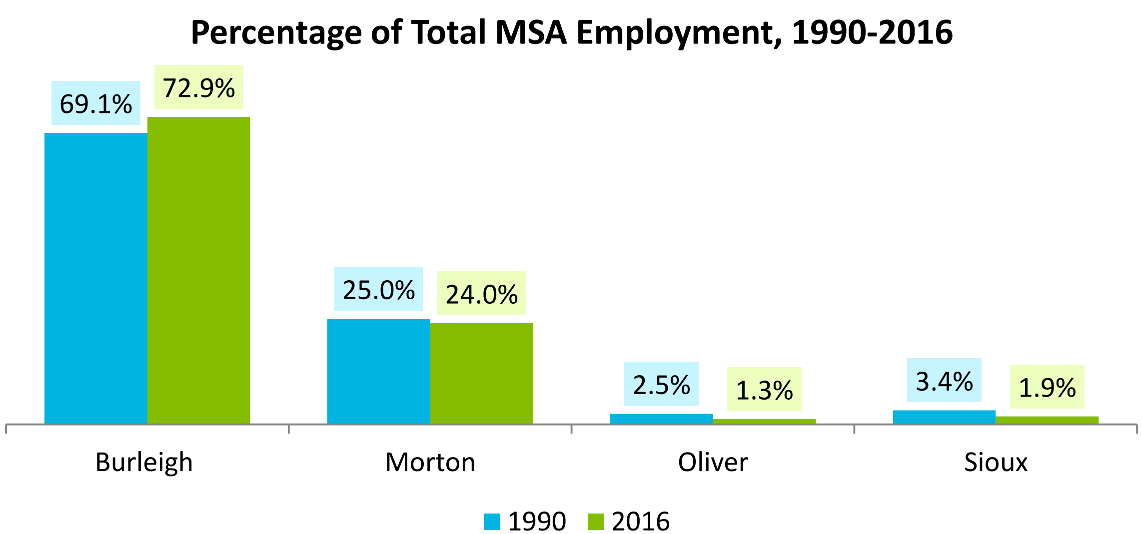
Source: Bureau of Labor Statistics

Employment

- The majority of jobs in Bismarck are within Burleigh County. Burleigh's share of total MSA employment grew from 69% in 1990 to 73% in 2016.
- Oliver and Sioux Counties have experienced a decline in total employment since 1990.
- While Morton County's share of total MSA employment has declined since 1990, the total number of jobs has grown.

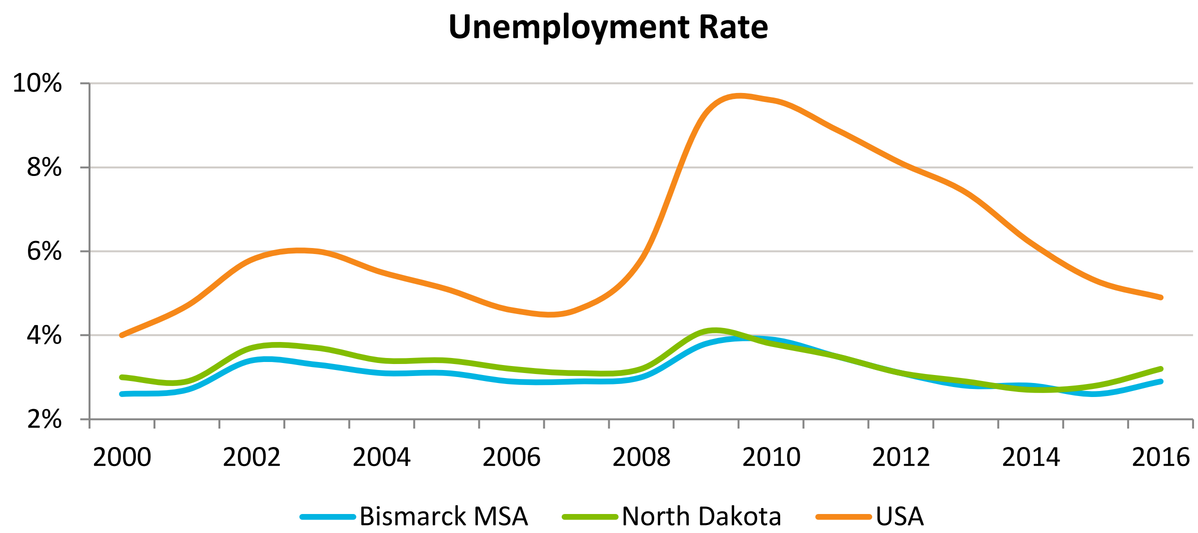


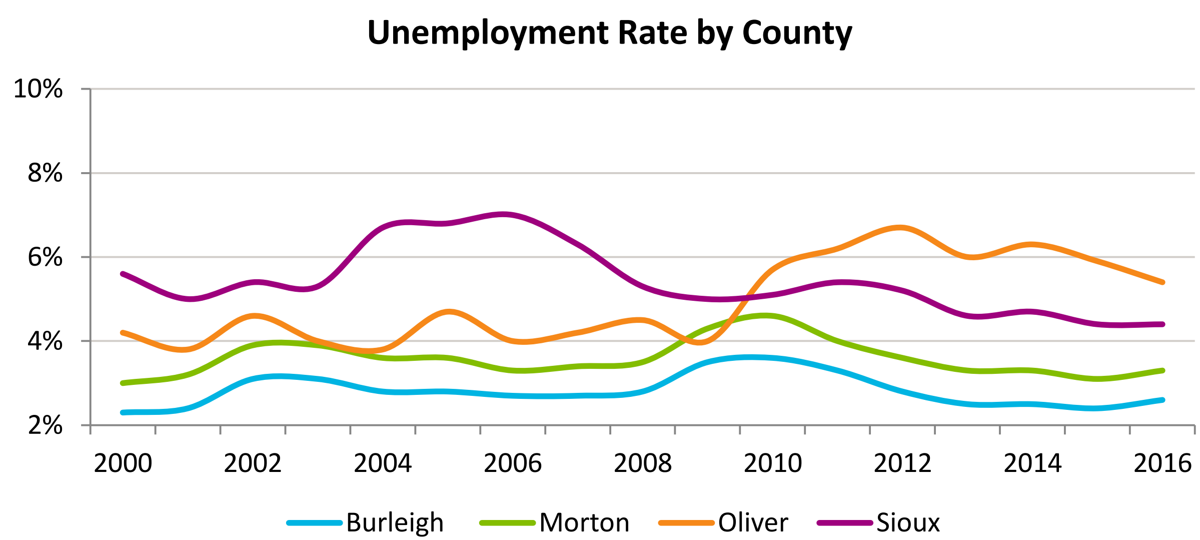


Source: Bureau of Labor Statistics

Unemployment

- Bismarck consistently has a lower unemployment rate than the state. Both Bismarck and the state maintain a significantly lower unemployment rate than the national average.
- Historically, Burleigh County has the lowest unemployment rate of the Bismarck MSA.
- With the exception of Oliver County, the Bismarck MSA has recovered to pre-recession unemployment levels.





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Source: Bureau of Labor Statistics

Labor Market Efficiency

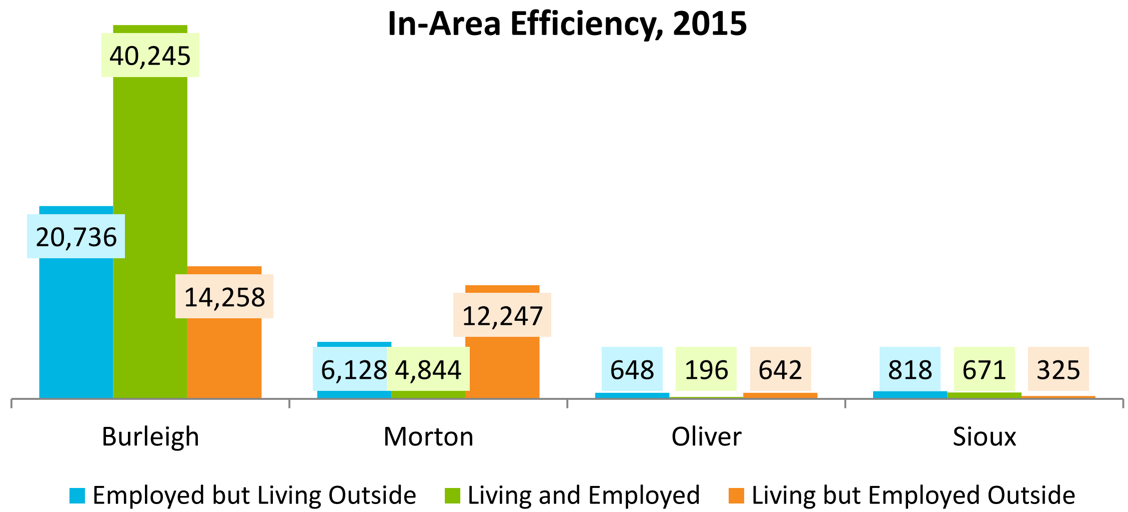
- Efficient labor markets match workers with the most suitable jobs for their skillset. The first graph examines the efficiency of the county's labor force from the home perspective. Net Job Inflow/Outflow displays whether the county is a labor force magnet or provider.

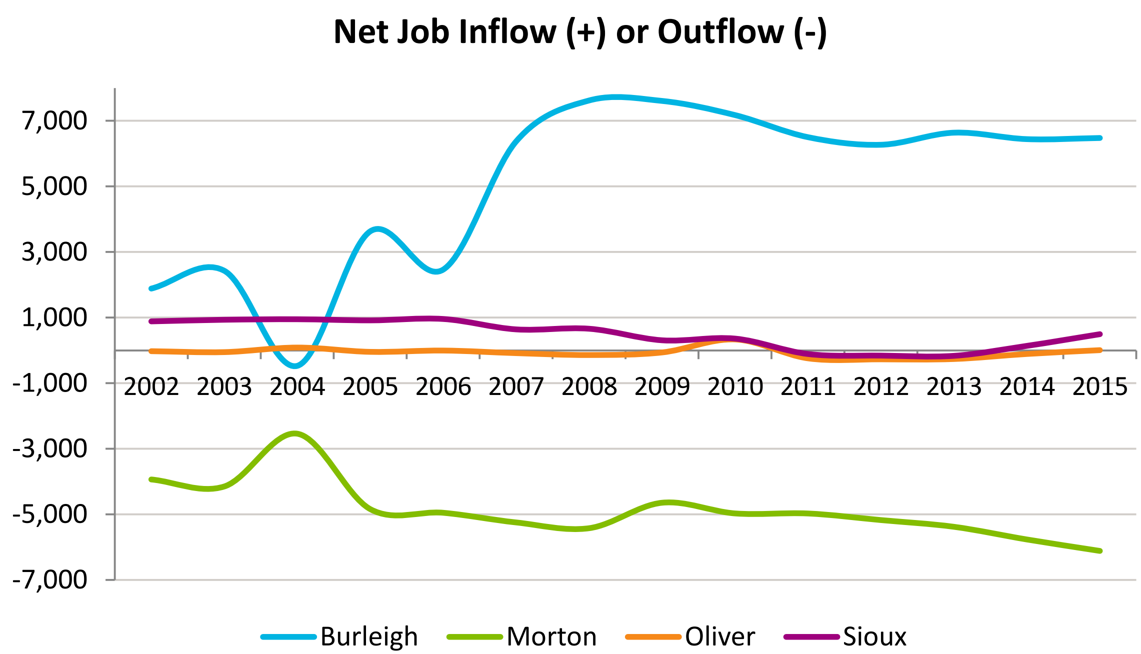
- Consistent with population and employment data, Burleigh County is a labor force magnet for the Bismarck region. It is the most densely populated county and home to downtown Bismarck.

- Morton County is the largest labor force provider for Burleigh County.

- Oliver and Sioux Counties have small, yet efficient labor markets, with the majority living and working within the county.

- Burleigh County has the highest labor force inflow within the MSA, while Morton County has the highest outflow.



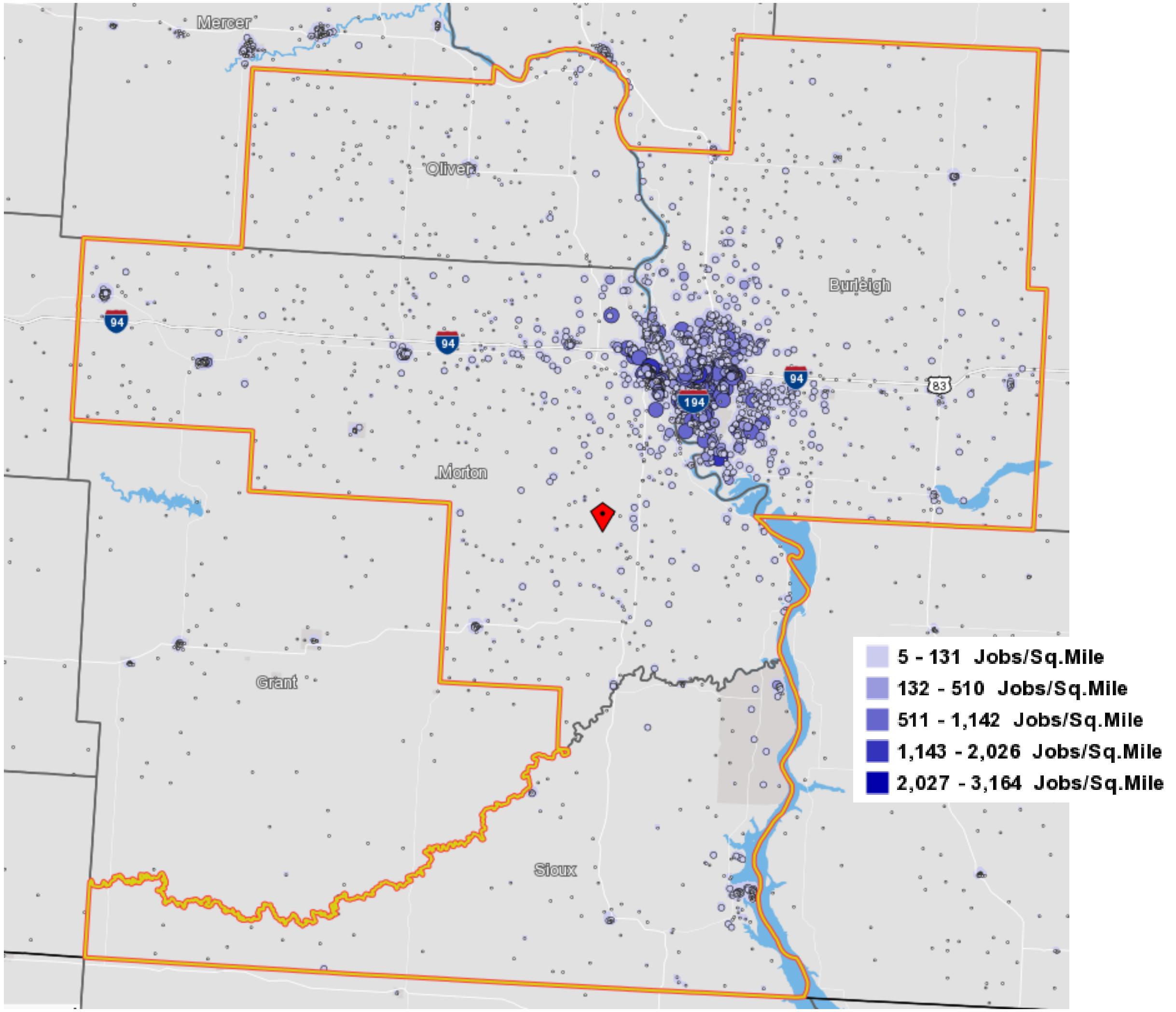


Source: U.S. Census OnTheMap

Distance/Direction Analysis

– 73% of employees within Bismarck travel less than 10 miles to work. 18% travel more than 50 miles.

– Morton County is a major labor force provider to Burleigh County. As illustrated in the map, Burleigh County is the MSA's labor force magnet.



