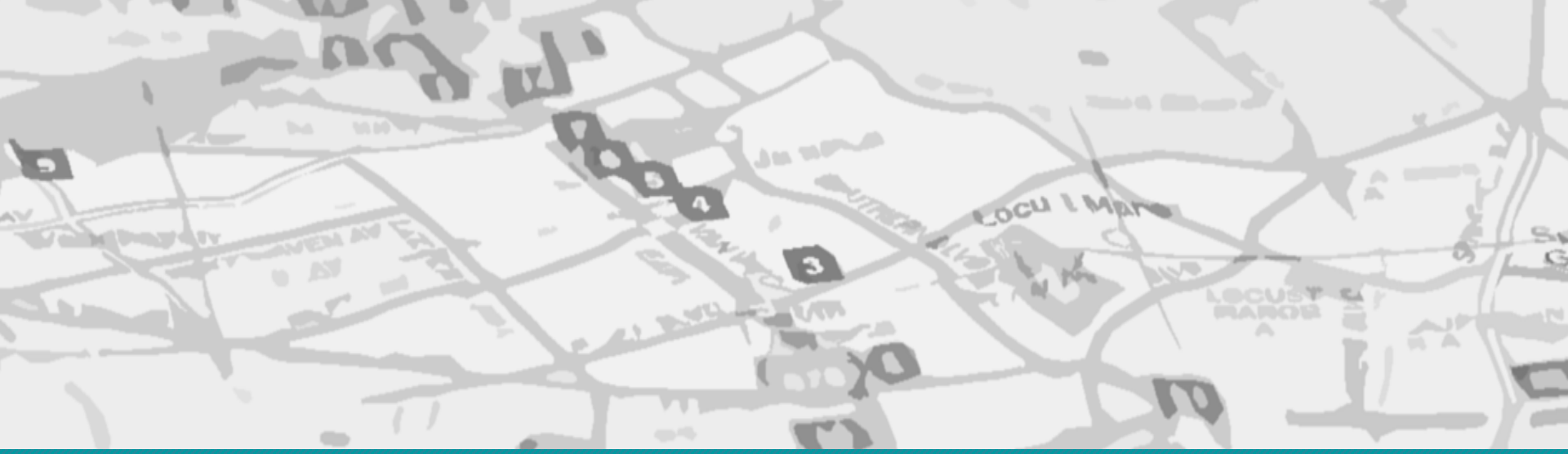


REGIONAL SNAPSHOT

Tri-County Region, North Dakota

PURDUE UNIVERSITY

Center for Regional Development
Advancing Collaboration : Energizing Regions

Table of contents

01 overview

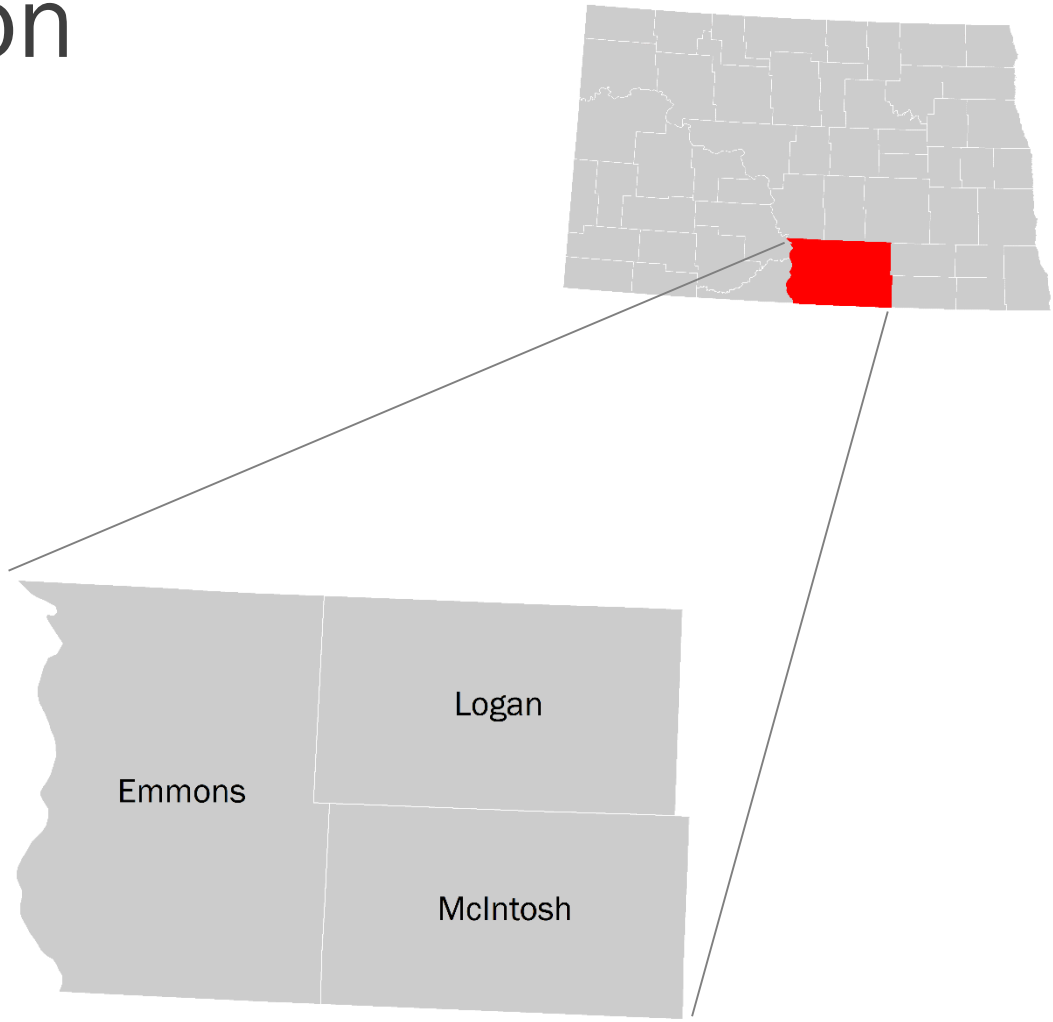
Tri-County Region, ND

What is a regional snapshot?

Tricounty Region

The Tricounty Region is comprised of three North Dakota counties. U.S. State Route 83 passes through the western part of the region connecting to I-94 to the north.

- Emmons
- Logan
- McIntosh



What is a regional snapshot?

What is the snapshot?

This snapshot is a demographic and economic assessment of the Tri-County Region in North Dakota. Using county-level data, PCRD analyzed a number of indicators to gauge the overall economic performance of the Tri-County Region in comparison to the rest of the state.

What is its purpose?

The snapshot is intended to inform the region's leaders, organizations and residents of the key attributes of the region's population and economy. In particular, it takes stock of the region's important assets and challenges. With such data in hand, regional leaders and organizations are in a better position to invest in the mix of strategies that will spur the growth of the economy and provide a higher quality of life for residents of the region.

What are its focus areas?

PCRD secured and analyzed recent data from both public and private sources to generate the snapshot. In order to build a more comprehensive picture of the region, the report presents information under four key categories.