Source: U.S. Census OnTheMap

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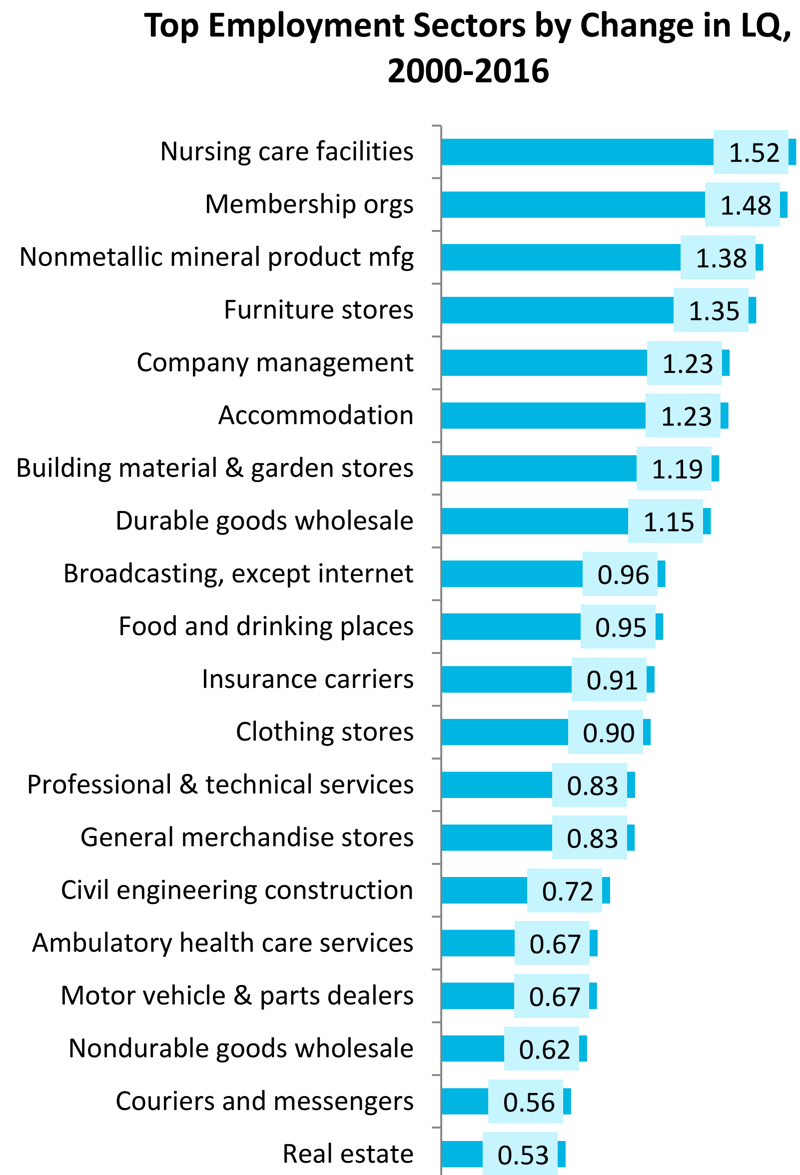
Target Industries

Target Industries Summary

- The location quotient (LQ) is a statistic that measures a region's industrial specialization relative to a larger geography. These graphs seek to capture the concentration of certain employment sectors within the Bismarck MSA in comparison to the U.S.
- The concentration of employment has grown most significantly within nursing care facilities, membership associations and organizations, and nonmetallic mineral manufacturing.
- The industries with the highest growth in Bismarck include retail trade and accommodations, wholesale trade, healthcare services and construction.
- Trade, transportation and utilities sector employs the highest number of people within the region. Petroleum wholesale is the most highly concentrated sector in Bismarck.



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Source: Bureau of Labor Statistics, 3-Digit NAICS Sectors

Target Industries – Bismarck MSA

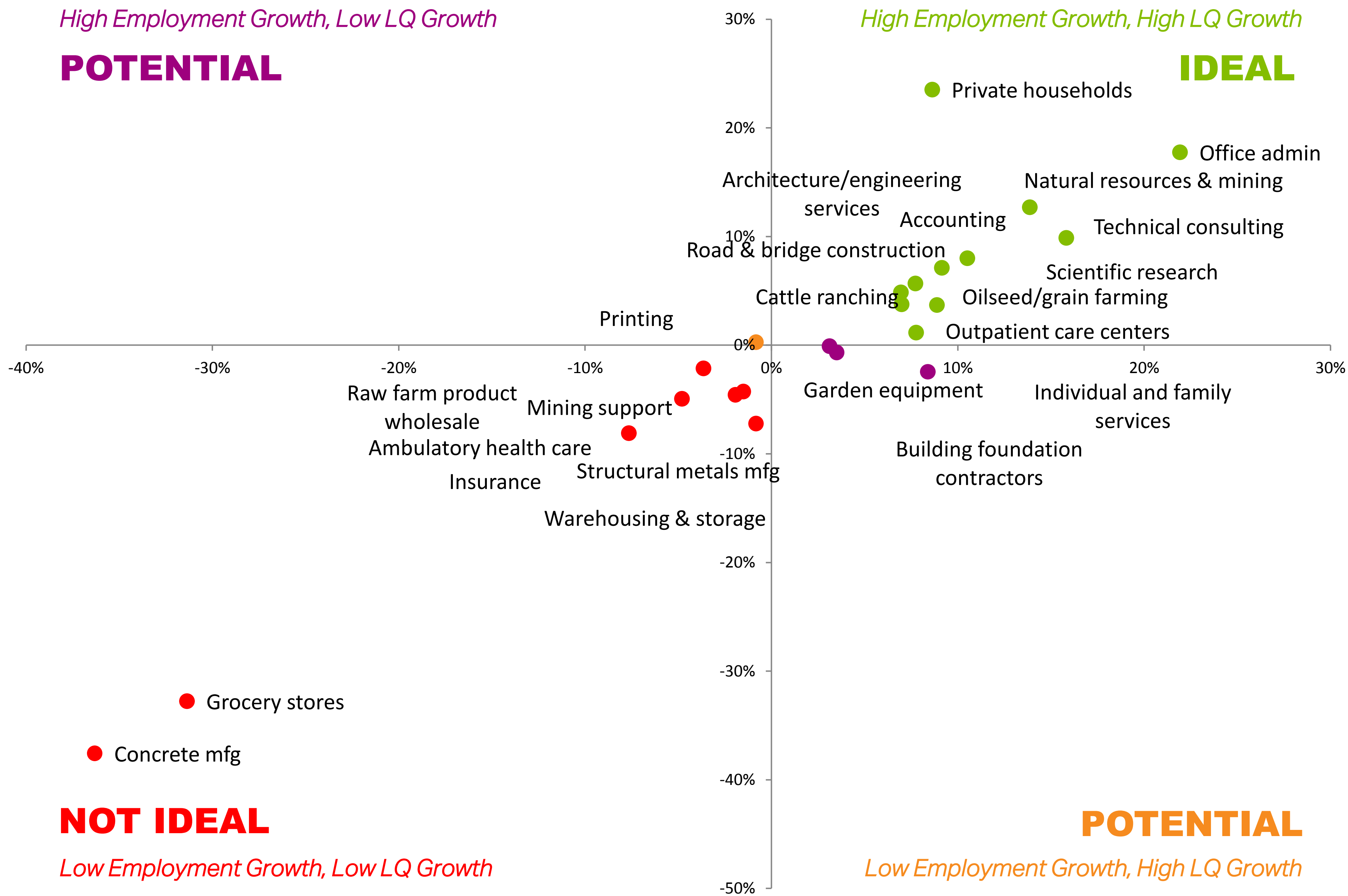
Top 25 Industry Sectors by Employment and Location Quotient, 2016

Sector	Employment
Trade, transportation, & utilities	14,293
Education & health services	13,569
Professional & business services	8,243
Leisure and hospitality	6,948
Restaurants	4,634
Construction	4,513
Financial activities	3,249
Nursing care facilities	2,033
Manufacturing	1,803
Company mgmt	1,374
Architecture & engineering	1,219
Building equipment contractors	1,218
Offices of physicians	1,148
Traveler accommodation	1,132
Depository credit intermediation	1,069
Services to buildings and dwellings	956
Automobile dealers	940
Building material dealers	880
Information	852
Individual & family services	824
Mgmt & consulting	809
Insurance carriers	768
Building foundation contractors	713
Gasoline stations	691
Employment services	647

Sector	Location Quotient
Petroleum wholesale	4.39
Motor vehicle dealers	3.16
Civic & social orgs	2.96
Drinking places	2.81
Raw farm product wholesale	2.78
Nursing care facilities	2.64
Road & bridge construction	2.49
Motor vehicle & parts wholesale	2.14
Social advocacy orgs	2.09
Radio & TV broadcasting	2.02
Machinery wholesale	1.93
Specialized freight trucking	1.86
Architecture & engineering	1.84
Building foundation contractors	1.79
Professional orgs	1.76
Commercial building construction	1.75
Building material dealers	1.67
Furniture stores	1.67
Gasoline stations	1.59
Florists	1.57
Automobile dealers	1.56
Local delivery	1.56
Home furnishings stores	1.50
Utility system construction	1.47
Office supplies & gift stores	1.45

Source: Bureau of Labor Statistics, 4-Digit NAICS Sectors

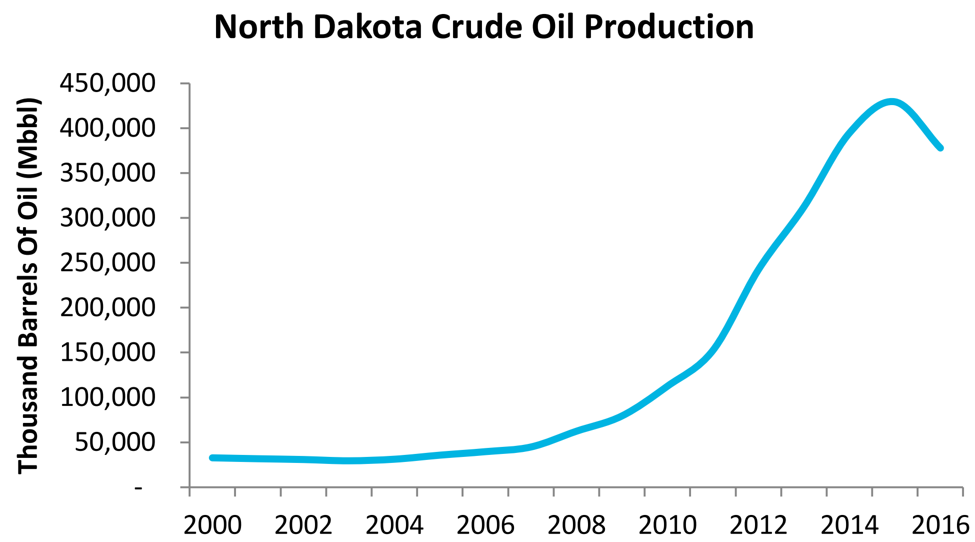
Target Industries – Bismarck MSA



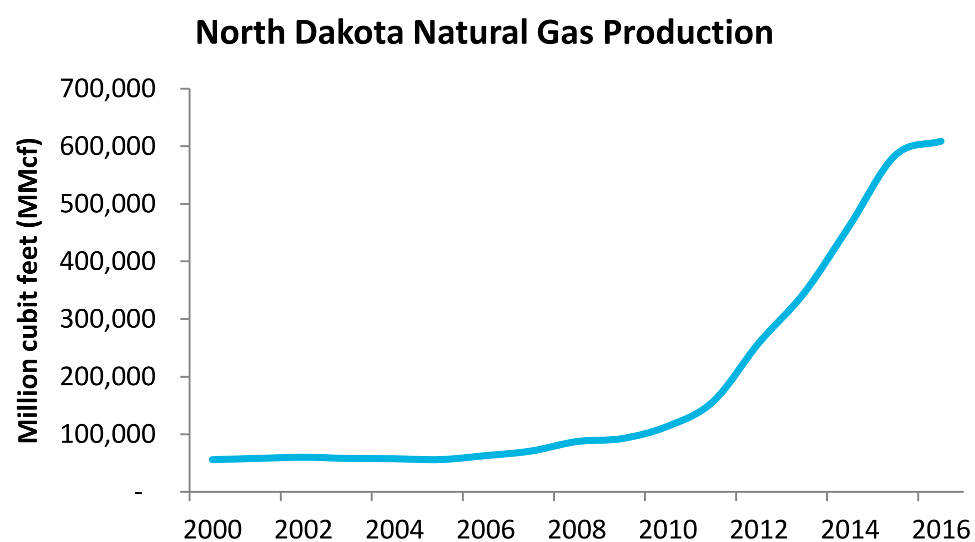
Source: Bureau of Labor Statistics

Oil and Natural Gas Production

- Petroleum wholesale is the most highly concentrated sector in Bismarck in comparison to the U.S. average.
- Crude oil production in North Dakota increased from 1.5% of total U.S. production in 2000 to 11.7% in 2016.
- Annualized growth in crude oil production within the state grew 16% from 2000 to 2016, while U.S. grew at 3% during the period.



- Natural gas production in North Dakota increased from 0.2% of total U.S. withdrawals to 1.9% in 2016.
- Annualized growth in natural gas production within the state grew 16% from 2000 to 2016, while U.S. grew at 2% during the period.



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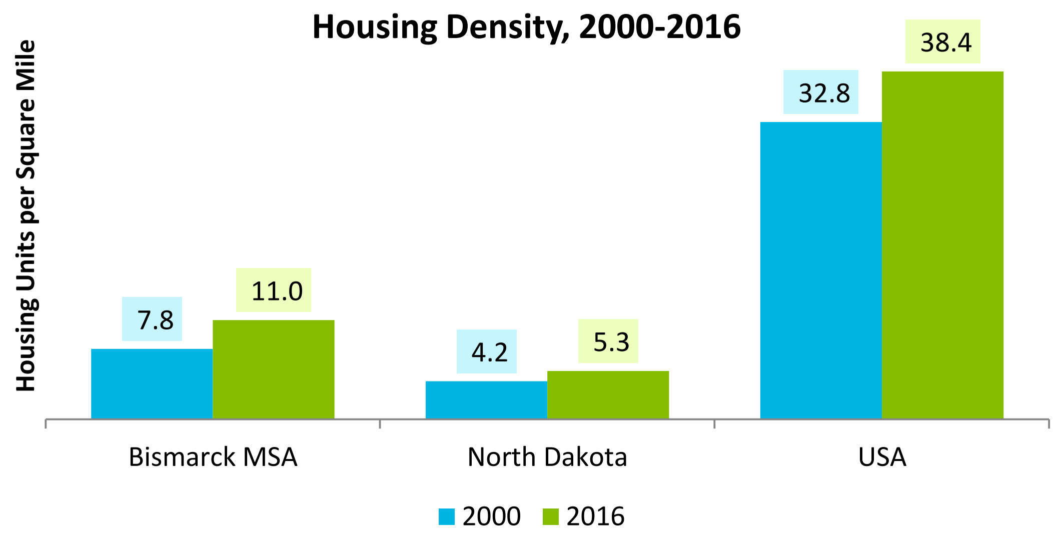
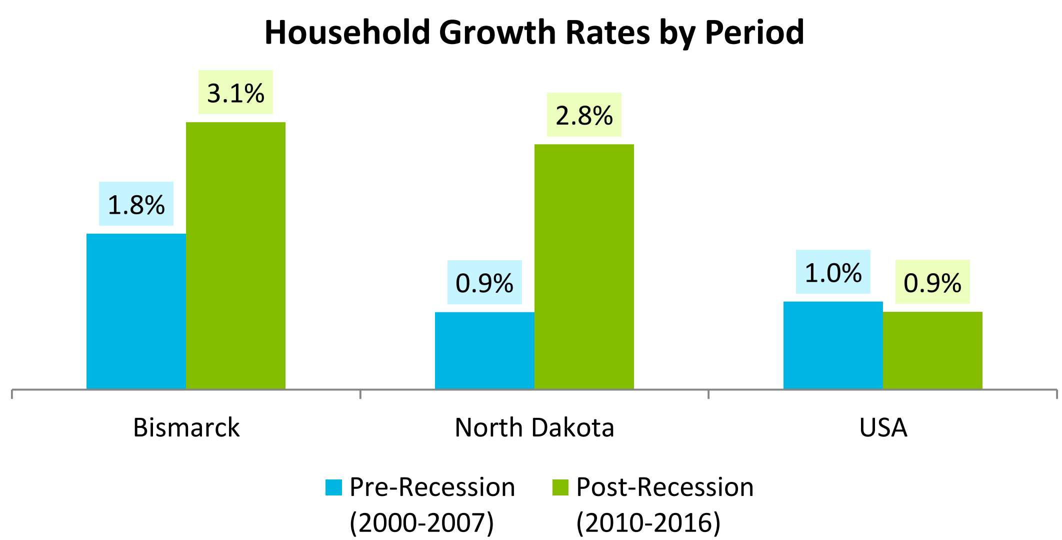
Source: U.S. Energy Information Administration

Housing

Households

- Since 2000, the Bismarck MSA population per square mile is growing at a quicker rate (2.2%) than the state (1.5%) and U.S. (1.0%) average.
- The Bismarck MSA had 56,642 households in 2016, 73% of which are in Burleigh County.
- The rate of household growth has increased in the current period (2010-16) in comparison to the pre-recession period (2000-07) for both Bismarck and the state, while the U.S. household growth rate is slowing.