- Demography
- Human Capital
- Labor Force
- Industry & Occupation

When appropriate or relevant, the report compares information on the region with data on the remainder of the state. By so doing, the region is better able to determine how well it is performing relative to the state on a variety of important metrics.

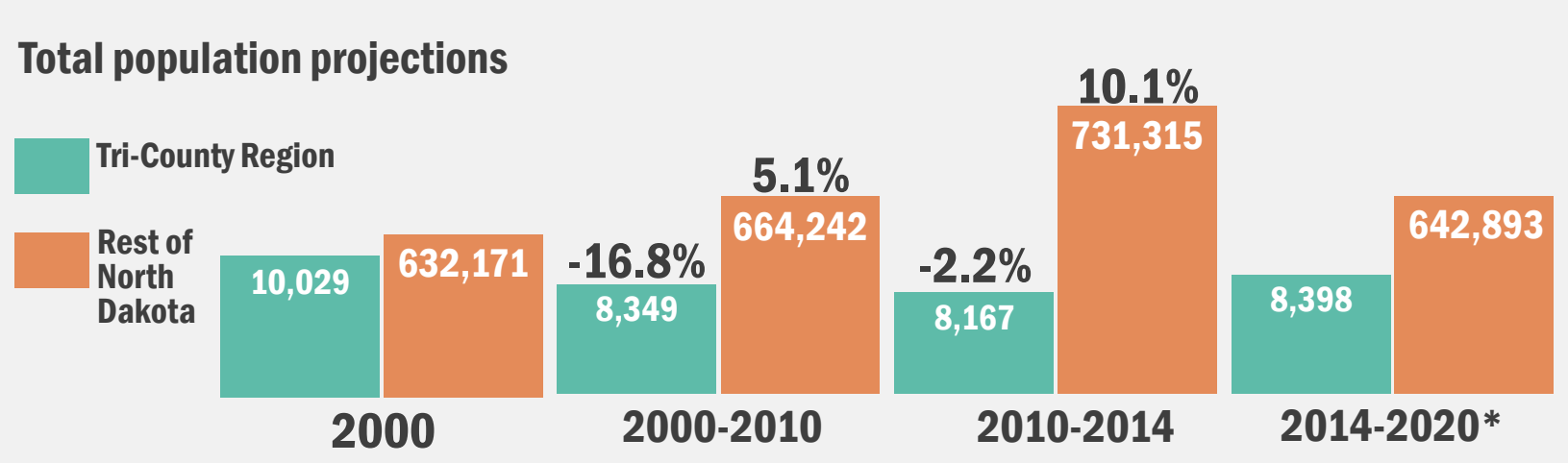
02 demography

Population change

Age structure

Income and poverty

Population change



* estimated in 2002

Questions:

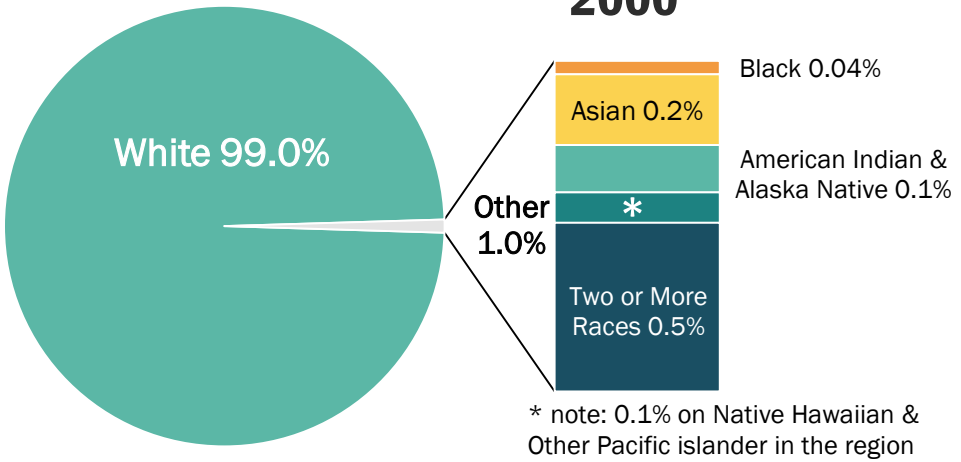
- How does the region's population trend compare to that of the state?
- What may be some of the elements driving the trends in the region? In the state?
- What strengths or challenges might these trends present?

Source: 2000 & 2010 Census, 2013 Population Estimates, and 2020 Population by NDSU

Note: The 2020 population projection does not account for the recent natural gas boom

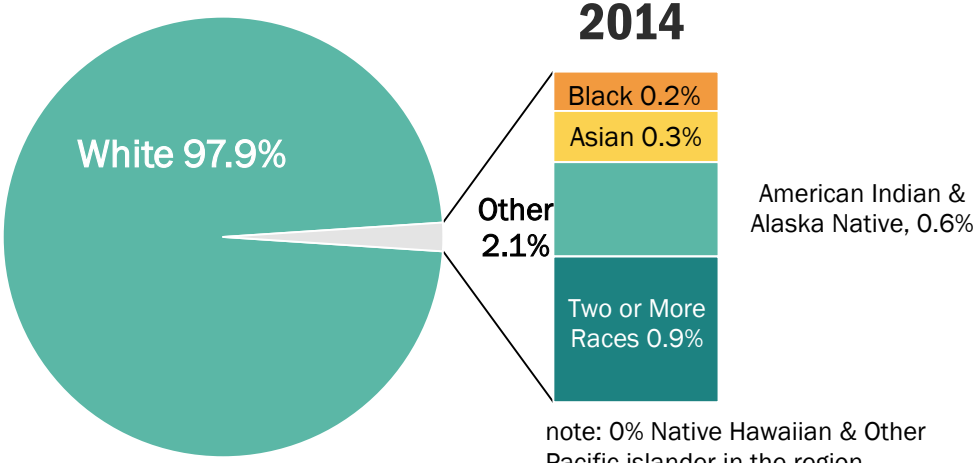
Race

2000



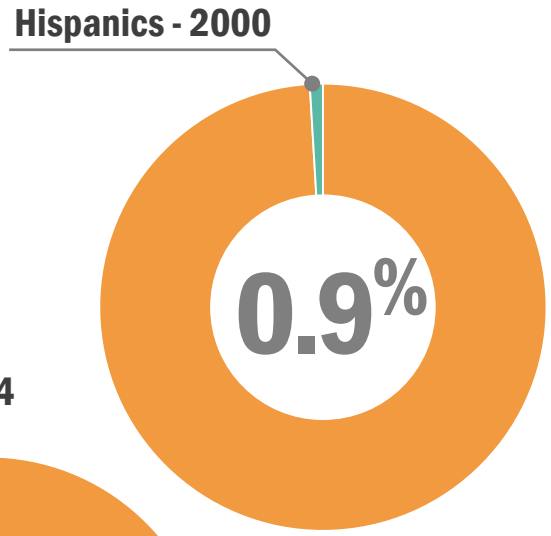
* note: 0.1% on Native Hawaiian & Other Pacific islander in the region