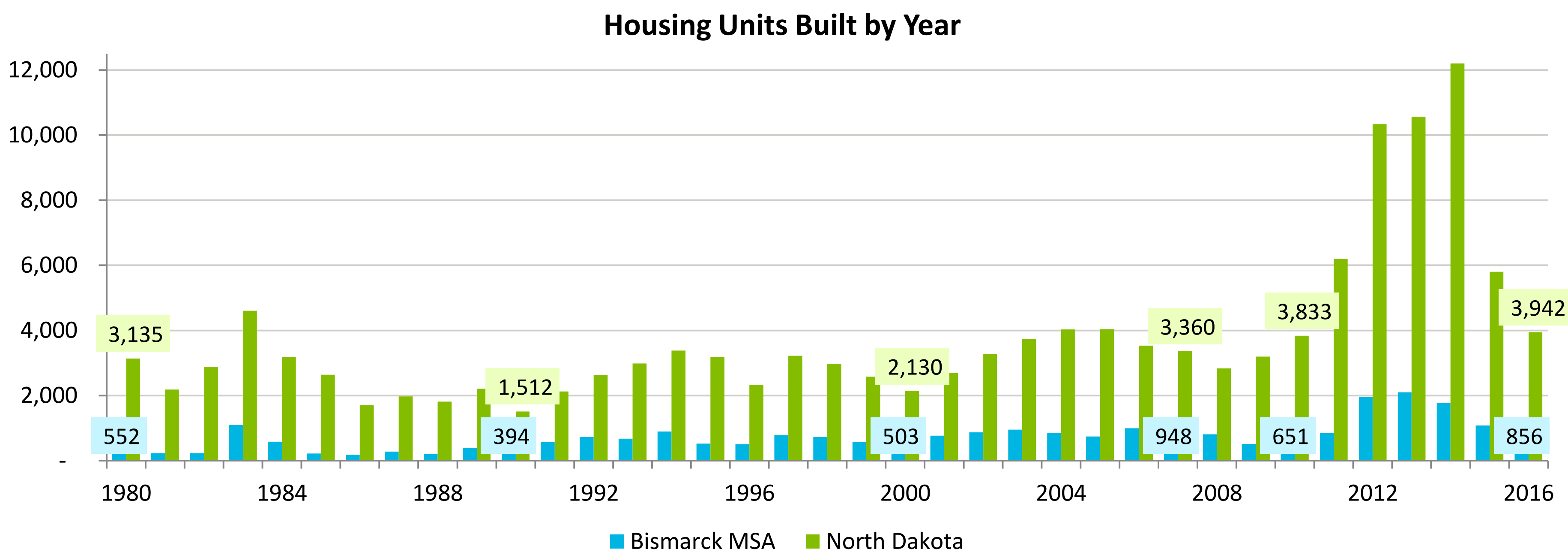




Source: U.S. Census Bureau Households and Families Datasets

Housing Construction

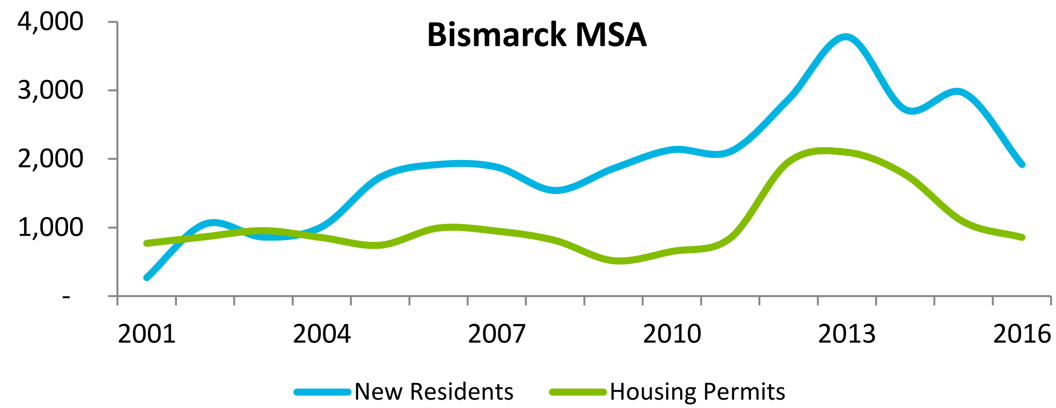
- The pace of housing construction in the state since 2008 is comparable to levels last achieved in the late 1980's.
- Housing construction in Bismarck peaked annually in 2013, with over 2,000 units.
- Burleigh and Morton Counties represent the largest housing supply while Oliver County remains small despite recent development.
- Residential housing construction in Bismarck and the state has exceeded pre-recession levels. The rate of housing unit construction recovery for Bismarck is 142% while the state is 138%.

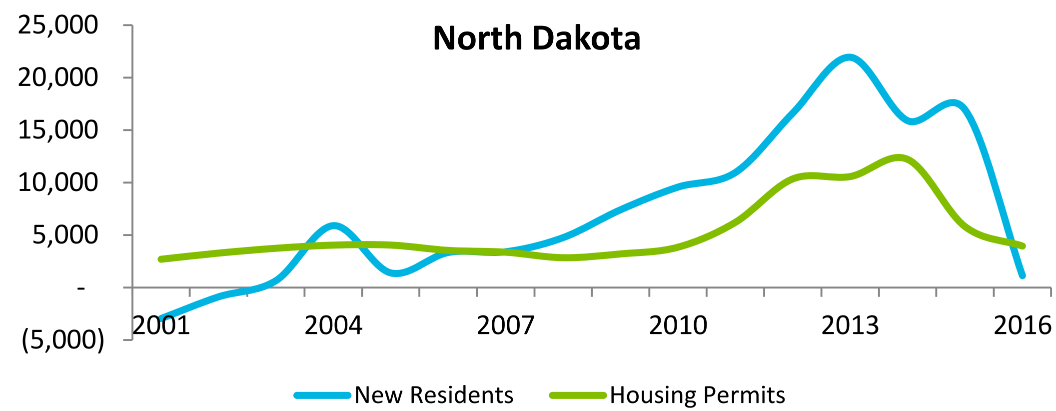


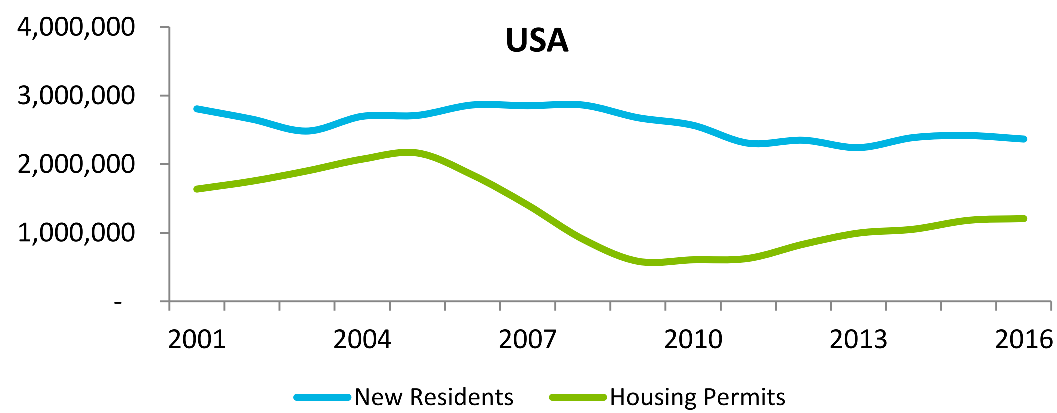
Source: U.S. Department of Housing and Urban Development

Housing Demand

- The line charts illustrate the demand for new housing by comparing the number of residents added per year to the number of new housing units built.
- While the demand for new housing has slowed in the state, Bismarck housing demand continues to outpace new housing supply.
- The annual number of permits issued per new resident has declined in all geographies; however, the decline is least significant in Bismarck.







Source: U.S. Department of Housing and Urban Development

Housing Demand *(cont.)*

- The Bismarck MSA has 58,903 total housing units, 71% of which are in Burleigh County.
- Contrary to U.S. trends, Bismarck and the state are gaining more residents and housing units in the current period than pre-recession.
- While growth in total housing units is slowing for the U.S., Bismarck and the state are adding housing units faster than pre-recession. Morton County has the highest current growth rate of all comparable geographies at 3.3%.

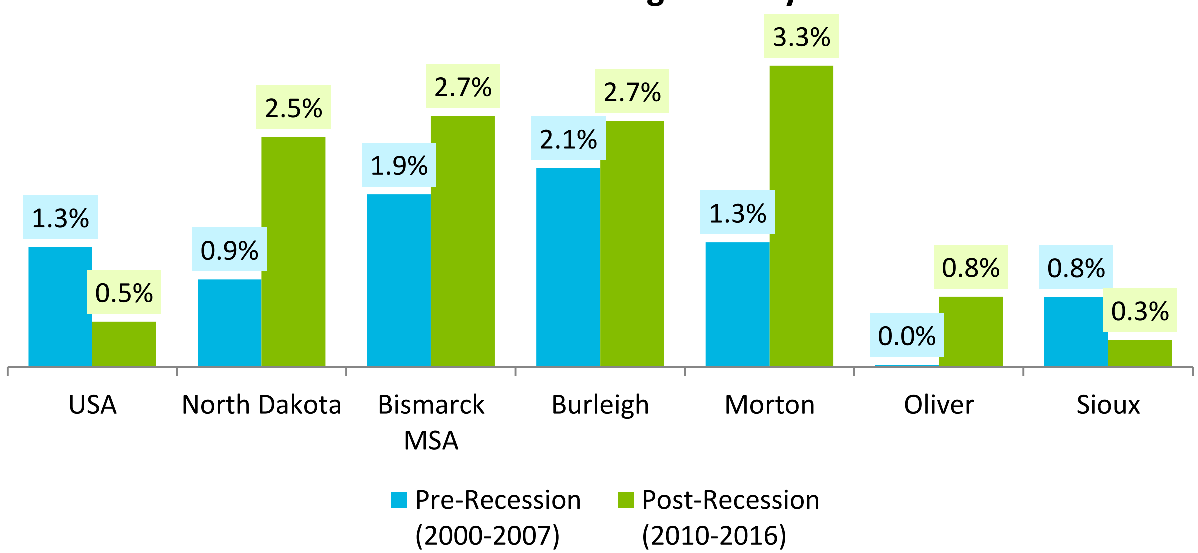
New Residents

	2001-2007		2010-2016
Bismarck MSA	8,722	↑	18,492
North Dakota	10,799	↑	92,984
USA	19,068,796	↓	16,634,406

Housing Permits

	2001-2007		2010-2016
Bismarck MSA	6,125	↑	9,258
North Dakota	24,651	↑	52,887
USA	12,773,313	↓	6,500,505

Growth in Total Housing Units by Period



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Source: U.S. Department of Housing and Urban Development

Housing Replacement Rate

- This graph seeks to capture the degree to which the Bismarck MSA is replacing its housing, taking into consideration both population growth and the aging and deterioration of its housing stock. Using permitting data and Census population estimates, it shows how many units are permitted (and presumably built) each year per 1,000 people.

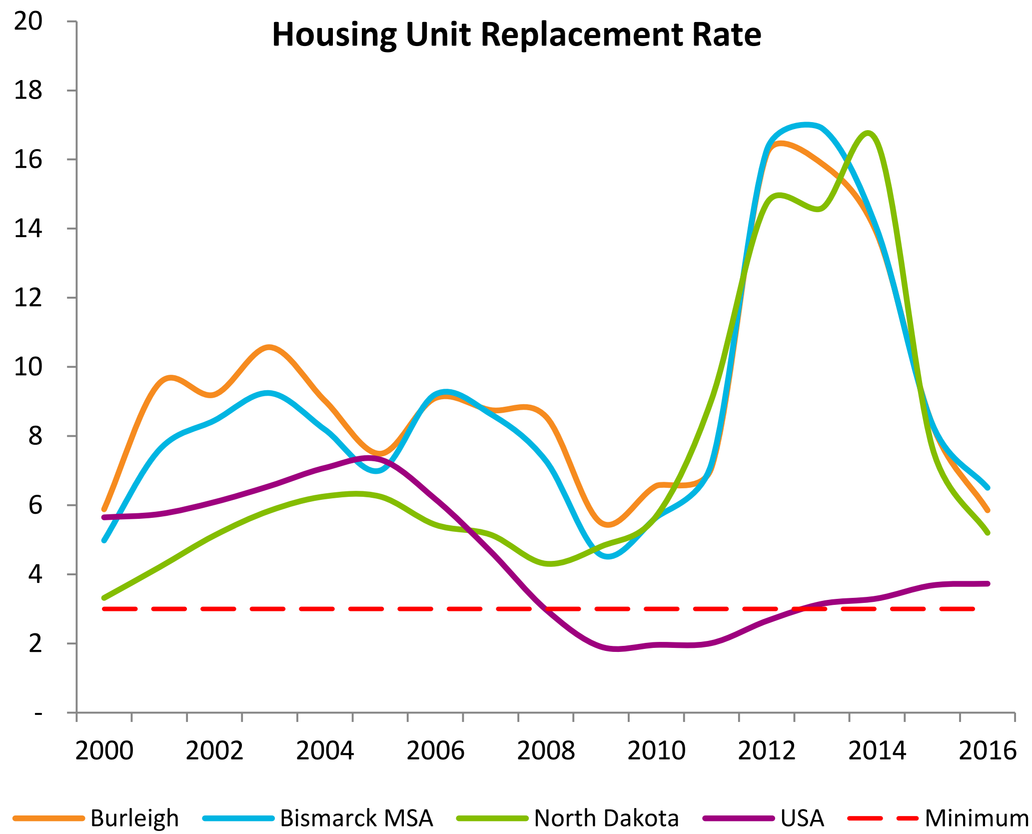
- Methodology espoused by urban researchers argues for a minimum of 3.0 housing units per 1,000 people delivered annually to replace aging housing stock.

- The data indicates that Bismarck and North Dakota delivered well above this rate regularly throughout the last decade, with a considerable spike between 2012 and 2014.

- Comparing Bismarck with the North Dakota housing replacement rate, we can see that Bismarck has delivered above the state average.

- On average, over the period from 2000 to 2016, Bismarck has replaced its housing at a rate of 8.8 units per thousand population, while North Dakota replaced at just 7.3 units per thousand population.

- The U.S. average replacement rate is considerably lower at 4.3 units per thousand population.

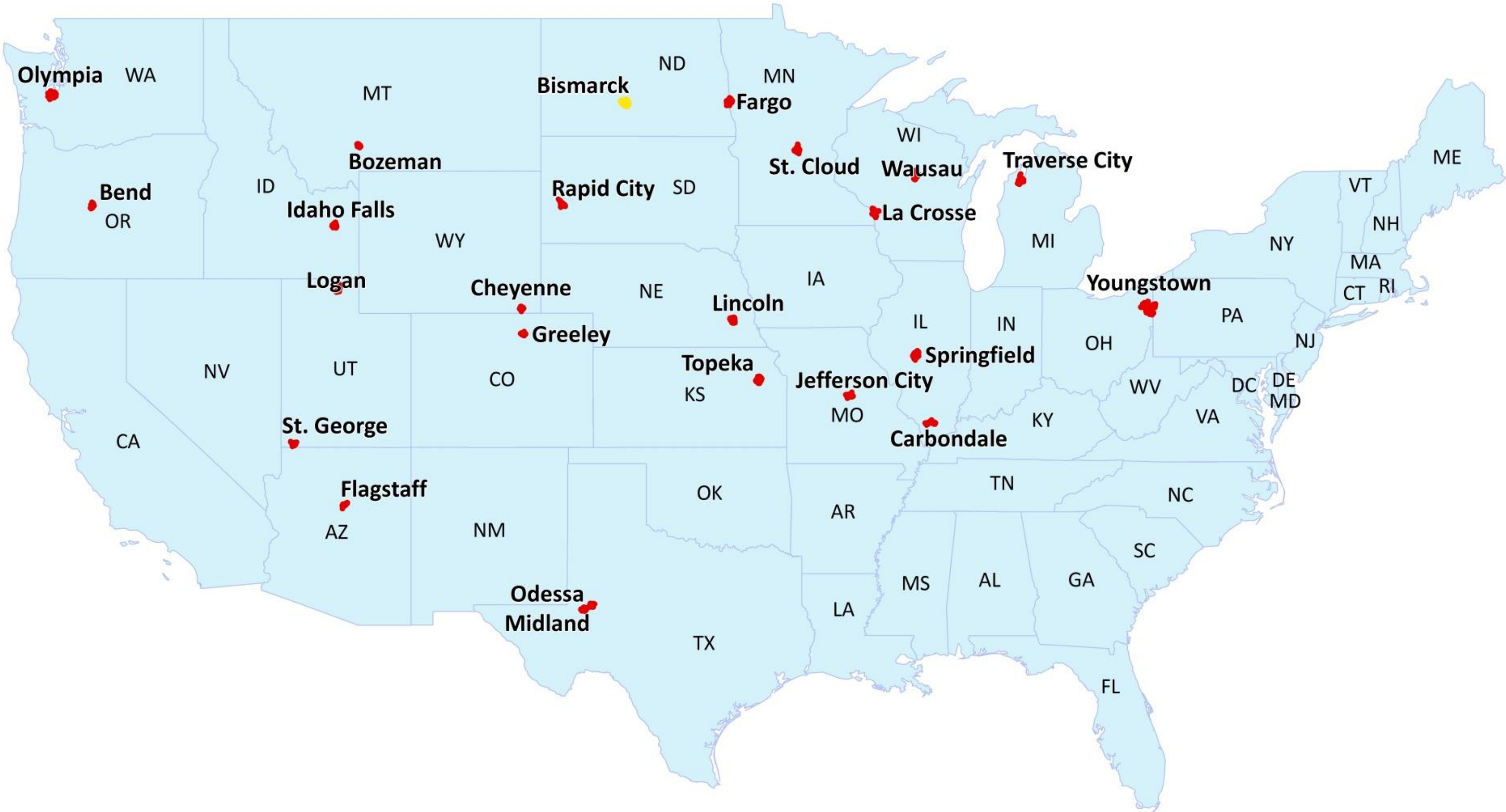


Source: U.S. Department of Housing and Urban Development

Comparable Metros

Comparable Metro Geographies

– The map below identifies various metro geographies deemed 'comparable' to Bismarck based on population size and short term growth trends. The following tables serve as benchmarks for Bismarck's economic growth trajectory relative to its peers.



Source: U.S. Census Bureau, Bureau of Labor Statistics

Population Totals

Metro	2000	2007	2010	2016
Cheyenne, WY	81,825	87,654	92,272	98,136
Bozeman, MT	68,375	86,620	89,631	104,502
Carbondale, IL	120,912	124,719	126,819	126,430
Bismarck, ND	101,020	109,742	115,277	131,635
Wausau, WI	125,995	131,773	134,066	135,603
Logan, UT	103,211	115,901	126,160	136,159
La Crosse, WI	127,021	131,190	133,885	136,936
Rapid City, SD	113,124	120,890	126,792	137,065
Idaho Falls, ID	102,161	121,365	130,908	140,071
Flagstaff, AZ	116,773	130,442	134,624	140,908
Traverse City, MI	131,991	142,791	143,348	148,684
Jefferson City, MO	140,285	146,455	149,953	151,391
Odessa, TX	120,694	130,459	137,083	157,462
St. George, UT	91,206	132,277	138,443	160,245
Midland, TX	115,560	128,954	136,976	162,565
Bend, OR	116,566	152,633	157,839	181,307
St. Cloud, MN	168,139	184,598	189,218	195,644
Springfield, IL	201,628	206,771	210,507	210,015
Topeka, KS	224,859	230,025	234,280	233,068
Fargo, ND	174,970	197,121	209,416	238,124
Olympia, WA	208,287	237,772	253,062	275,222
Greeley, CO	182,782	237,692	254,164	294,932
Lincoln, NE	268,042	292,502	302,993	326,921
Youngstown, OH	602,227	575,543	564,881	544,746
USA	282,162,411	301,231,207	309,338,421	323,405,935

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Population Analysis

Metro	Pre-Recession Growth (2000-2007)	Post-Recession Growth (2010-2016) ↓
Midland, TX	1.58%	2.90%
Bozeman, MT	3.44%	2.59%
Greeley, CO	3.82%	2.51%
St. George, UT	5.45%	2.47%
Bend, OR	3.93%	2.34%
Odessa, TX	1.12%	2.34%
Bismarck, ND	1.19%	2.24%
Fargo, ND	1.72%	2.16%
Olympia, WA	1.91%	1.41%
Rapid City, SD	0.95%	1.31%
Logan, UT	1.67%	1.28%
Lincoln, NE	1.26%	1.27%
Idaho Falls, ID	2.49%	1.13%
Cheyenne, WY	0.99%	1.03%
Flagstaff, AZ	1.59%	0.76%
USA	0.94%	0.74%
Traverse City, MI	1.13%	0.61%
St. Cloud, MN	1.34%	0.56%
La Crosse, WI	0.46%	0.38%
Wausau, WI	0.64%	0.19%
Jefferson City, MO	0.62%	0.16%
Springfield, IL	0.36%	-0.04%
Carbondale, IL	0.44%	-0.05%
Topeka, KS	0.33%	-0.09%
Youngstown, OH	-0.65%	-0.60%

AECOM

Population Analysis

Metro	2000 State Market Share	2016 State Market Share	Change in Market Share (2000-2016) ↓
Fargo, ND	27.3%	31.4%	4.2%
Bozeman, MT	7.6%	10.0%	2.5%
Bismarck, ND	15.7%	17.4%	1.6%
Lincoln, NE	15.6%	17.1%	1.5%
St. George, UT	4.1%	5.3%	1.2%
Greeley, CO	4.2%	5.3%	1.1%
Bend, OR	3.4%	4.4%	1.0%
Rapid City, SD	15.0%	15.8%	0.9%
Idaho Falls, ID	7.9%	8.3%	0.5%
Olympia, WA	3.5%	3.8%	0.3%
Cheyenne, WY	16.6%	16.8%	0.2%
Traverse City, MI	1.3%	1.5%	0.2%
St. Cloud, MN	3.4%	3.5%	0.1%
Midland, TX	0.6%	0.6%	0.0%
Springfield, IL	1.6%	1.6%	0.0%
Carbondale, IL	1.0%	1.0%	0.0%
La Crosse, WI	2.4%	2.4%	0.0%
Wausau, WI	2.3%	2.3%	0.0%
Odessa, TX	0.6%	0.6%	0.0%
Jefferson City, MO	2.5%	2.5%	0.0%
Logan, UT	4.6%	4.5%	-0.1%
Flagstaff, AZ	2.3%	2.0%	-0.2%
Topeka, KS	8.3%	8.0%	-0.3%
Youngstown, OH	5.3%	4.7%	-0.6%

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Employment Totals

Metro	2000	2007	2010	2016 ↑
Cheyenne, WY	38,689	40,350	43,092	46,869
Carbondale, IL	57,791	65,670	56,774	57,222
Bozeman, MT	39,902	49,082	47,316	60,662
Idaho Falls, ID	48,655	60,013	57,397	62,819
St. George, UT	37,977	61,762	50,821	64,981
Logan, UT	51,923	65,112	59,635	65,927
Rapid City, SD	59,721	65,008	62,528	66,153
Bismarck, ND	54,891	62,793	62,040	68,031
Flagstaff, AZ	59,882	68,093	65,650	69,890
Odessa, TX	53,610	64,372	62,525	70,931
Wausau, WI	69,355	72,651	66,691	71,220
Traverse City, MI	71,310	72,821	65,940	72,996
Jefferson City, MO	73,915	74,473	72,141	73,764
La Crosse, WI	69,614	72,325	71,236	75,211
Midland, TX	55,862	69,256	67,155	80,872
Bend, OR	58,778	77,625	69,995	85,535
St. Cloud, MN	95,808	101,218	98,757	105,275
Springfield, IL	109,591	109,889	106,917	107,547
Topeka, KS	115,836	114,411	115,503	115,447
Olympia, WA	102,916	121,724	115,550	123,049
Fargo, ND	100,925	115,647	117,689	132,597
Greeley, CO	90,983	112,271	119,796	144,230
Lincoln, NE	153,754	161,620	164,130	172,734
Youngstown, OH	269,681	261,842	236,751	233,147
USA	136,879,200	146,042,015	139,038,712	151,426,872

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Employment Analysis

Metro	Pre-Recession Growth (2000-2007)	Post-Recession Growth (2010-2016) ↓
Bozeman, MT	3.00%	4.23%
St. George, UT	7.19%	4.18%
Bend, OR	4.05%	3.40%
Midland, TX	3.12%	3.15%
Greeley, CO	3.05%	3.14%
Odessa, TX	2.65%	2.12%
Fargo, ND	1.96%	2.01%
Traverse City, MI	0.30%	1.71%
Logan, UT	3.29%	1.69%
Bismarck, ND	1.94%	1.55%
Idaho Falls, ID	3.04%	1.52%
USA	0.93%	1.43%
Cheyenne, WY	0.60%	1.41%
Wausau, WI	0.67%	1.10%
St. Cloud, MN	0.79%	1.07%
Olympia, WA	2.43%	1.05%
Flagstaff, AZ	1.85%	1.05%
Rapid City, SD	1.22%	0.94%
La Crosse, WI	0.55%	0.91%
Lincoln, NE	0.72%	0.86%
Jefferson City, MO	0.11%	0.37%
Carbondale, IL	1.84%	0.13%
Springfield, IL	0.04%	0.10%
Topeka, KS	-0.18%	-0.01%
Youngstown, OH	-0.42%	-0.26%

Employment Analysis

Metro	2000 State Market Share	2016 State Market Share	Change in Market Share (2000-2016) ↓
Bozeman, MT	9.0%	12.1%	3.1%
Fargo, ND	30.4%	33.0%	2.6%
Cheyenne, WY	15.1%	16.4%	1.4%
Greeley, CO	4.0%	5.2%	1.2%
St. George, UT	3.4%	4.5%	1.0%
Bend, OR	3.4%	4.4%	1.0%
Lincoln, NE	16.7%	17.7%	0.9%
Bismarck, ND	16.5%	16.9%	0.4%
Idaho Falls, ID	7.7%	8.0%	0.3%
Traverse City, MI	1.4%	1.6%	0.2%
Rapid City, SD	15.0%	15.1%	0.1%
St. Cloud, MN	3.5%	3.6%	0.1%
La Crosse, WI	2.4%	2.5%	0.1%
Midland, TX	0.6%	0.6%	0.1%
Olympia, WA	3.5%	3.6%	0.0%
Odessa, TX	0.5%	0.6%	0.0%
Carbondale, IL	0.9%	0.9%	0.0%
Springfield, IL	1.8%	1.7%	0.0%
Wausau, WI	2.4%	2.4%	0.0%
Jefferson City, MO	2.6%	2.5%	-0.1%
Logan, UT	4.7%	4.5%	-0.2%
Flagstaff, AZ	2.5%	2.3%	-0.2%
Topeka, KS	8.5%	8.1%	-0.4%
Youngstown, OH	4.9%	4.3%	-0.6%

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Unemployment Rates

Metro	2000	2007	2010	2016
Fargo, ND	2.4%	2.8%	4.1%	2.6%
Bozeman, MT	3.7%	2.6%	6.8%	2.8%
Bismarck, ND	2.6%	2.9%	3.9%	2.9%
Lincoln, NE	2.4%	2.8%	4.2%	2.9%
Rapid City, SD	2.3%	2.7%	5.2%	2.9%
Logan, UT	2.8%	2.1%	6.0%	3.1%
Idaho Falls, ID	3.5%	2.3%	7.0%	3.2%
Greeley, CO	2.7%	4.1%	9.2%	3.4%
Wausau, WI	3.4%	4.4%	9.3%	3.7%
St. George, UT	3.5%	2.7%	10.5%	3.7%
Jefferson City, MO	3.0%	4.2%	7.4%	3.8%
La Crosse, WI	3.4%	4.1%	6.8%	3.8%
St. Cloud, MN	3.2%	4.7%	7.5%	3.9%
Topeka, KS	3.9%	4.8%	7.1%	4.1%
Cheyenne, WY	3.8%	3.5%	6.7%	4.1%
Midland, TX	4.1%	2.8%	5.9%	4.4%
Traverse City, MI	3.7%	6.8%	12.1%	4.8%
Springfield, IL	3.4%	4.4%	7.7%	4.9%
USA	4.0%	4.6%	9.6%	4.9%
Bend, OR	5.3%	5.0%	13.8%	4.9%
Olympia, WA	5.1%	4.9%	9.0%	5.8%
Carbondale, IL	4.9%	5.5%	9.0%	5.8%
Flagstaff, AZ	4.4%	3.7%	9.9%	5.9%
Youngstown, OH	5.2%	6.1%	11.8%	6.4%
Odessa, TX	5.3%	3.3%	8.3%	6.4%

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Household Totals

Metro	2000	2007	2010	2016
Cheyenne, WY	31,927	35,784	37,576	40,518
Logan, UT	31,019	36,281	38,801	42,608
Bozeman, MT	26,323	33,122	36,550	43,658
Idaho Falls, ID	34,654	41,462	44,775	47,895
Flagstaff, AZ	40,448	44,737	46,711	48,854
Carbondale, IL	49,573	51,920	52,959	53,674
Wausau, WI	47,702	51,471	53,176	54,736
St. George, UT	29,939	40,644	46,334	55,921
La Crosse, WI	49,232	52,514	53,986	56,025
Bismarck, ND	39,445	44,701	47,179	56,642
Rapid City, SD	43,446	48,708	51,154	57,151
Odessa, TX	43,846	47,182	48,688	58,173
Jefferson City, MO	51,637	55,277	56,915	58,361
Midland, TX	42,745	48,266	50,845	61,521
Traverse City, MI	51,760	56,622	58,843	62,034
Bend, OR	45,595	57,867	64,090	73,965
St. Cloud, MN	60,669	67,936	71,311	75,501
Springfield, IL	83,595	86,742	88,126	89,303
Topeka, KS	89,600	92,991	94,483	94,966
Fargo, ND	69,985	80,962	86,178	101,752
Greeley, CO	63,197	80,533	89,349	104,661
Olympia, WA	81,625	94,518	100,650	108,672
Lincoln, NE	105,200	115,111	119,639	130,776
Youngstown, OH	238,319	233,288	231,165	225,596
USA	105,480,101	113,225,227	116,716,292	123,158,887

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Household Analysis

Metro	Pre-Recession Growth (2000-2007)	Post-Recession Growth (2010-2016)
Midland, TX	1.75%	3.23%
St. George, UT	4.46%	3.18%
Bismarck, ND	1.80%	3.09%
Odessa, TX	1.05%	3.01%
Bozeman, MT	3.34%	3.01%
Fargo, ND	2.10%	2.81%
Greeley, CO	3.52%	2.67%
Bend, OR	3.46%	2.42%
Rapid City, SD	1.65%	1.86%
Logan, UT	2.26%	1.57%
Lincoln, NE	1.29%	1.49%
Olympia, WA	2.12%	1.29%
Cheyenne, WY	1.64%	1.26%
Idaho Falls, ID	2.60%	1.13%
St. Cloud, MN	1.63%	0.96%
USA	1.02%	0.90%
Traverse City, MI	1.29%	0.88%
Flagstaff, AZ	1.45%	0.75%
La Crosse, WI	0.93%	0.62%
Wausau, WI	1.09%	0.48%
Jefferson City, MO	0.98%	0.42%
Carbondale, IL	0.66%	0.22%
Springfield, IL	0.53%	0.22%
Topeka, KS	0.53%	0.09%
Youngstown, OH	-0.30%	-0.41%

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Household Analysis

Metro	2000 State Market Share	2016 State Market Share	Change in Market Share (2000-2016)
Fargo, ND	27.2%	30.6%	3.4%
Bozeman, MT	7.3%	10.0%	2.6%
Bismarck, ND	15.3%	17.0%	1.7%
St. George, UT	4.3%	5.7%	1.5%
Rapid City, SD	15.0%	16.3%	1.4%
Lincoln, NE	15.8%	17.1%	1.3%
Bend, OR	3.4%	4.6%	1.1%
Greeley, CO	3.8%	4.8%	1.0%
Cheyenne, WY	16.5%	16.9%	0.4%
Olympia, WA	3.6%	3.8%	0.3%
Idaho Falls, ID	7.4%	7.6%	0.2%
St. Cloud, MN	3.2%	3.4%	0.2%
Traverse City, MI	1.4%	1.6%	0.2%
Wausau, WI	2.3%	2.3%	0.0%
Midland, TX	0.6%	0.6%	0.0%
Jefferson City, MO	2.4%	2.4%	0.0%
La Crosse, WI	2.4%	2.4%	0.0%
Carbondale, IL	1.1%	1.1%	0.0%
Springfield, IL	1.8%	1.8%	0.0%
Odessa, TX	0.6%	0.6%	0.0%
Logan, UT	4.4%	4.4%	-0.1%
Flagstaff, AZ	2.1%	1.9%	-0.2%
Topeka, KS	8.6%	8.3%	-0.4%
Youngstown, OH	5.4%	4.8%	-0.6%

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Comparable Interstate Analysis

AECOM Economics

May 2018

Methodology

- Review the market analysis and the potential alignment alternatives' expectations under future conditions to determine two future market scenarios: the "Opportunity Scenario" which includes future construction of an alignment alternative and the "Base Scenario" which maintains US Highway 83 along its current alignment.

- Identify comparable US locations where a bypass route has been completed since 2000. For each case study, data is collected regarding changes in commercial real estate development, households and growth in annual average daily traffic (AADT) for the new bypass route.

- The model assumes that economic development during the first ten years after the new corridor construction is complete (from 2030 to 2040) will initially span a three mile radius for commercial, industrial and residential development.

- Case study benchmarks are used to estimate economic impacts associated with anticipated changes in traffic levels for the base and opportunity scenarios. Impacts are aggregated over a multi-year period, and cover changes in employment, population, households and commercial real estate.

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Comparable Corridors

Name	Metro	State	Designation	Length	Construction Timeline
Delaware Route 1	Wilmington	Delaware	Rural Fringe	13.1 miles	1999-2003
I-355 South	Chicago	Illinois	Suburban Infill	12.5 miles	2004-2007
Des Moines Beltway	Des Moines	Iowa	Suburban Edge	24 miles	1994-2003
Wilson-Goldsboro	Rocky Mount	North Carolina	Rural Fringe	25.4 miles	2001-2007
I-210 Glendora	Los Angeles	California	Suburban Infill	20 miles	1990-2003
I-485 Charlotte	Charlotte	North Carolina	Rural Fringe	12.5 miles	1990-2003
Eagle Way Bypass	Hopkinsville	Kentucky	Rural Fringe	13.5 miles	1999-2001
Southern Connector	Greenville	South Carolina	Rural Fringe	14 miles	1997-2001

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Source: Department of Transportation

Summary of Findings

- The final case study analysis indicates that the completion of an alternative alignment within suburban and rural fringe locations promotes economic development within the first three miles of the corridor over a ten year period.

- On average, the rate of population and household growth within the three mile impact area was 2%, whereas the larger MSA grew at an average of 1%. Currently, the proposed Bismarck alignment is growing at 5% compared to the Bismarck metro at 2%.

- In most cases, the corridors experienced annualized growth in residents, jobs and commercial real estate over the ten year period after completion. In some cases, growth within the MSA outpaced the corridor, therefore reducing the overall market share of the corridor. These outliers were included in the final forecast.

- The following slides summarize historical demographic and commercial real estate data collected for each of the eight case studies.