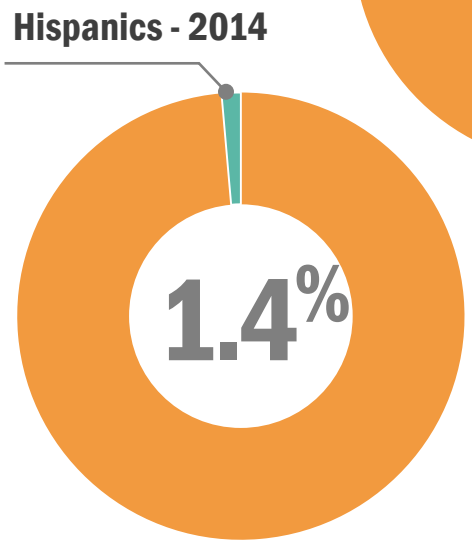
2014



note: 0% Native Hawaiian & Other Pacific islander in the region

Ethnicity

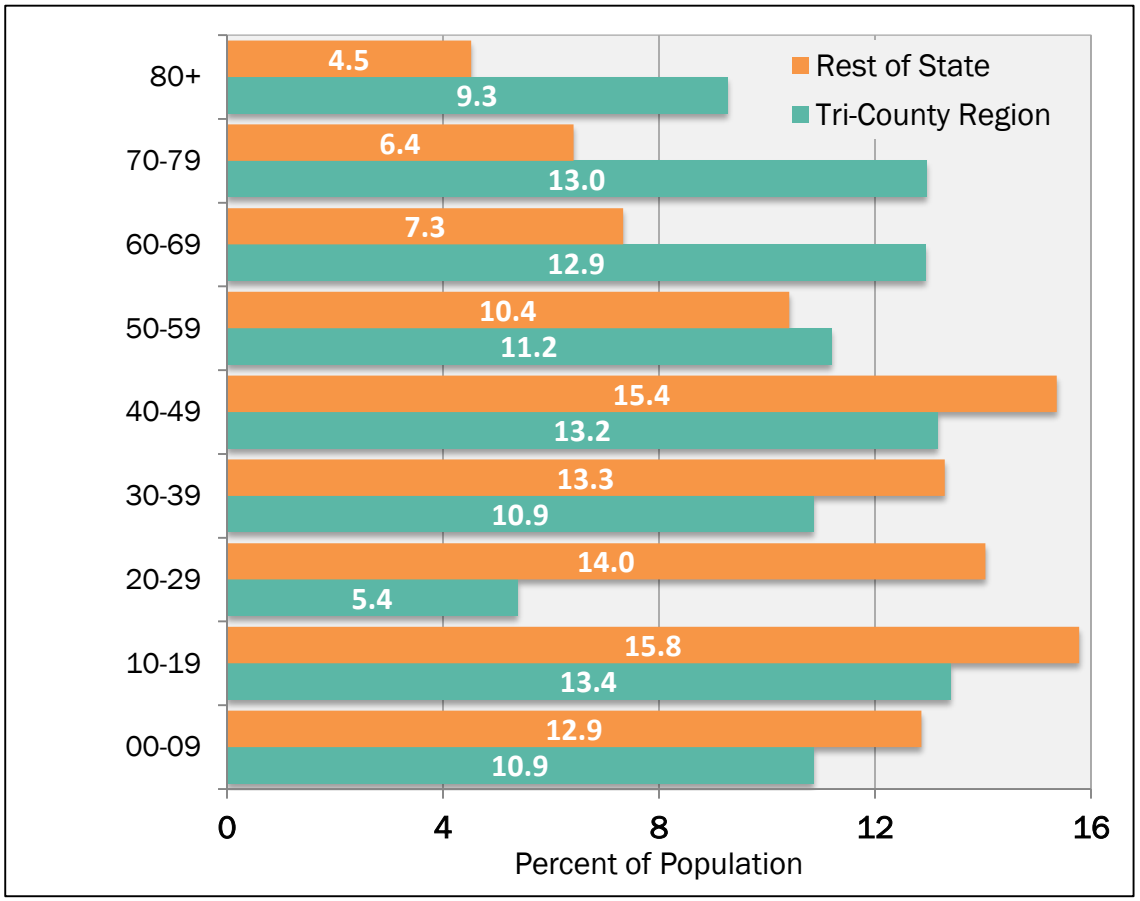




Race Data Source: U.S. Census Bureau – 2000 Decennial Census and 2014 Annual Population Estimates

Population Age Structure, 2000

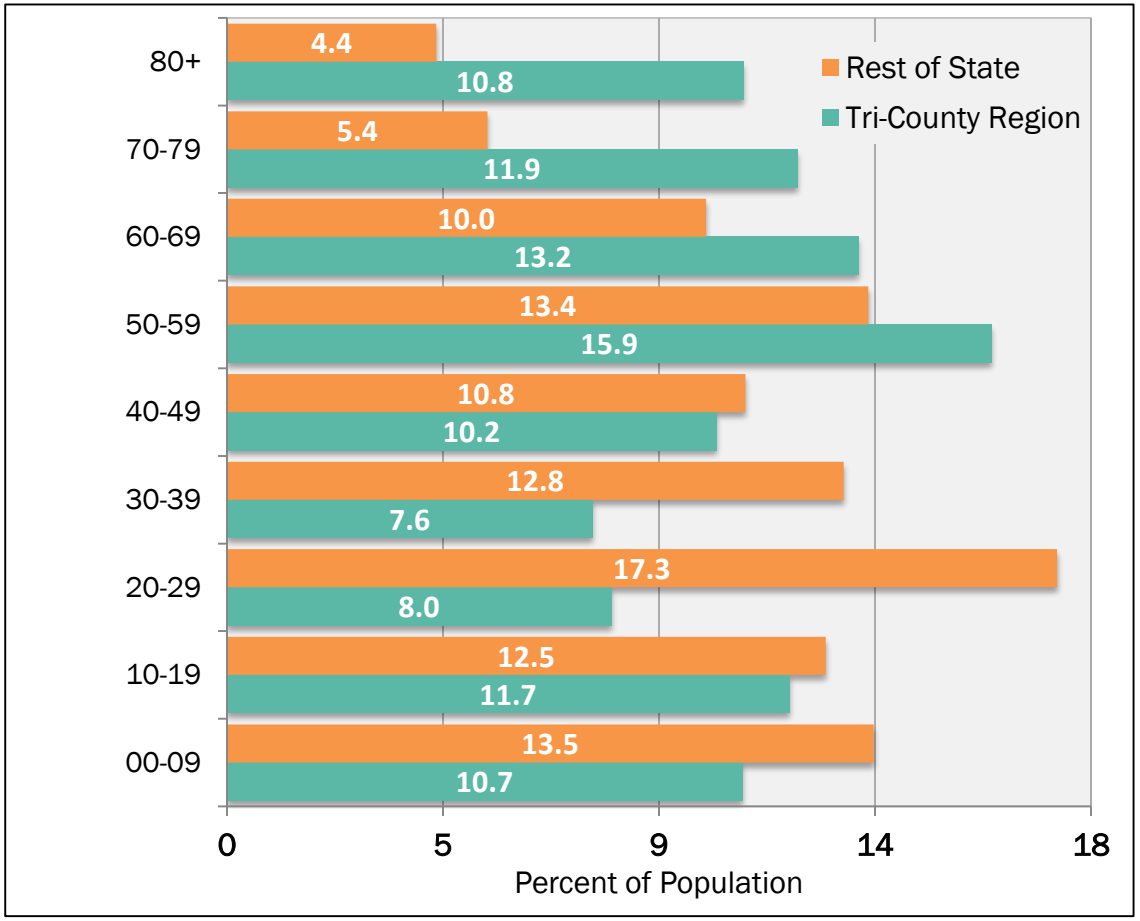
A visual presentation of the age distribution of the population (in percent)