Annual Average Daily Traffic Counts

Name	Opening Year	Current Year	CAGR
Delaware Route 1	64,000	93,000	2.7%
I-355 South	118,000	136,000	1.4%
Des Moines Beltway	23,800	32,700	2.3%
Wilson-Goldsboro	23,000	34,000	4.0%
I-210 Glendora	239,000	257,000	0.5%
I-485 Charlotte	38,000	81,000	5.6%
Eagle Way Bypass	21,000	30,500	2.4%
Southern Connector	16,300	22,600	2.1%
Median	30,900	57,500	2.3%

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Source: Department of Transportation

Population

	Population CAGR 2000-2017		Market Share		
Name	3 Mile Corridor	MSA	2000	2017	Actual Change 2000-2017
Delaware Route 1	4.8%	0.7%	5.3%	10.3%	5.0%
I-355 South	0.8%	0.2%	2.2%	2.4%	0.2%
Des Moines Beltway	1.8%	1.8%	19.4%	19.5%	0.0%
Wilson-Goldsboro	0.7%	0.5%	15.8%	16.3%	0.5%
I-210 Glendora	1.3%	0.9%	2.7%	2.9%	0.2%
I-485 Charlotte	4.0%	2.2%	4.9%	6.7%	1.7%
Eagle Way Bypass	0.5%	1.6%	13.8%	11.3%	-2.5%
Southern Connector	1.9%	1.3%	12.0%	13.5%	1.5%
Average	2.0%	1.1%	9.5%	10.4%	0.8%
US 83 Proposed	5.1%	1.9%	2.8%	4.7%	1.9%

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Source: ESRI Business Analyst

Households

	Household CAGR 2000-2017		Market Share		
Name	3 Mile Corridor	MSA	2000	2017	Actual Change 2000-2017
Delaware Route 1	4.4%	0.7%	4.8%	8.8%	4.0%
I-355 South	1.0%	0.3%	2.1%	2.3%	0.2%
Des Moines Beltway	1.8%	1.7%	19.0%	19.1%	0.1%
Wilson-Goldsboro	0.9%	0.7%	16.0%	16.7%	0.6%
I-210 Glendora	1.2%	0.8%	2.7%	2.9%	0.2%
I-485 Charlotte	4.2%	2.1%	4.5%	6.3%	1.8%
Eagle Way Bypass	0.5%	1.8%	15.4%	12.5%	-2.9%
Southern Connector	1.9%	1.2%	11.9%	13.3%	1.4%
Average	**2.0%**	**1.2%**	**9.6%**	**10.2%**	**0.7%**
US 83 Proposed	5.2%	2.2%	2.3%	3.8%	1.4%

AECOM

Source: ESRI Business Analyst

Employment

	Employment CAGR 2000-2017		Market Share		
Name	3 Mile Corridor	MSA	2000	2017	Actual Change 2000-2017
Delaware Route 1	4.3%	0.8%	2.9%	5.3%	2.4%
I-355 South	3.0%	0.7%	1.3%	2.0%	0.6%
Des Moines Beltway	2.8%	1.6%	9.9%	12.0%	2.1%
Wilson-Goldsboro	0.0%	-0.5%	24.8%	27.2%	2.3%
I-210 Glendora	1.7%	1.3%	2.3%	2.4%	0.2%
I-485 Charlotte	4.5%	2.0%	2.9%	4.4%	1.5%
Eagle Way Bypass	0.3%	1.7%	26.0%	20.5%	-5.4%
Southern Connector	-0.4%	1.1%	16.4%	12.6%	-3.8%
Median	2.3%	1.2%	6.4%	8.6%	1.1%
US 83 Proposed	20.3%	2.8%	0.1%	1.7%	1.6%

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Source: U.S. Census Bureau OnTheMap

Employment by Sector

	Industrial		Office		Retail	
Name	2017 Market Share	% Change from 2000	2017 Market Share	% Change from 2000	2017 Market Share	% Change from 2000
Delaware Route 1	5.0%	+ 2.0%	4.8%	+ 2.1%	7.7%	+ 4.2%
I-355 South	2.7%	+ 1.3%	1.6%	+ 0.5%	2.2%	+ 0.4%
Des Moines Beltway	16.0%	+ 3.3%	7.8%	+ 0.6%	20.5%	+ 5.9%
Wilson-Goldsboro	25.3%	+ 3.2%	29.6%	+ 1.4%	25.0%	+ 2.3%
I-210 Glendora	2.4%	+ 0.2%	2.3%	+ 0.1%	3.0%	+ 0.5%
I-485 Charlotte	1.8%	+ 0.6%	5.0%	+ 1.8%	5.9%	+ 0.1%
Eagle Way Bypass	25.1%	- 12.9%	21.0%	+ 1.5%	15.5%	- 6.8%
Southern Connector	22.7%	+ 5.8%	9.7%	- 9.0%	6.8%	- 3.1%
Median	10.5%	+ 1.6%	6.4%	1.0%	7.3%	0.5%
US 83 Proposed	4.2%	3.8%	1.6%	1.5%	0.0%	0.0%

AECOM

Source: U.S. Census Bureau OnTheMap

Commercial Real Estate

Share of total MSA square footage built within the new corridor from 2007 to 2017:

	Industrial	Office	Retail	Total
Delaware Route 1	2%	23%	15%	12%
I-355 South	8%	3%	5%	7%
Des Moines Beltway	41%	7%	16%	27%
Wilson-Goldsboro	77%	26%	36%	46%
I-210 Glendora	3%	2%	4%	3%
I-485 Charlotte	1%	2%	4%	2%
Eagle Way Bypass	5%	5%	15%	8%
Southern Connector	20%	15%	10%	16%
Median	7%	6%	13%	10%
US 83 Proposed	10%	0%	0%	3%

AECOM

Source: CoStar

Base + Opportunity Scenarios: 2015-2040

The base scenario utilizes existing projections from the Bismarck MPO as a benchmark for expected economic growth between 2015 and 2040 **without consideration of an alternative alignment**.

Base Scenario	+ 3,155 residents	+ 1,008 households	+ 549 jobs	+ 104,900 commercial square feet

The conservative opportunity scenario utilizes the **average change in market share** of comparable interstate case studies as a benchmark for calculating the additional growth captured by an alternative alignment.

Conservative Opportunity Scenario	+ 3,386 residents	+ 1,056 households	+ 730 jobs	+ 139,400 commercial square feet

The aggressive opportunity scenario utilizes the **average compound annual growth rate** of comparable interstate case studies as a benchmark for calculating the growth captured by an alternative alignment.

Aggressive Opportunity Scenario	+ 3,697 residents	+ 1,145 households	+ 935 jobs	+ 178,400 commercial square feet

AECOM

Source: Bismarck MPO; AECOM

Comparable Interstate Case Studies

Delaware Route 1 North

Length: 13.1 miles

Construction Timeline: 1999-2003

Metro: Wilmington, DE

Designation: Rural Fringe

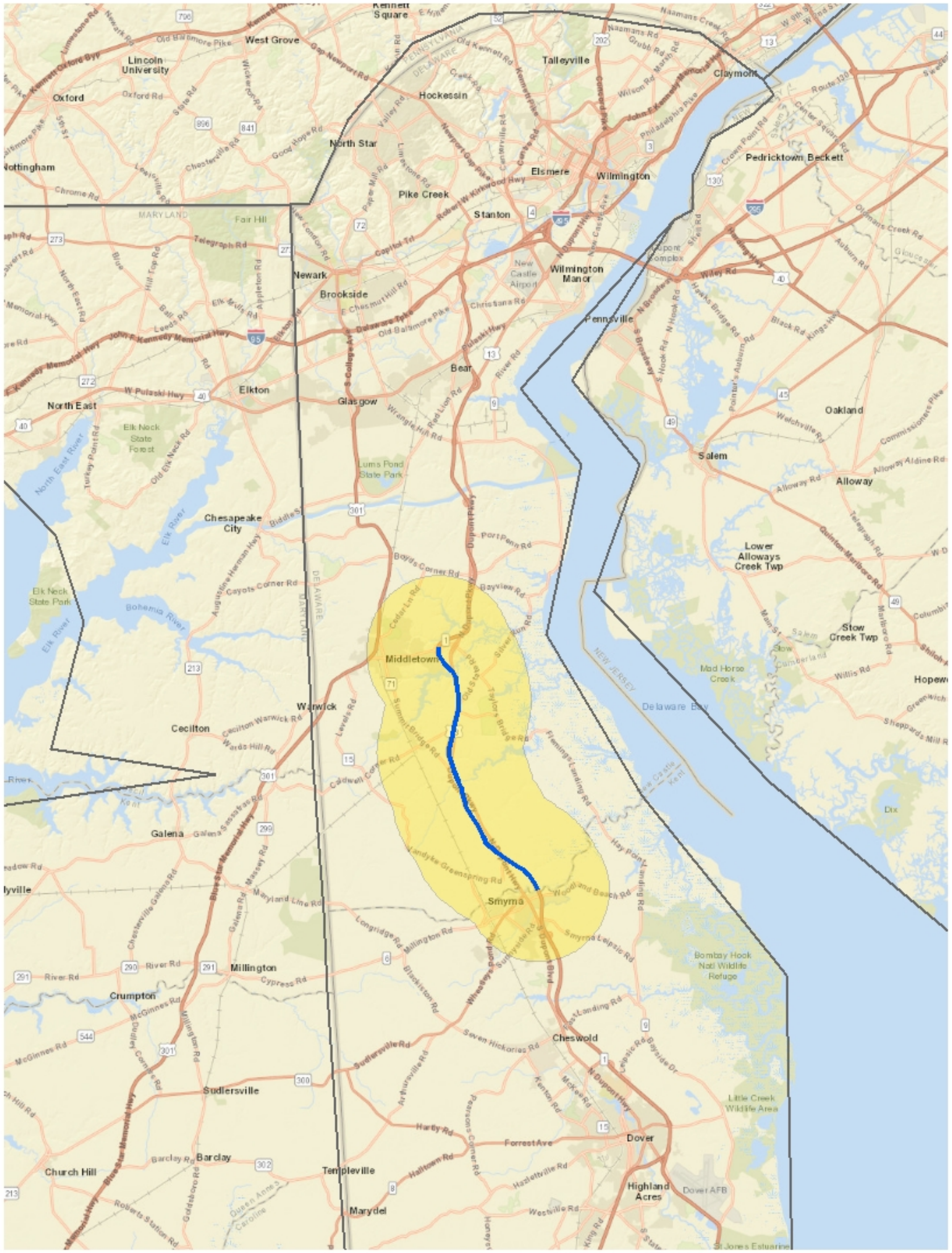
Daily Traffic Count:

- First Year: 64,000
- Current Year: 93,000

Source: Delaware Department of Transportation

Delaware Route 1 North

The final section of the Delaware Route 1 toll road between US 13 north of Smyrna and US 13 south of Odessa.



Delaware Route 1 North

Population

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
DE Route 1 North	26,377	32,319	42,373	58,112	4.76%
Wilmington MSA	500,265	511,435	526,718	566,709	0.74%
Market Share	5.3%	6.3%	8.0%	10.3%	

Population Density

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Total Land Area (sq mi)
DE Route 1 North	160	196	257	352	165
Wilmington MSA	854	873	899	967	586

AECOM

Source: ESRI Business Analyst

Delaware Route 1 North

Households

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
DE Route 1 North	9,005	10,882	14,007	18,701	4.39%
Wilmington MSA	188,935	192,949	198,435	212,205	0.69%
Market Share	4.8%	5.6%	7.1%	8.8%	

Housing Units

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
DE Route 1 North	9,547	11,550	14,888	19,413	4.26%
Wilmington MSA	199,521	204,756	211,950	226,714	0.75%
Market Share	4.8%	5.6%	7.0%	8.6%	

AECOM

Source: ESRI Business Analyst

Delaware Route 1 North

Employment

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
DE Route 1 North	7,811	8,817	10,905	15,986	4.30%
Wilmington MSA	265,775	269,343	287,531	302,233	0.76%
Market Share	2.9%	3.3%	3.8%	5.3%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

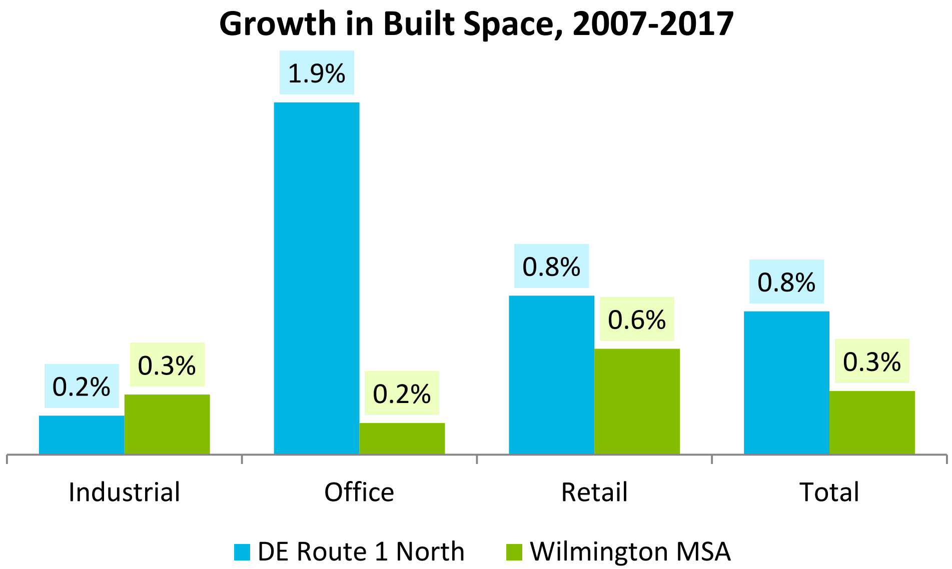
	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term
Industrial	3.0%	4.1%	5.0%	5.0%
Office	2.7%	3.0%	3.4%	4.8%
Retail	3.5%	3.0%	3.7%	7.7%

Source: U.S. Census Bureau OnTheMap

AECOM

Delaware Route 1 North

- Growth in commercial space within the DE Route 1 corridor outpaced the Wilmington metro area between 2007 and 2017.
- Office space along the corridor grew at the fastest rate of all commercial categories.
- The extension delivered 12% of total commercial built space in the Wilmington MSA since 2007.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
DE Route 1 North	41,885	320,413	332,640	694,938
Wilmington MSA	2,364,140	1,368,820	2,229,199	5,962,159
% Total Built Space	**2%**	**23%**	**15%**	**12%**

AECOM

Source: CoStar

I-355 Southern Extension

Length: 12.5 miles

Construction Timeline: 2004-2007

Metro: Chicago, IL

Designation: Suburban Infill

Daily Traffic Count:

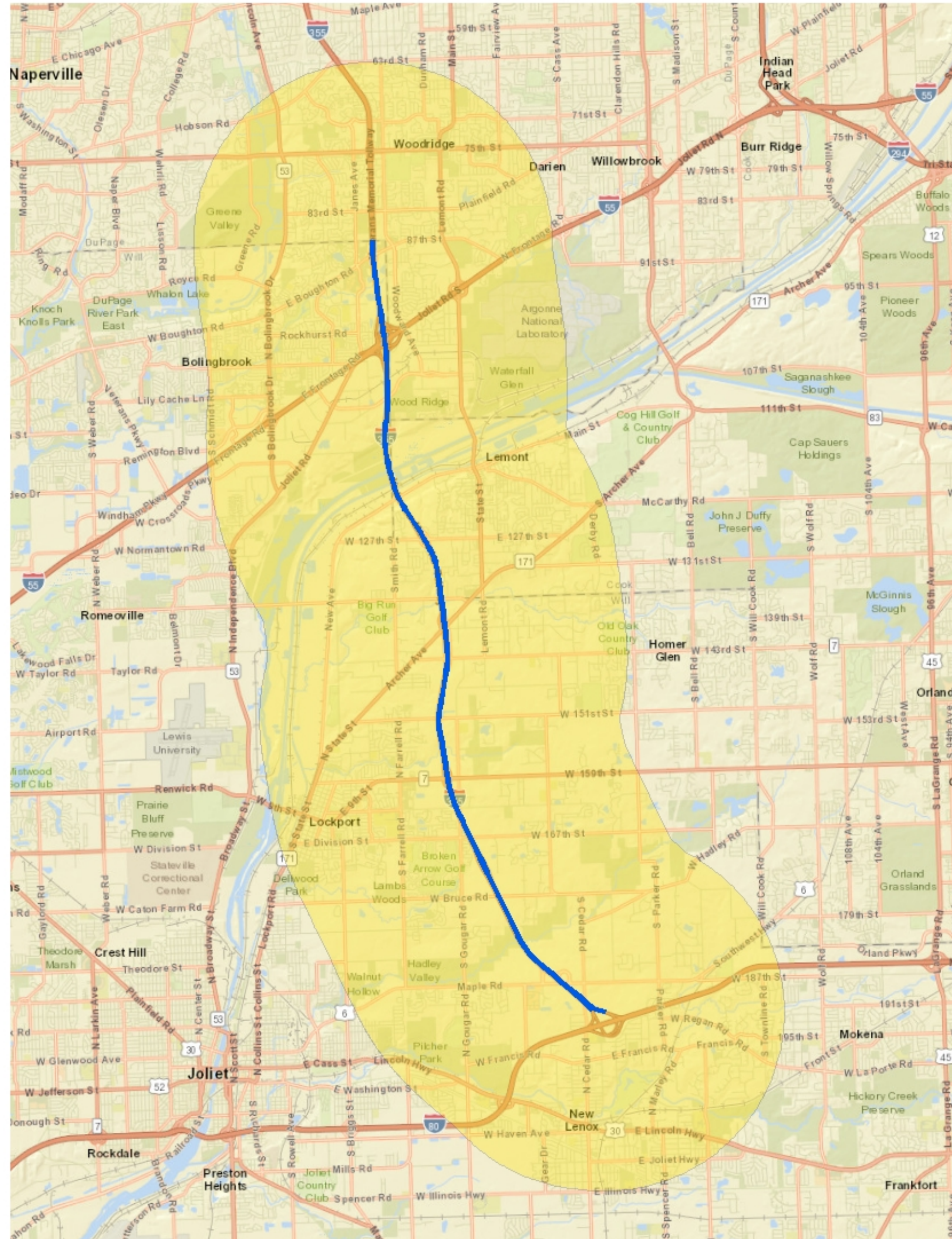
- First Year: 118,000
- Current Year: 136,000

Source: Illinois Department of Transportation

I-355 Southern Extension

Tollway extension in the western and southwestern suburbs of Chicago, from Bolingbrook to Joliet.