Source: 2000 Decennial Census, U.S. Census Bureau

Population Age Structure, 2014

A visual presentation of the age distribution of the population (in percent)



Questions:

- Is the region experiencing an aging of its population? How does this compare to the rest of the state?
- Is there a sizable number of people of prime working age (20-49 years of age) in the region?
- Is the youth population (under 20 years old) growing or declining?
- What are the implications of the region's age structure for the economic development efforts of the region?

Source: 2014 Population Estimates, U.S. Census Bureau

Income and poverty

	2003	2008	2013
Total Population in Poverty	12.8%	13.2%	13.9%
Minors (Age 0-17) in Poverty	16.6%	20.2%	15.2%
Real Median Household Income* ($ 2013)	$37,248	$38,365	$43,669

Questions:

- Is the poverty rate for individuals in the county getting better or worse?
- Is poverty for minors in the county lower or higher than the overall poverty rate for all individuals? Why?
- Has real median income (adjusted for inflation) improved or worsened over the 2003 to 2013 time period? What may be reasons for these changes?

* Note: Regional Median Household income is the population-weighted average of median household income values across the Tri-County North Dakota counties.
Source: U.S. Census Bureau – Small Area Income and Poverty Estimates (SAIPE)

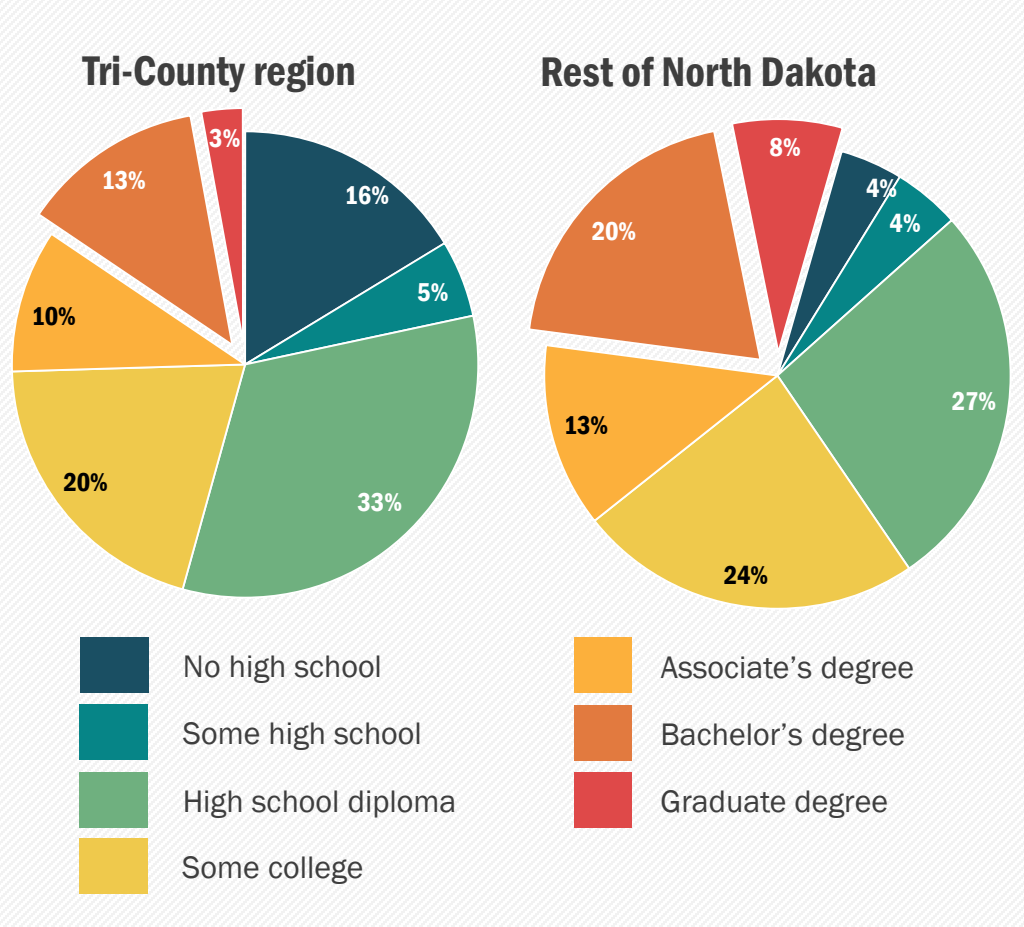
03 human capital

Educational attainment

Graduation rates

Patents

Educational attainment, 2013



Questions:

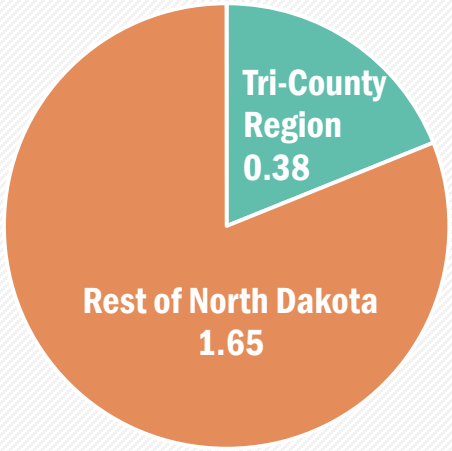
- What proportion of the adult population in the region has only a high school education?
- How many are college graduates (bachelors degree or higher)?
- How does the educational profile of the region compare to that of the rest of the state?
- What are the implications of the educational profile of the region in terms of the region's economic opportunities or workforce challenges?

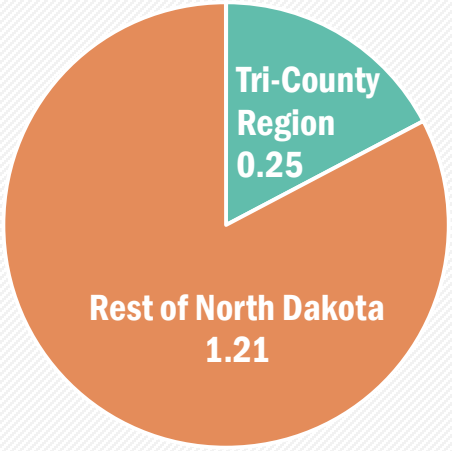
Source: 2009-2013 American Community Survey 5-Year Estimates

Patents

Patents per 10,000 Jobs
2001-2013

From 2001 to 2013, Tri-County counties were issued patents at a rate of 0.38 per 10,000 jobs, while the remaining North Dakota counties garnered 1.65 patents per 10,000 jobs.





Patents per 10,000 residents
2001-2013

From 2001 to 2013, 0.25 patents per 10,000 residents were issued in Tri-County counties. The rest of North Dakota amassed 1.21 patents per 10,000 residents.

Patenting trends are an important indicator of the level of innovation in a region.

Commercializing this innovation can lead to long-term growth for regional economies.

Questions:

- How does the region's patent rate compare to that of the rest of the state?
- How have rates changed over time?
- What might this data suggest for the future of the region?

Source: U.S. Patent and Trademark Office, Census, BEA, and EMSI

*Note: Patent origin is determined by the residence of the first-named inventor. Since a number of workers commute into the region, the number of patents produced in the region could be high. However, among residents of the region, patent production is relatively low.

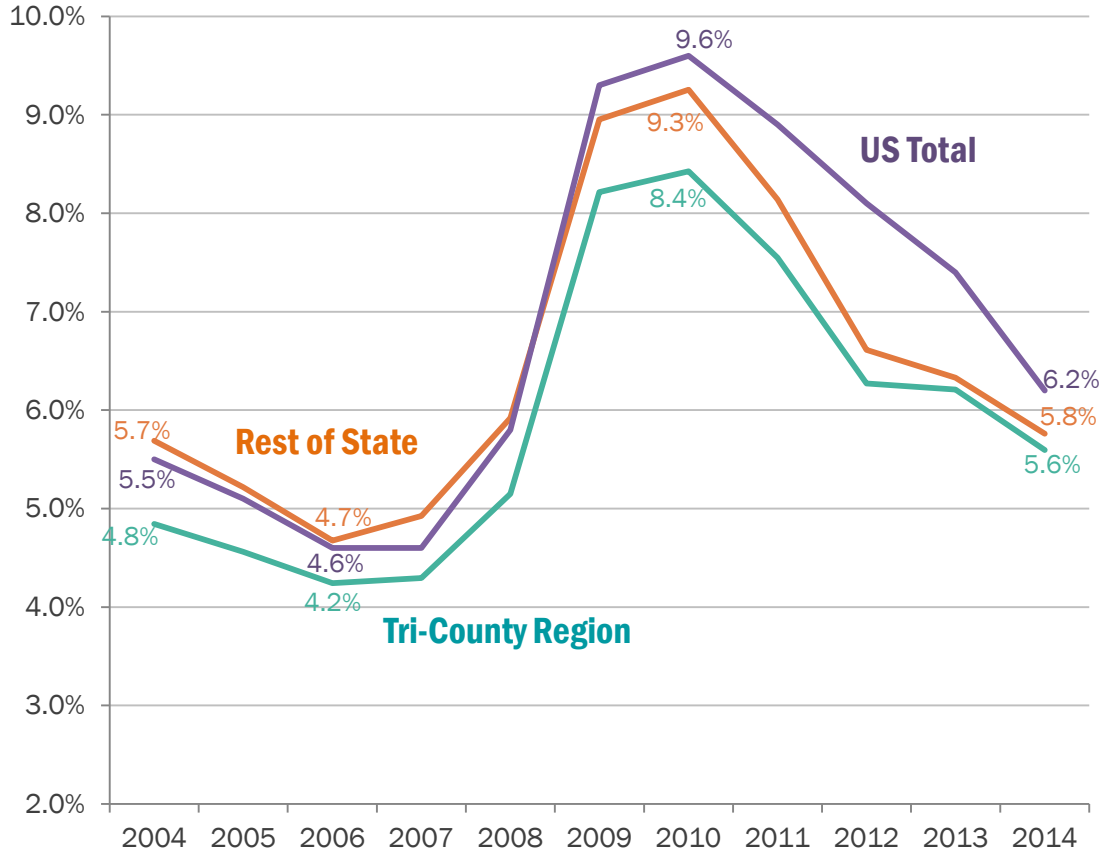
04 labor force

Unemployment rates

Earnings per worker

Source of labor for the region

Unemployment rates



Questions:

- How does the region's unemployment rate compare to the rest of the state and nation?
- How does the region's unemployment peak and post-2009 recovery compare to the state and nation?
- What might this suggest for the region's economic future?

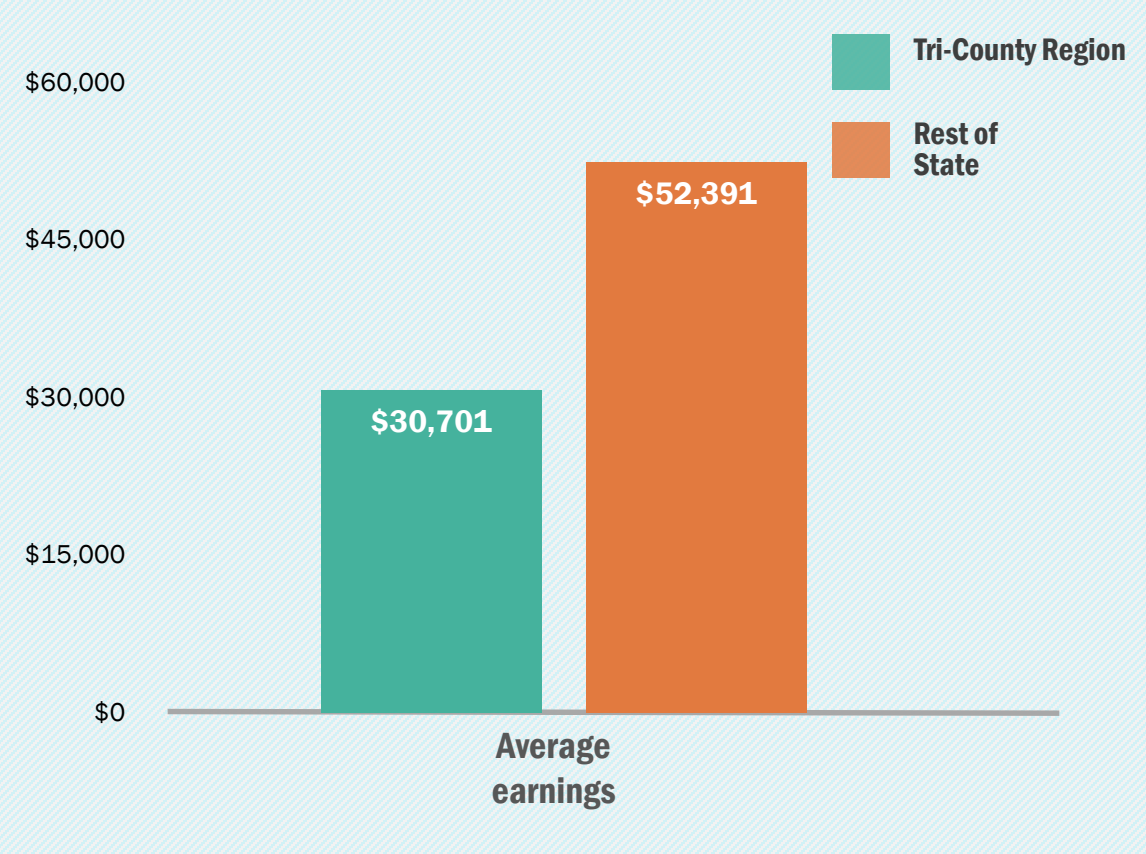
Source: LAUS, BLS

Earnings per worker in 2014

Questions:

- How does the region's average earnings compare to that of the rest of the state?
- What might be some driving factors for the differences?
- Do these represent potential strengths or challenges for the region?