Running between I-55 and I-80, the southern extension connects DuPage, Will and Cook Counties.



I-355 Southern Extension

Population

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-355	161,761	174,480	180,233	184,911	0.79%
Chicago MSA	7,427,516	7,473,005	7,492,586	7,660,679	0.18%
Market Share	2.2%	2.3%	2.4%	2.4%	

Population Density

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Total Land Area (sq mi)
I-355	1,426	1,539	1,589	1,631	113
Chicago MSA	1,773	1,784	1,789	1,829	4,189

AECOM

Source: ESRI Business Analyst

I-355 Southern Extension

Households

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-355	55,726	61,305	63,864	65,645	0.97%
Chicago MSA	2,683,617	2,744,104	2,770,442	2,837,409	0.33%
Market Share	2.1%	2.2%	2.3%	2.3%	

Housing Units

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-355	57,319	63,895	66,940	68,675	1.07%
Chicago MSA	2,833,177	2,972,529	3,034,330	3,100,704	0.53%
Market Share	2.0%	2.1%	2.2%	2.2%	

AECOM

Source: ESRI Business Analyst

I-355 Southern Extension

Employment

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-355	46,273	61,404	60,317	76,633	3.01%
Chicago MSA	3,466,201	3,581,105	3,485,427	3,883,595	0.67%
Market Share	1.3%	1.7%	1.7%	2.0%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

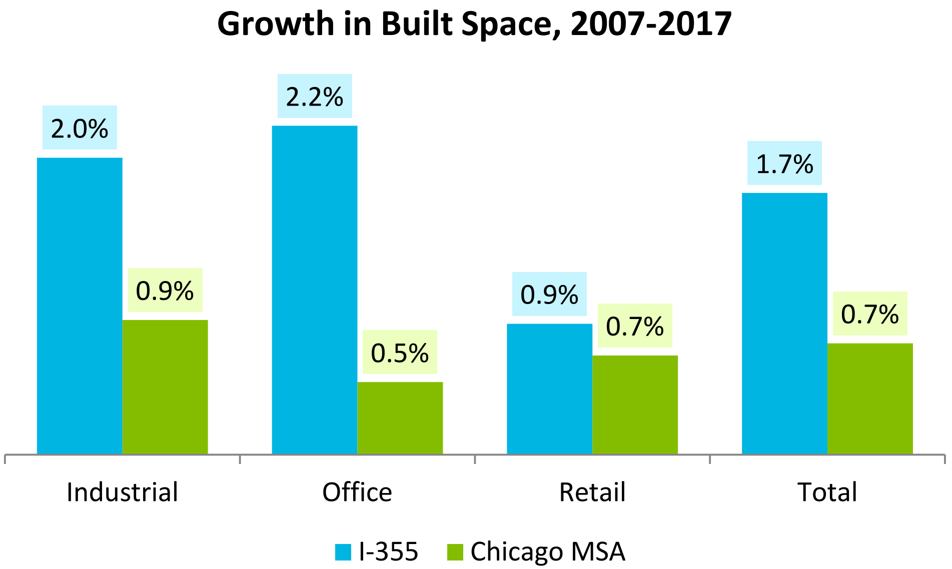
	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term
Industrial	1.4%	2.2%	2.1%	2.7%
Office	1.1%	1.5%	1.5%	1.6%
Retail	1.8%	1.8%	2.1%	2.2%

AECOM

Source: U.S. Census Bureau OnTheMap

I-355 Southern Extension

- Growth in commercial space within the I-355 corridor outpaced the Chicago metro area between 2007 and 2017.
- Office space along the corridor grew at the fastest rate of all commercial categories.
- The extension delivered 7% of total commercial built space in the Chicagoland area since 2007.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
I-355	7,920,687	768,194	1,668,841	10,357,722
Chicago MSA	96,217,922	23,040,330	34,767,873	154,026,125
% Total Built Space	8%	3%	5%	7%

Source: CoStar

Des Moines Beltway

Length: 24 miles

Construction Timeline: 1994-2003

Metro: Des Moines, IA

Designation: Suburban Edge

Daily Traffic Count:

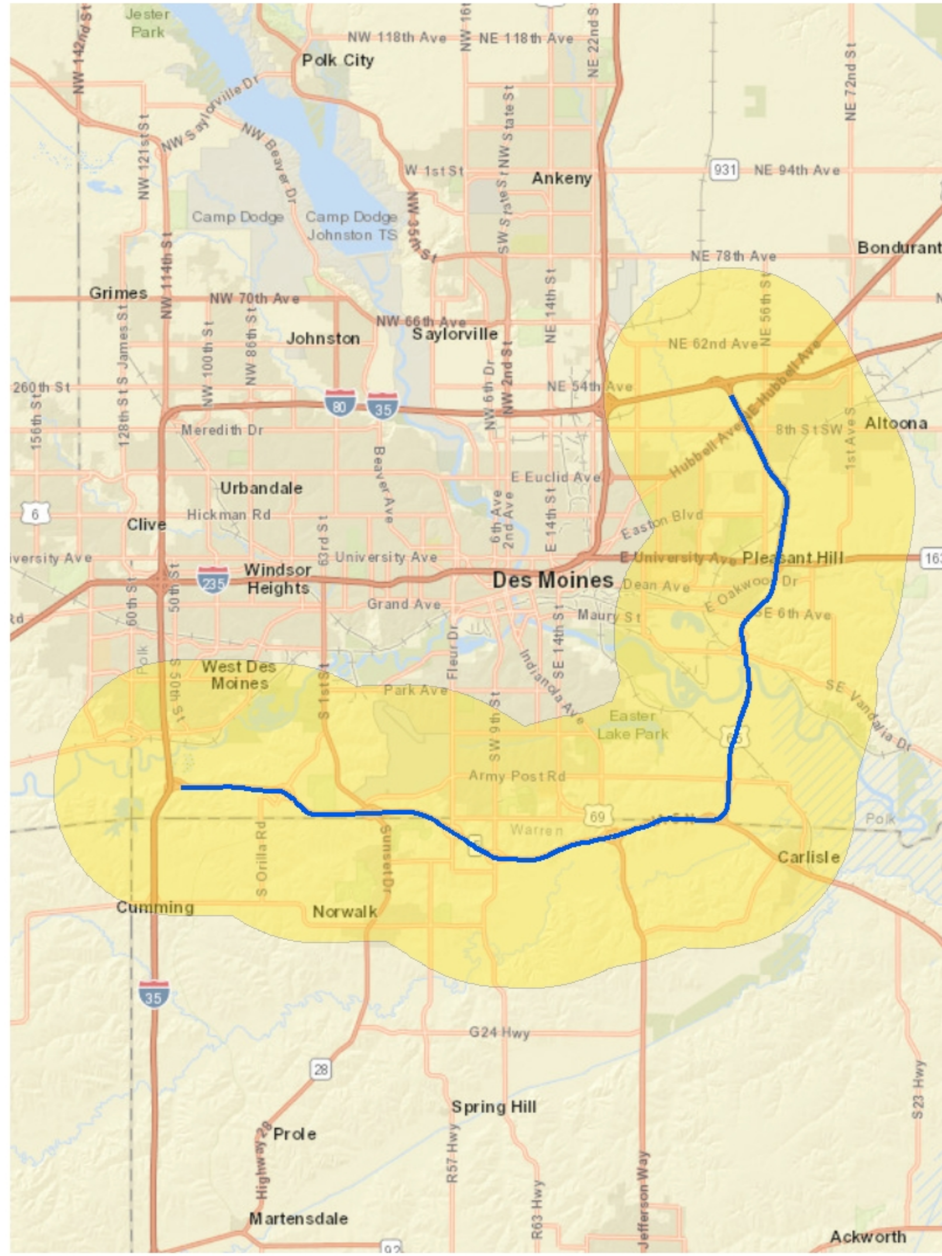
- First Year: 23,800
- Current Year: 32,700

Source: Iowa Department of Transportation

Des Moines US 65/IA 5 Beltway

Runs along southern and eastern sides of the Des Moines metro region.

Together with I-35 and I-80, which bound Des Moines to the west and north, Iowa 5 and US 65 form a beltway around the city.



Des Moines US 65/IA 5 Beltway

Population

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Beltway	93,497	98,827	106,409	126,672	1.80%
Des Moines MSA	481,394	506,325	541,585	651,138	1.79%
Market Share	19.4%	19.5%	19.6%	19.5%	

Population Density

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Total Land Area (sq mi)
Beltway	307	324	349	415	305
Des Moines MSA	165	174	186	224	2,912

AECOM

Source: ESRI Business Analyst

Des Moines US 65/IA 5 Beltway

Households

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Beltway	36,038	38,088	41,005	48,482	1.76%
Des Moines MSA	189,371	198,961	212,507	253,322	1.73%
Market Share	19.0%	19.1%	19.3%	19.1%	

Housing Units

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Beltway	37,594	39,937	43,289	51,345	1.85%
Des Moines MSA	199,393	210,848	227,153	270,851	1.82%
Market Share	18.9%	18.9%	19.1%	19.0%	

AECOM

Source: ESRI Business Analyst

Des Moines US 65/IA 5 Beltway

Employment

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Beltway	27,520	30,664	37,110	43,805	2.77%
Des Moines MSA	277,454	277,834	305,795	365,208	1.63%
Market Share	9.9%	11.0%	12.1%	12.0%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

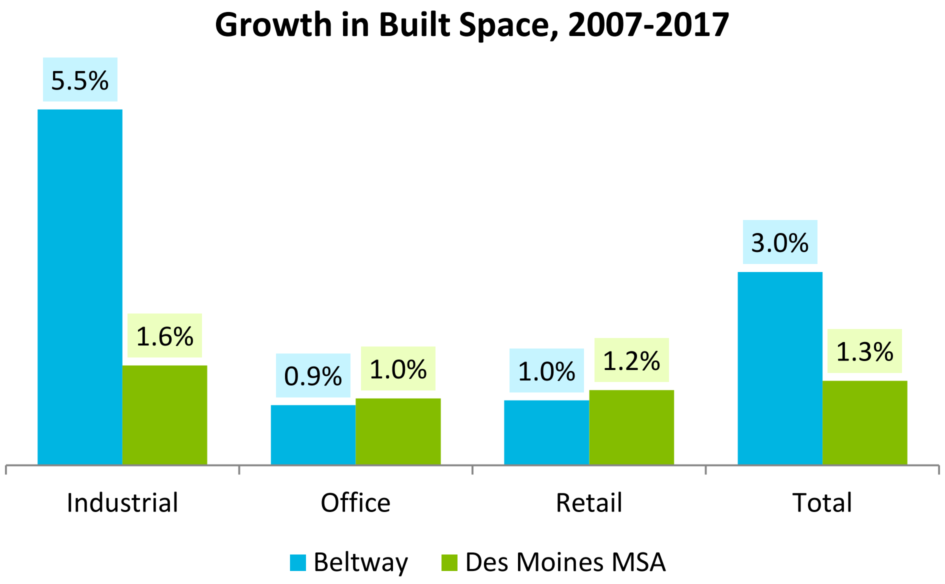
	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term
Industrial	12.6%	14.9%	15.3%	16.0%
Office	7.3%	8.1%	9.4%	7.8%
Retail	14.6%	15.4%	16.9%	20.5%

AECOM

Source: U.S. Census Bureau OnTheMap

Des Moines US 65/IA 5 Beltway

- The Beltway corridor delivered 27% of all new commercial space in Des Moines from 2007 to 2017.
- Industrial space within the Beltway grew at a higher rate than office and retail.
- Overall, the Beltway is adding commercial inventory at a faster rate than the Des Moines metro.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
Beltway	4,159,047	302,348	763,008	5,224,403
Des Moines MSA	10,186,695	4,141,420	4,836,886	19,165,001
% Total Built Space	41%	7%	16%	27%

Source: CoStar

Wilson-Goldsboro Freeway

Length: 25.4 miles

Construction Timeline: 2001-2007

Metro: Rocky Mount-Wilson, NC

Designation: Rural Fringe

Daily Traffic Count:

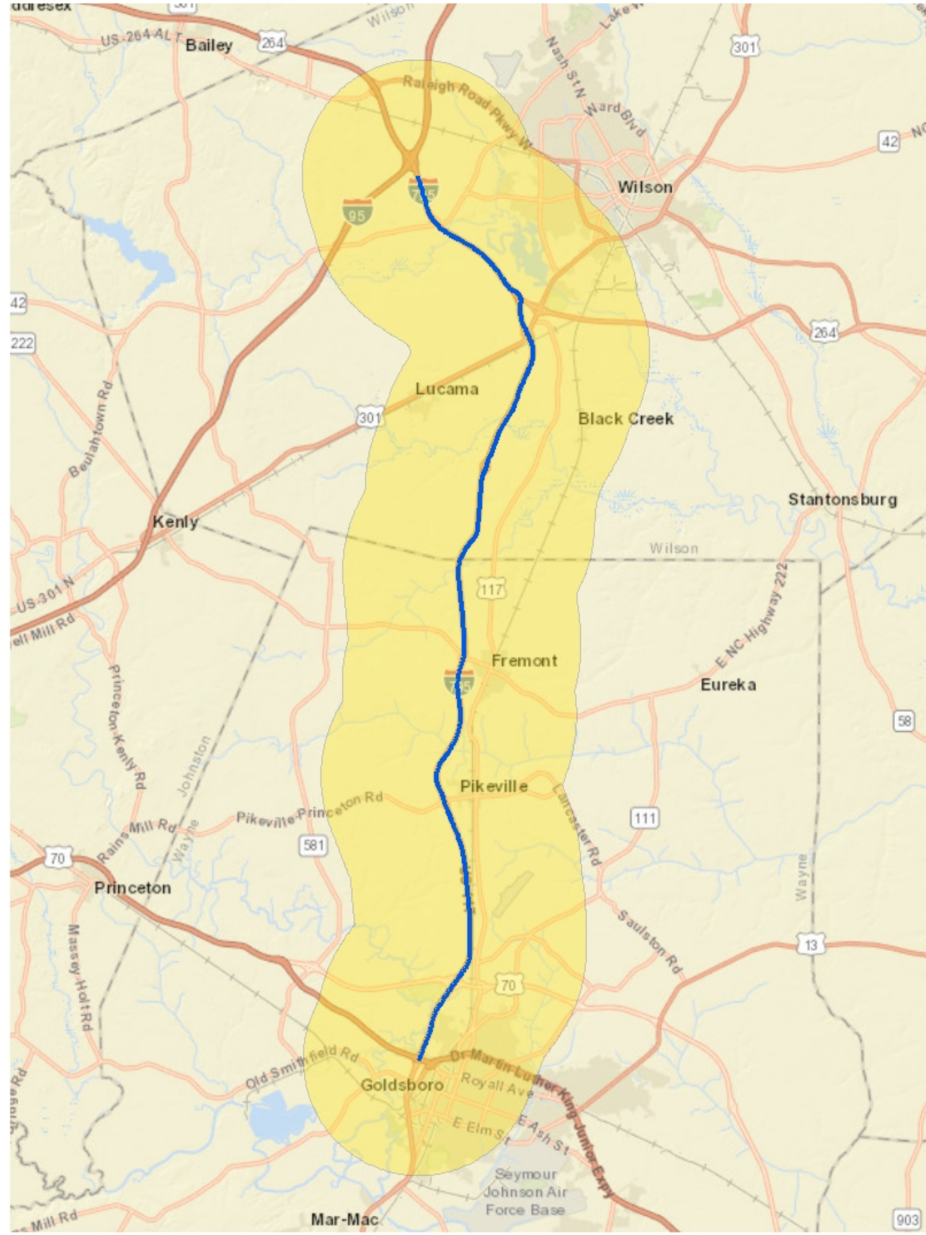
- First Year: 23,000
- Current Year: 34,000

Source: North Carolina Department of Transportation

I-795 Wilson-Goldsboro Freeway

I-795, known as the Wilson-Goldsboro Freeway, connects I-95 at the US 264 interchange just south of Wilson to the US 70 in Goldsboro.

Interstate 795 is the designation for the former US 117 freeway.