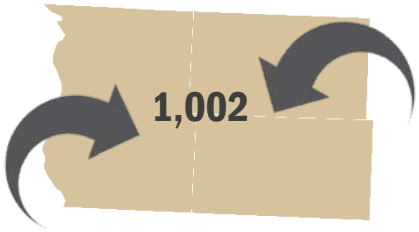
NOTE: Earnings include wages, salaries, supplements and earnings from partnerships and proprietorships.



Source: EMSI Class of Worker 2014.4 (QCEW, non-QCEW, self-employed and extended proprietors)

Journey to Work

In-Commuters



Same Work/Home

Out-Commuters

Population	2013 Jobs	Proportion
Employed in Region	2,621	100.0%
Employed in Region but Living Outside	1,002	38.2%
Employed and Living in Region	1,619	61.8%

Population	2013 Jobs	Proportion
Region Residents	3,351	100.0%
Employed Outside Region but Living in Region	1,732	51.7%
Employed and Living in Region	1,619	48.3%

Questions:

- How many people employed in the region actually reside outside the region? How many who live in the region commute to jobs outside the region?
- What are the implications for the region's economic development efforts?

Source: LEHD, OTM, U.S. Census Bureau

05 industry and occupation

Establishments

Employment by industry

Cluster analysis

Top occupations

STEM occupations

Establishments

Components of Change for Establishments 2000-2011

Establishments Launched	1,076
Establishments Closed	687
Net Change	389
Net Migration (Establishments moving into minus establishments moving out of the region)	0
Total Change	389
Percent Change	35.5%

An establishment is a physical business location.

Branches, standalones and headquarters are all considered types of establishments.

Definition of Company Stages

0 Self-employed

1 2-9 employees

2 10-99 employees

3 100-499 employees

4 500+ employees

Note: In-migration and Out-migration includes movement within the TCR region.

Source: National Establishment Time Series (NETS) – 2011 Database

Establishments

Number of Establishments by Company Stages

	2000		2011	
Stage	**Establishments**	**Proportion**	**Establishments**	**Proportion**
Stage 0	466	42.6%	664	44.7%
Stage 1	550	50.2%	736	49.6%
Stage 2	75	6.8%	80	5.4%
Stage 3	4	0.4%	4	0.3%
Stage 4	0	0.0%	0	0.0%
Total	**1,095**	**100%**	**1,484**	**100.00%**

Questions:

- What stage businesses have shaped the region's economic growth in the last 10 years?
- Which ones are growing or declining the most?
- Which stage of establishments are likely to shape the region's future economic growth?

Source: National Establishment Time Series (NETS) – 2011 Database

Establishments

Number of Jobs by Company Stages

Year	2001	2011	% Change
Stage 0	466	664	42.5%
Stage 1	1,702	2,107	23.8%
Stage 2	1,573	1,807	14.9%
Stage 3	550	480	-12.7%
Stage 4	0	0	0
Total	**4,291**	**5,058**	**17.9%**

Sales ($ 2012) by Company Stages

Year	2001	2011	% Change
Stage 0	$68,878,208	$45,656,748	-33.7%
Stage 1	$233,094,614	$181,086,263	-22.3%
Stage 2	$215,010,051	$170,875,894	-20.5%
Stage 3	$64,028,102	$18,723,960	-70.8%
Stage 4	$0	$0	$0
Total	**$581,010,974**	**$416,342,866**	**-28.3%**

Questions:

- What establishments are the most numerous based on company stages?
- What stages have experienced the largest growth? The greatest decline?
- What company stage employs the largest number of people?
- What stage captures the most sales?
- Which ones have experienced the greatest percentage loss over the 2002-11 period?

Source: National Establishment Time Series (NETS) – 2011 Database

Top ten industry sector employment growth

NAICS	Description	2009 Jobs	2014 Jobs	Change	Change (%)	State Change (%)
53	Real Estate and Rental and Leasing	87	165	78	90%	48%
42	Wholesale Trade	305	446	141	46%	45%
44	Retail Trade	395	531	136	34%	15%
52	Finance and Insurance	233	298	65	28%	17%
71	Arts, Entertainment, and Recreation	71	89	18	25%	15%
48	Transportation and Warehousing	121	151	30	25%	93%
23	Construction	285	353	68	24%	55%

Questions:

- What regional industry sectors have seen the greatest growth?
- Did they grow at the same rate as the state?
- What factors are causing the growth?

Source: EMSI Class of Worker 2014.4 (QCEW, non-QCEW, self-employed and extended proprietors)

Top ten industry sector employment decline

NAICS	Description	2008 Jobs	2013 Jobs	Change	Change (%)	State Change (%)
56	Administrative and Support and Waste Management and Remediation Services	119	96	-23	-19%	6%
54	Professional, Scientific, and Technical Services	133	122	-11	-8%	19%
22	Utilities	26	24	-2	-8%	10%
62	Health Care and Social Assistance	736	760	24	3%	11%
90	Government	647	675	28	4%	5%
72	Accommodation and Food Services	267	297	30	11%	19%
81	Other Services (except Public Administration)	277	319	42	15%	10%
11	Crop and Animal Production	1,252	1,442	190	15%	2%
51	Information	36	42	6	17%	-7%
31	Manufacturing	109	135	26	24%	8%

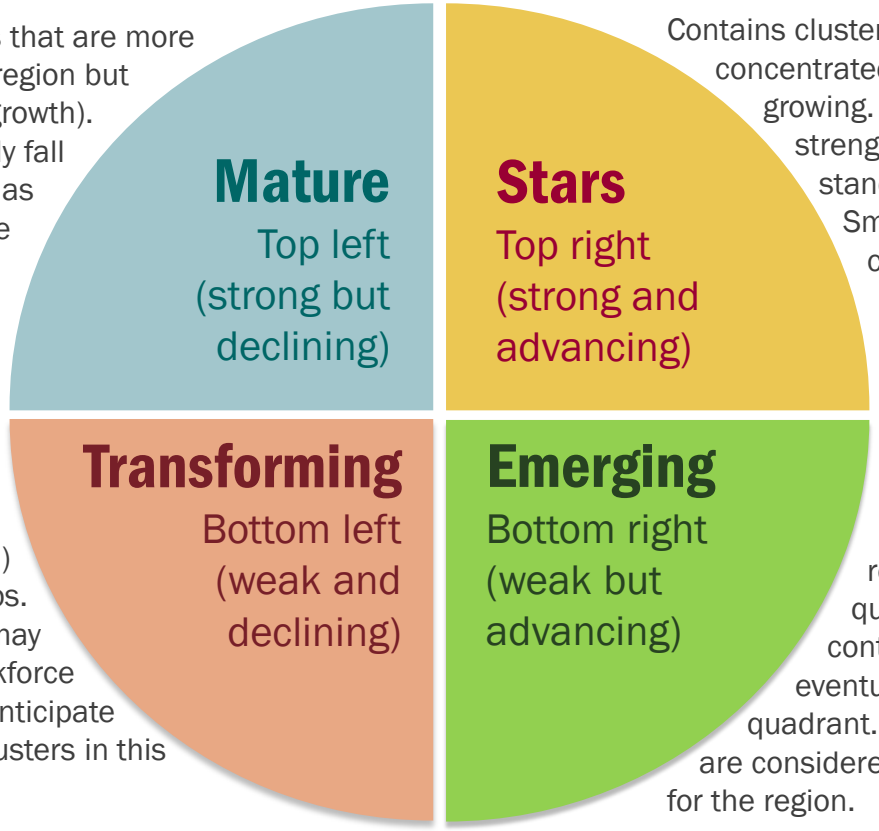
Questions:

- How does the industry sector make-up of the region compare to the rest of the state?
- Which industry sectors are growing and declining the most in employment?

Source: EMSI Class of Worker 2014.4 (QCEW, non-QCEW, self-employed and extended proprietors)

How to interpret cluster data results

The graph's four quadrants tell a different story for each cluster.



Contains clusters that are more concentrated in the region but are declining (negative growth). These clusters typically fall into the lower quadrant as job losses cause a decline in concentration.

Contains clusters that are more concentrated in the region and are growing. These clusters are strengths that help a community stand out from the competition. Small, high-growth clusters can be expected to become more dominant over time.

Contains clusters that are under-represented in the region (low concentration) and are also losing jobs. Clusters in this region may indicate a gap in the workforce pipeline if local industries anticipate a future need. In general, clusters in this quadrant show a lack of competitiveness.

Contains clusters that are under-represented in the region but are growing, often quickly. If growth trends continue, these clusters will eventually move into the top right quadrant. Clusters in this quadrant are considered emerging strengths for the region.

Modified from: http://www.charlestonregionaldata.com/bubble-chart-explanation/

Distribution of clusters in the Region by quadrants

Industry cluster analysis

Mature Clusters

Biomed/Biotechnical (Life Science) (**1.40**; 633)

Machinery Manufacturing (**1.21**; 46)

NOTE: The first number after each cluster represents its location quotient while the second number represents the number of total jobs (full and part time jobs by place of work) in that cluster in the region. The clusters are sorted in decreasing order by location quotient.

Star Clusters

Agribusiness, Food Processing & Tech (**10.78**; 1,848)

Mining (**1.09**; 19)

Level of Specialization

Percent Growth in Specialization

Transforming Clusters

Transportation Equipment Mfg. (**0.97**; 49)

Chemicals/Chemical-based Products (**0.77**; 54)

Manufacturing Supercluster (**0.54**; 105)

Arts, Ent, Recreation. & Visitor Industries (**0.50**; 119)

Advanced Materials (**0.42**; 72)

Information Technology & Telecom. (**0.15**; 34)

Emerging Clusters

Energy(Fossil & Renewable) (**0.84**; 263)

Transportation & Logistics (**0.82**; 150)

Forest & Wood Products (**0.66**; 54)

Printing & Publishing (**0.49**; 49)

Business & Financial Services (**0.43**; 331)

Defense & Security (**0.43**; 105)

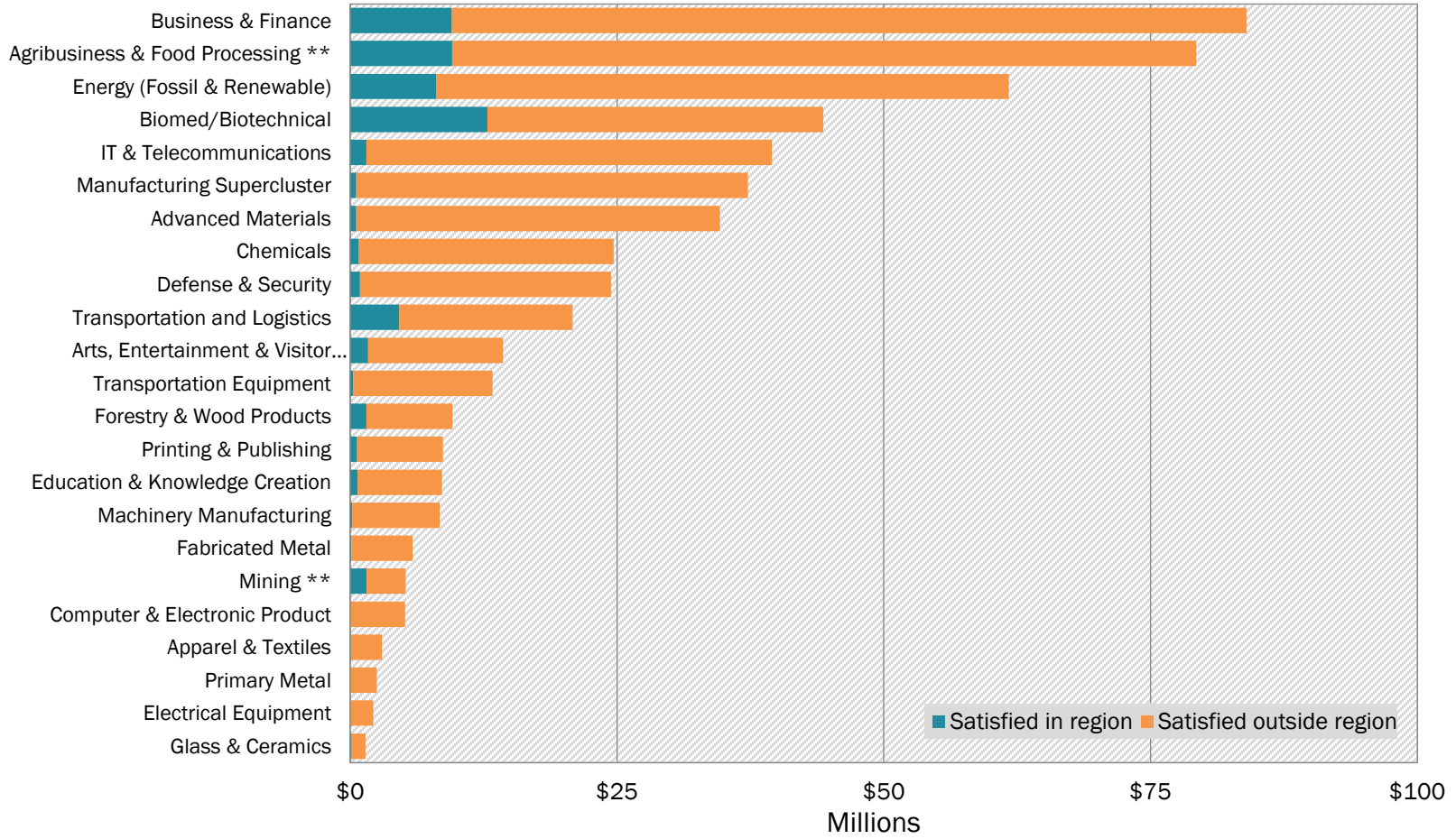
Education & Knowledge Creation (**0.43**; 57)