I-795 Wilson-Goldsboro Freeway

Population

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-795	52,090	55,562	57,120	58,592	0.69%
Rocky Mount MSA	330,169	348,216	356,249	359,698	0.51%
Market Share	15.8%	16.0%	16.0%	16.3%	

Population Density

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Total Land Area (sq mi)
I-795	293	312	321	329	178
Rocky Mount MSA	165	174	178	180	2,002

AECOM

Source: ESRI Business Analyst

I-795 Wilson-Goldsboro Freeway

Households

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-795	20,089	21,947	22,795	23,360	0.89%
Rocky Mount MSA	125,261	134,900	139,255	140,137	0.66%
Market Share	16.0%	16.3%	16.4%	16.7%	

Housing Units

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-795	22,029	24,348	25,415	26,284	1.04%
Rocky Mount MSA	139,095	150,442	155,584	158,715	0.78%
Market Share	15.8%	16.2%	16.3%	16.6%	

AECOM

Source: ESRI Business Analyst

I-795 Wilson-Goldsboro Freeway

Employment

	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term	Growth Rate (2000-2017)
I-795	35,821	36,650	33,262	36,077	0.04%
Rocky Mount MSA	144,207	142,694	135,616	132,835	-0.48%
Market Share	24.8%	25.7%	24.5%	27.2%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

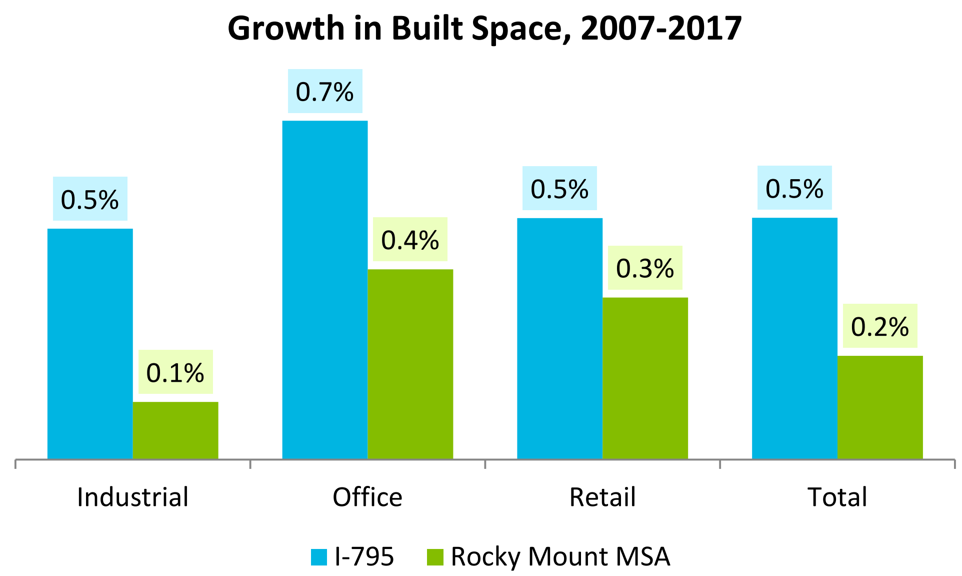
	2000 Baseline	2007 Opening Year	2010 Post-Recession	2017 Long Term
Industrial	22.0%	25.6%	24.9%	25.3%
Office	28.2%	27.5%	26.4%	29.6%
Retail	22.7%	21.2%	19.7%	25.0%

AECOM

Source: U.S. Census Bureau OnTheMap

I-795 Wilson-Goldsboro Freeway

- Growth in commercial space within the I-795 corridor outpaced the Rocky Mount metro area between 2007 and 2017.
- Office space along the corridor grew at the fastest rate of all commercial categories.
- The corridor delivered 46% of total commercial built space in the Rocky Mount metro since 2007.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
I-795	305,552	52,152	326,835	684,539
Rocky Mount MSA	394,647	198,258	903,555	1,496,460
% Total Built Space	77%	26%	36%	46%

Source: CoStar

I-210 Glendora to Fontana

Length: 20 miles

Construction Timeline: 1990-2003

Metro: Los Angeles, CA

Designation: Suburban Infill

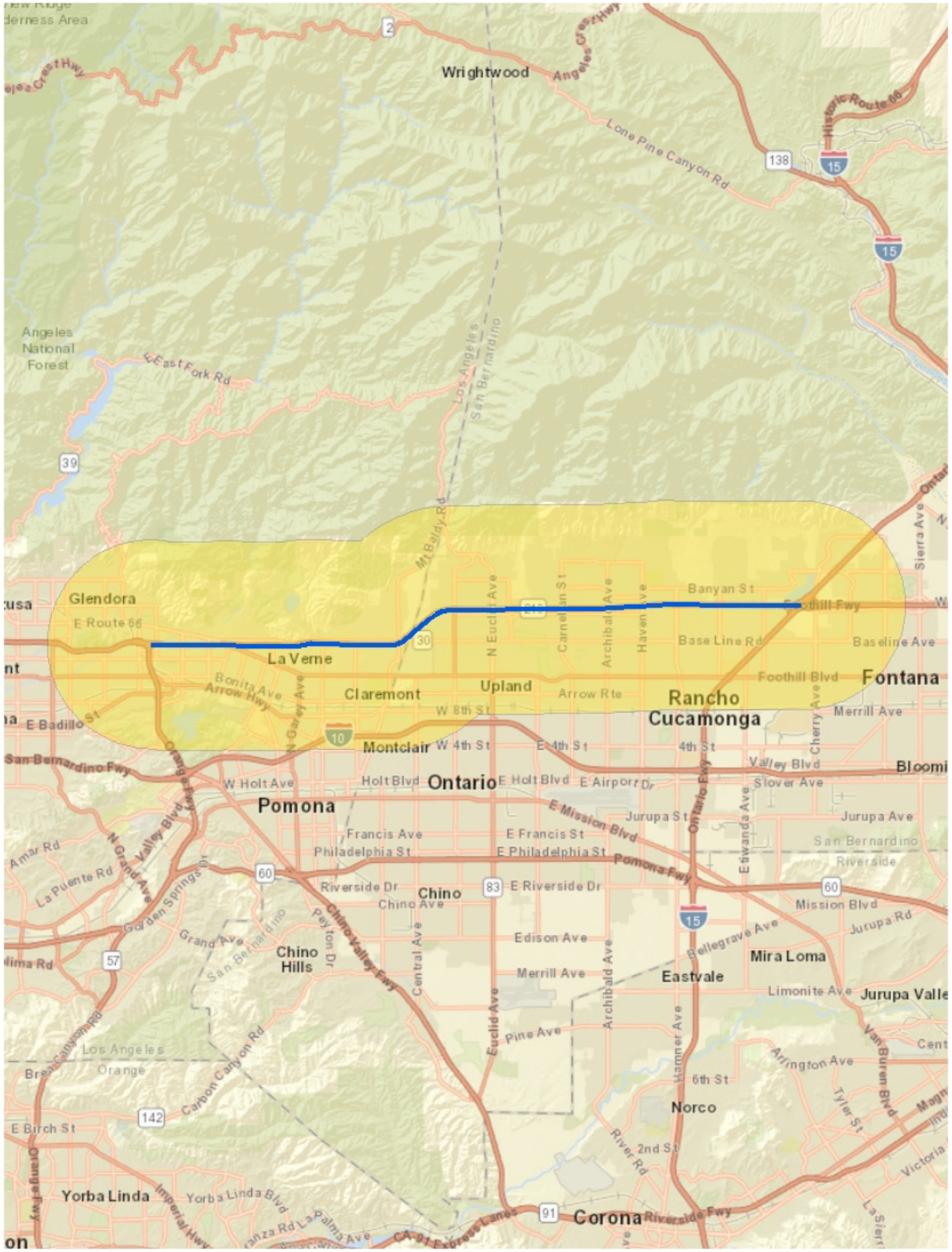
Daily Traffic Count:

- First Year: 239,000
- Current Year: 257,000

Source: California Department of Transportation Traffic Census Program

Interstate 210

Interstate 210, also known as Foothill Freeway, is a segment connecting Glendora at SR 57 to Fontana between I-15 and I-215.



Interstate 210

Population

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-210	426,971	446,994	475,160	528,730	1.27%
Los Angeles MSA	15,620,222	16,037,126	16,610,358	18,047,446	0.85%
Market Share	2.7%	2.8%	2.9%	2.9%	

Population Density

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Total Land Area (sq mi)
I-210	2,986	3,126	3,323	3,697	143
Los Angeles MSA	486	499	517	561	32,159

AECOM

Source: ESRI Business Analyst

Interstate 210

Households

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-210	139,980	146,221	154,978	170,370	1.16%
Los Angeles MSA	5,103,795	5,228,615	5,399,804	5,795,733	0.75%
Market Share	2.7%	2.8%	2.9%	2.9%	

Housing Units

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-210	144,528	151,488	161,293	176,604	1.19%
Los Angeles MSA	5,426,356	5,590,851	5,817,961	6,252,669	0.84%
Market Share	2.7%	2.7%	2.8%	2.8%	

AECOM

Source: ESRI Business Analyst

Interstate 210

Employment

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-210	138,671	149,042	167,784	186,187	1.75%
Los Angeles MSA	6,131,097	6,357,805	6,841,895	7,614,436	1.28%
Market Share	2.3%	2.3%	2.5%	2.4%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term
Industrial	2.3%	2.3%	2.2%	2.4%
Office	2.2%	2.3%	2.4%	2.3%
Retail	2.5%	2.6%	2.9%	3.0%

AECOM

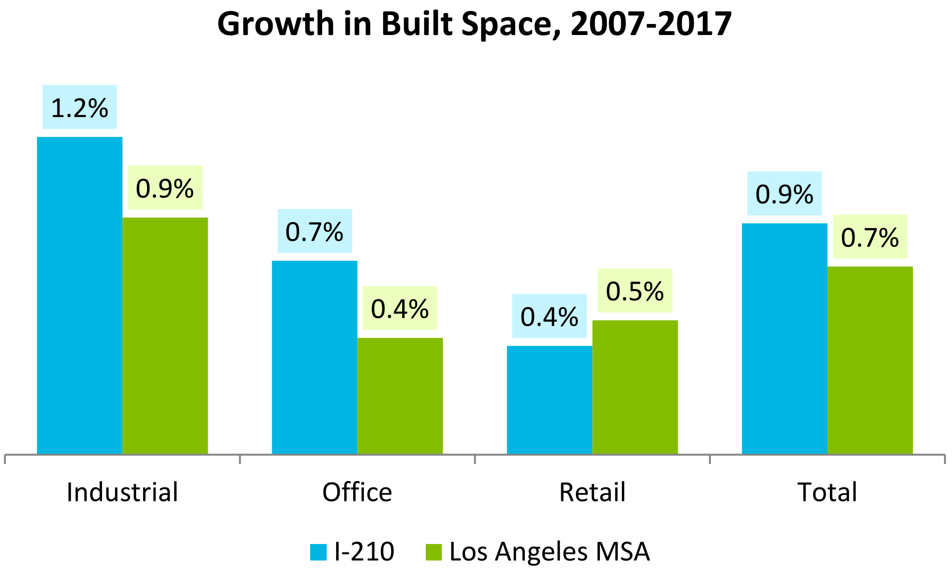
Source: U.S. Census Bureau OnTheMap

Interstate 210

– Growth in commercial space within the I-210 corridor outpaced the Los Angeles metro area between 2007 and 2017.

– Industrial space along the corridor grew at the fastest rate of all commercial categories.

– The corridor delivered 3% of total commercial built space in the Los Angeles metro since 2007.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
I-210	5,651,301	966,645	2,420,119	9,038,065
Los Angeles MSA	212,366,721	47,619,582	59,392,153	319,378,456
% Total Built Space	3%	2%	4%	3%

Source: CoStar

I-485 Charlotte Outer Belt

Length: 12.5 miles

Construction Timeline: 1990-2003

Metro: Charlotte, NC

Designation: Rural Fringe

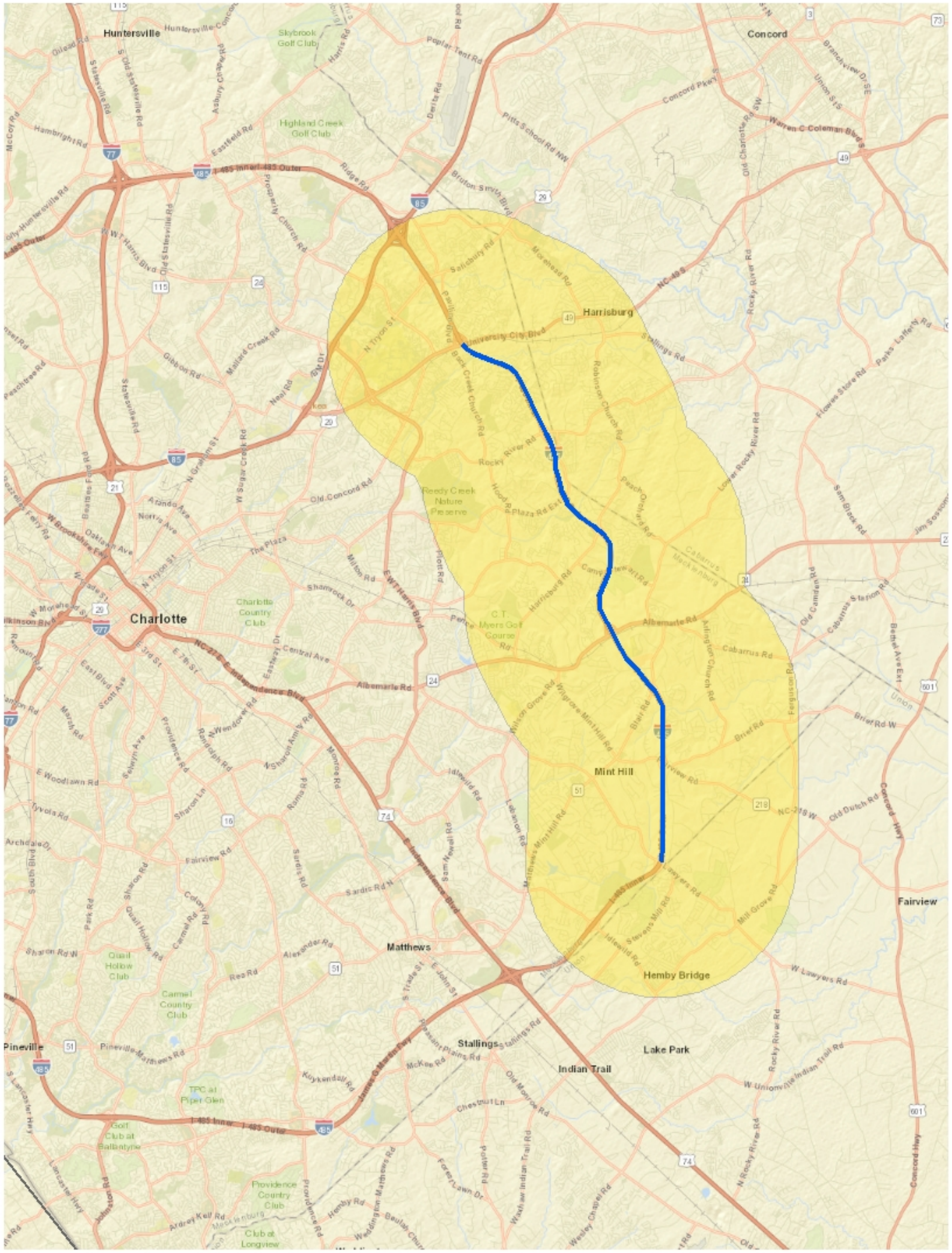
Daily Traffic Count:

- First Year: 38,000
- Current Year: 81,000

Source: North Carolina Department of Transportation

I-485 Charlotte

The last 12.5 miles needed to link main Interstate 485 to its northern stub, between University City Boulevard and Lawyers Road.



I-485 Charlotte

Population

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-485	72,016	83,630	102,080	141,232	4.04%
Charlotte MSA	1,457,457	1,573,417	1,742,507	2,115,421	2.22%
Market Share	4.9%	5.3%	5.9%	6.7%	

Population Density

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Total Land Area (sq mi)
I-485	673	782	954	1,320	107
Charlotte MSA	436	471	521	633	3,342

AECOM

Source: ESRI Business Analyst

I-485 Charlotte

Households

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-485	25,419	29,729	36,635	50,826	4.16%
Charlotte MSA	561,653	605,178	668,503	806,139	2.15%
Market Share	4.5%	4.9%	5.5%	6.3%	

Housing Units

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-485	26,995	31,627	39,062	53,466	4.10%
Charlotte MSA	601,832	654,216	731,222	883,264	2.28%
Market Share	4.5%	4.8%	5.3%	6.1%	

AECOM

Source: ESRI Business Analyst

I-485 Charlotte

Employment

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-485	23,426	26,182	35,593	49,345	4.48%
Charlotte MSA	794,466	799,655	884,630	1,113,336	2.00%
Market Share	2.9%	3.3%	4.0%	4.4%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

	2000 Baseline	2003 Opening Year	2007 Pre-Recession	2017 Long Term
Industrial	1.2%	1.3%	1.7%	1.8%
Office	3.2%	3.8%	4.7%	5.0%
Retail	5.8%	5.6%	5.8%	5.9%

AECOM

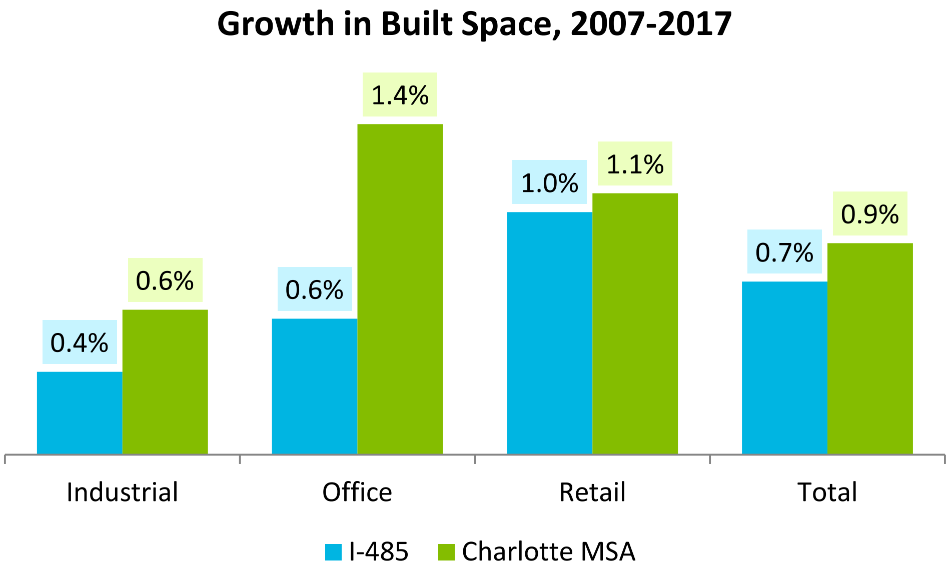
Source: U.S. Census Bureau OnTheMap

I-485 Charlotte

– The Charlotte metro outpaced the growth in commercial space for the I-485 corridor since 2007.