Fabricated Metal Product Mfg. (**0.2**; 10)

Note: Primary Metal Manufacturing, Computer & Electronic Product Manufacturing and Electrical Equipment, Appliance & Component Manufacturing sub-clusters do not exist in the region. Glass & Ceramics and Apparel & Textiles clusters have too few jobs.

** Numbers in parenthesis include location quotient and employment in 2014.*

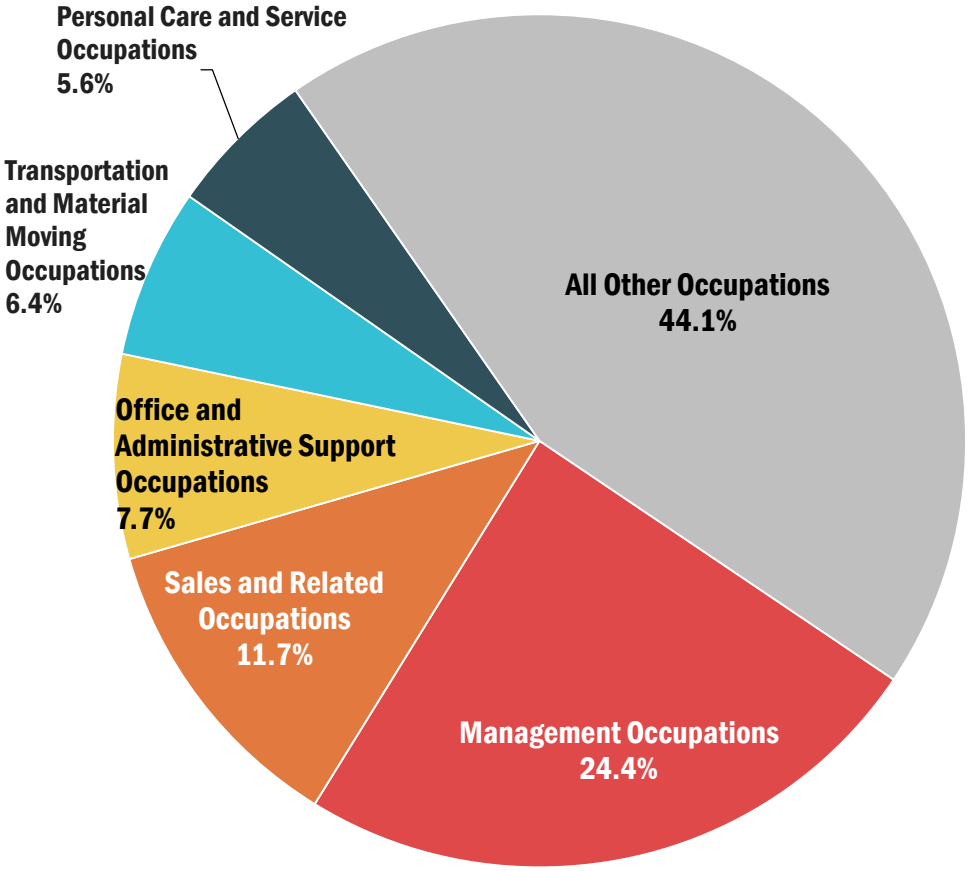
Regional requirements, 2013



Note: ** shows Star clusters

Source: EMSI 2014.4 (QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors); Industry cluster definitions by PCRD

Top five occupations in 2014

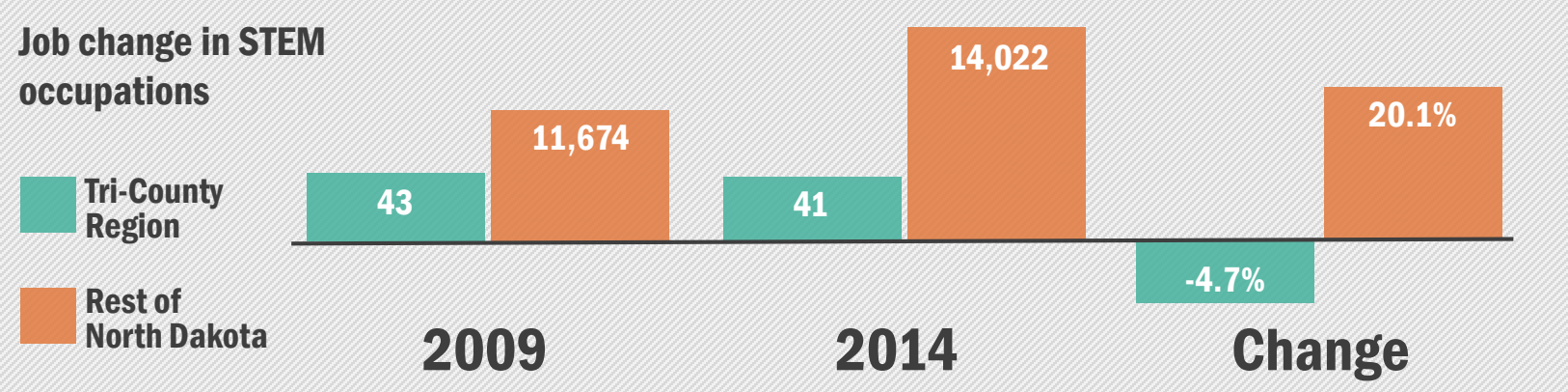


Questions:

- What are the education and skill requirements for these occupations?
- Do the emerging and star clusters align with the top occupations?
- What type salaries do these occupations typically provide?

Source: EMSI Class of Worker 2014.4 (QCEW, non-QCEW, self-employed and extended proprietors)

Science, Technology, Engineering & Math



Questions:

- How do STEM jobs compare to the state?
- What has been the trend of STEM jobs over time?
- How important are STEM jobs to the region's Star and Emerging clusters?

*Note: STEM and STEM-related occupation definitions from BLS (2010)

Source: EMSI Class of Worker 2014.4 (QCEW, non-QCEW, self-employed and extended proprietors)

Report Contributors

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PURDUE UNIVERSITY

Center for Regional Development
Advancing Collaboration : Energizing Regions

The Purdue Center for Regional Development (PCRD) seeks to pioneer new ideas and strategies that contribute to regional collaboration, innovation and prosperity.

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