– Retail space along the corridor grew at the fastest rate of all commercial categories.

– The corridor delivered 2% of total commercial built space in the Charlotte metro since 2007.



Square Footage Built, 2007-2017				
	Industrial	Office	Retail	Total
I-485	257,371	375,410	671,192	1,303,973
Charlotte MSA	23,106,853	16,405,512	18,268,623	57,780,988
% Total Built Space	1%	2%	4%	2%

AECOM

Source: CoStar

US 68 Eagle Way Bypass

Length: 13.5 miles

Construction Timeline: 1999-2001

Metro: Clarksville-Hopkinsville, TN-KY

Designation: Rural Fringe

Daily Traffic Count:

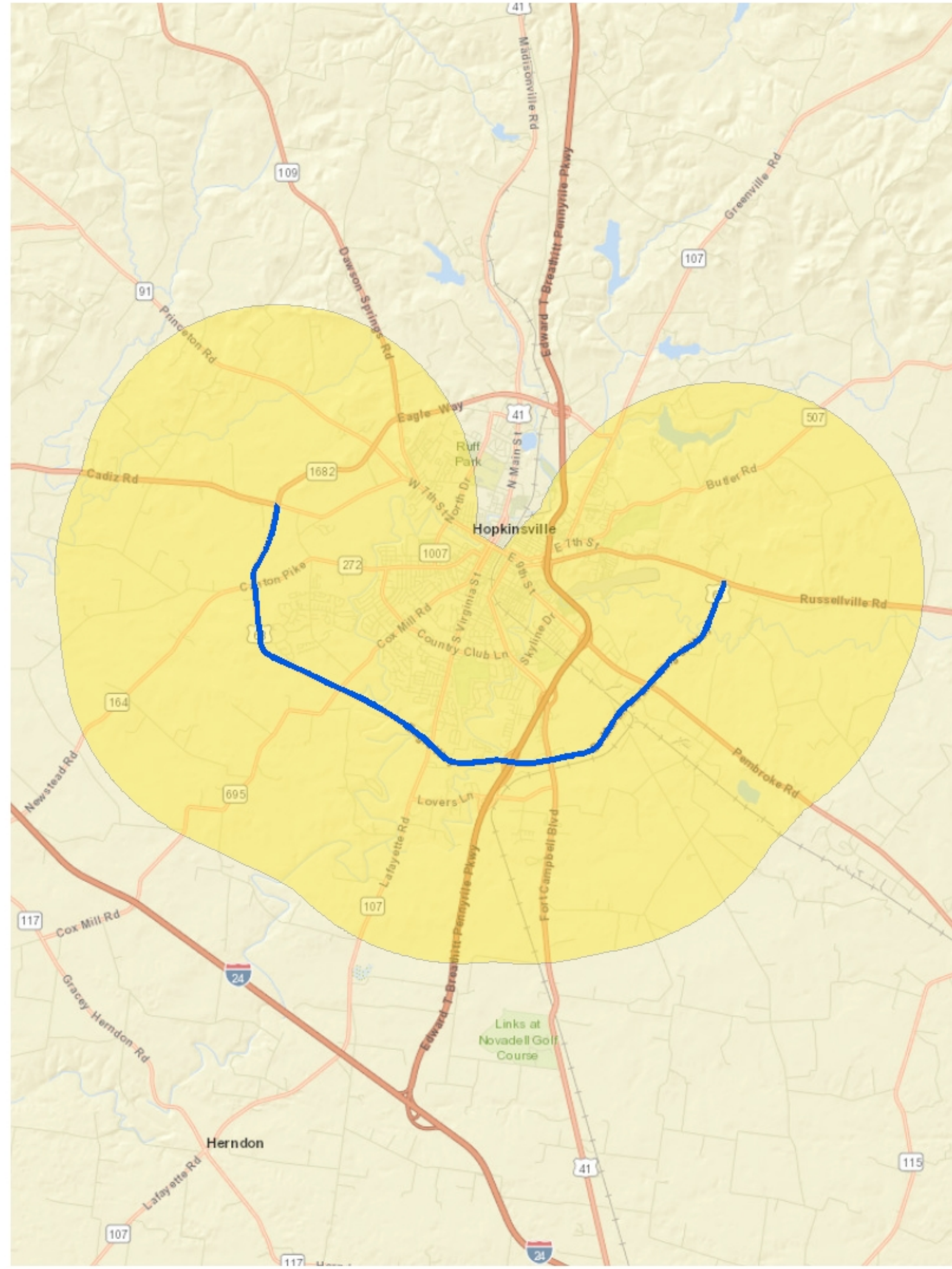
- First Year: 21,000
- Current Year: 30,500

Source: Kentucky Transportation Cabinet

Eagle Way Bypass

Eagle Way (also known locally as the Dr. Martin Luther King, Jr. Boulevard or the Hopkinsville Bypass) is a partial beltway around the outer portions of Hopkinsville, Kentucky.

The beltway includes the entire length of US 68 Bypass from Cadiz Road to Jefferson Davis Highway.



Eagle Way Bypass

Population

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Eagle Way	32,022	32,126	32,755	34,569	0.45%
Hopkinsville MSA	232,000	235,888	260,624	304,602	1.61%
Market Share	13.8%	13.6%	12.6%	11.3%	

Population Density

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Total Land Area (sq mi)
Eagle Way	341	342	348	368	94
Hopkinsville MSA	103	105	116	136	2,242

AECOM

Source: ESRI Business Analyst

Eagle Way Bypass

Households

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Eagle Way	12,816	12,886	13,312	14,040	0.54%
Hopkinsville MSA	83,332	84,957	95,395	112,354	1.77%
Market Share	15.4%	15.2%	14.0%	12.5%	

Housing Units

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Eagle Way	13,926	14,038	14,728	15,769	0.73%
Hopkinsville MSA	92,024	94,028	107,002	127,655	1.94%
Market Share	15.1%	14.9%	13.8%	12.4%	

AECOM

Source: ESRI Business Analyst

Eagle Way Bypass

Employment

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
Eagle Way	16,718	16,707	16,640	17,601	0.30%
Hopkinsville MSA	64,385	65,654	73,816	85,708	1.70%
Market Share	26.0%	25.4%	22.5%	20.5%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

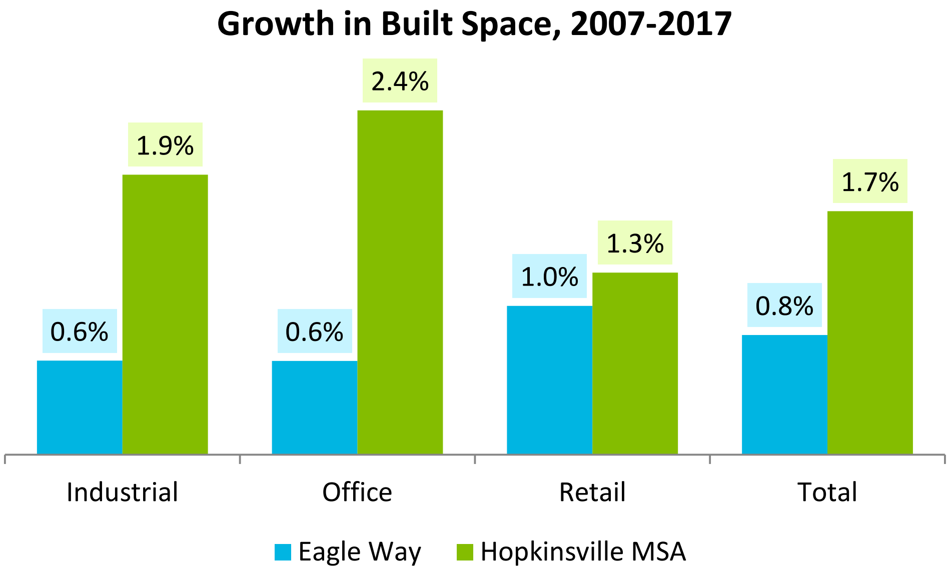
	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term
Industrial	38.0%	36.7%	29.4%	25.1%
Office	19.5%	19.6%	20.1%	21.0%
Retail	22.3%	21.8%	19.0%	15.5%

AECOM

Source: U.S. Census Bureau OnTheMap

Eagle Way Bypass

- Commercial space within the Hopkinsville metro grew at twice the rate of the Eagle Way corridor from 2007 to 2017.
- Retail space along the corridor grew at the fastest rate of all commercial categories.
- The corridor delivered 8% of total commercial built space in the Hopkinsville metro since 2007.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
Eagle Way	151,549	34,189	253,704	439,442
Hopkinsville MSA	3,023,119	673,175	1,725,390	5,421,684
% Total Built Space	5%	5%	15%	8%

AECOM

Source: CoStar

I-185 Southern Connector

Length: 14 miles

Construction Timeline: 1997-2001

Metro: Greenville, SC

Designation: Rural Fringe

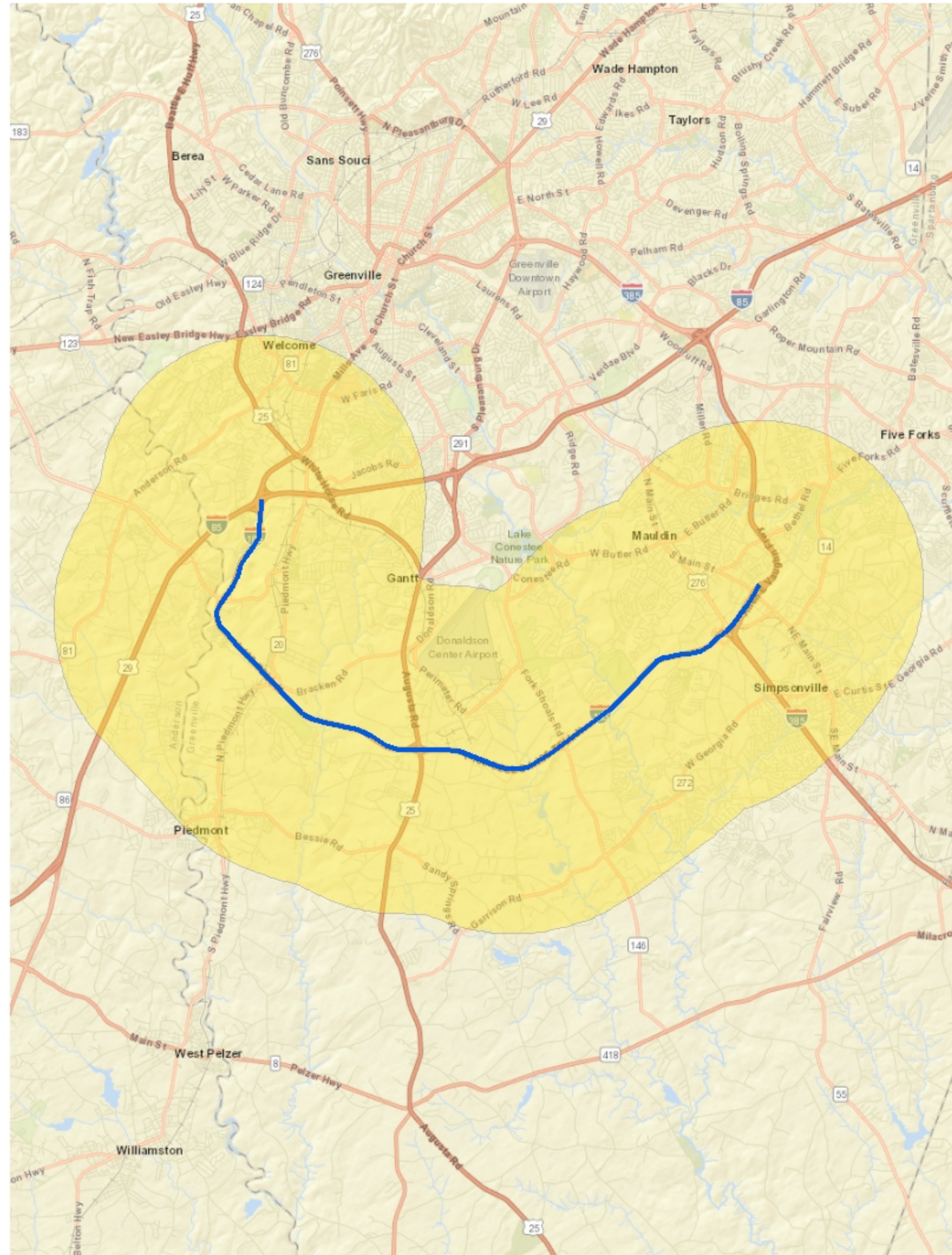
Daily Traffic Count:

- First Year: 16,300
- Current Year: 22,600

Source: South Carolina Department of Transportation

Southern Connector

The southern portion of I-185, dubbed the “Southern Connector”, is a toll road connecting I-85/I-185 interchange (exit 42) with the I-385/US 276 interchange (exit 30).



Southern Connector

Population

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-185	86,964	88,855	101,098	120,710	1.95%
Greenville MSA	725,680	734,969	793,257	897,247	1.26%
Market Share	12.0%	12.1%	12.7%	13.5%	

Population Density

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Total Land Area (sq mi)
I-185	756	773	879	1,050	115
Greenville MSA	260	264	285	322	2,788

AECOM

Source: ESRI Business Analyst

Southern Connector

Households

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-185	33,577	34,306	39,022	46,269	1.90%
Greenville MSA	282,801	286,417	309,104	348,305	1.23%
Market Share	11.9%	12.0%	12.6%	13.3%	

Housing Units

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-185	35,952	36,803	42,349	49,489	1.90%
Greenville MSA	312,255	316,922	346,424	389,077	1.30%
Market Share	11.5%	11.6%	12.2%	12.7%	

AECOM

Source: ESRI Business Analyst

Southern Connector

Employment

	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term	Growth Rate (2000-2017)
I-185	55,363	54,760	51,279	51,415	-0.43%
Greenville MSA	338,466	342,799	369,985	407,898	1.10%
Market Share	16.4%	16.0%	13.9%	12.6%	

Employment by Sector

Percentages reflect the share of total MSA employment that falls within the three mile corridor.

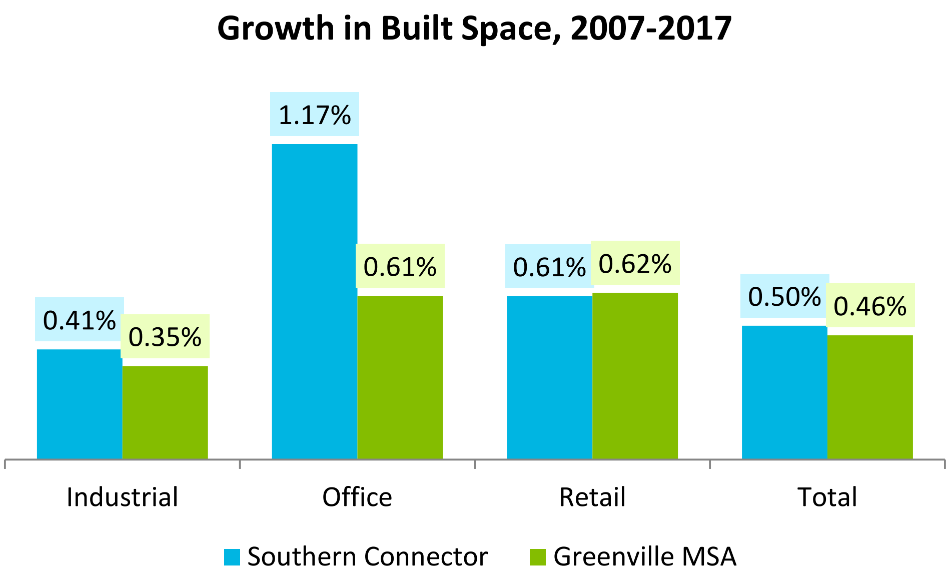
	2000 Baseline	2001 Opening Year	2007 Pre-Recession	2017 Long Term
Industrial	16.9%	16.9%	17.3%	22.7%
Office	18.7%	18.1%	15.0%	9.7%
Retail	9.9%	9.4%	7.0%	6.8%

Source: U.S. Census Bureau OnTheMap

AECOM

Southern Connector

- The I-185 corridor and Greenville metro area experienced similar rates of growth for built commercial space.
- Office space along the corridor grew at the fastest rate of all commercial categories.
- The corridor delivered 16% of total commercial built space in the Greenville metro since 2007.



Square Footage Built, 2007-2017

	Industrial	Office	Retail	Total
I-185	1,848,792	383,760	575,233	2,807,785
Greenville MSA	9,047,561	2,559,441	5,478,616	17,085,618
% Total Built Space	20%	15%	10%	16%

AECOM

Source: CoStar