



Target Industry Cluster Analysis

Tri-County Region, North Dakota



Center for Regional Development
Advancing Collaboration : Energizing Regions

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01 overview

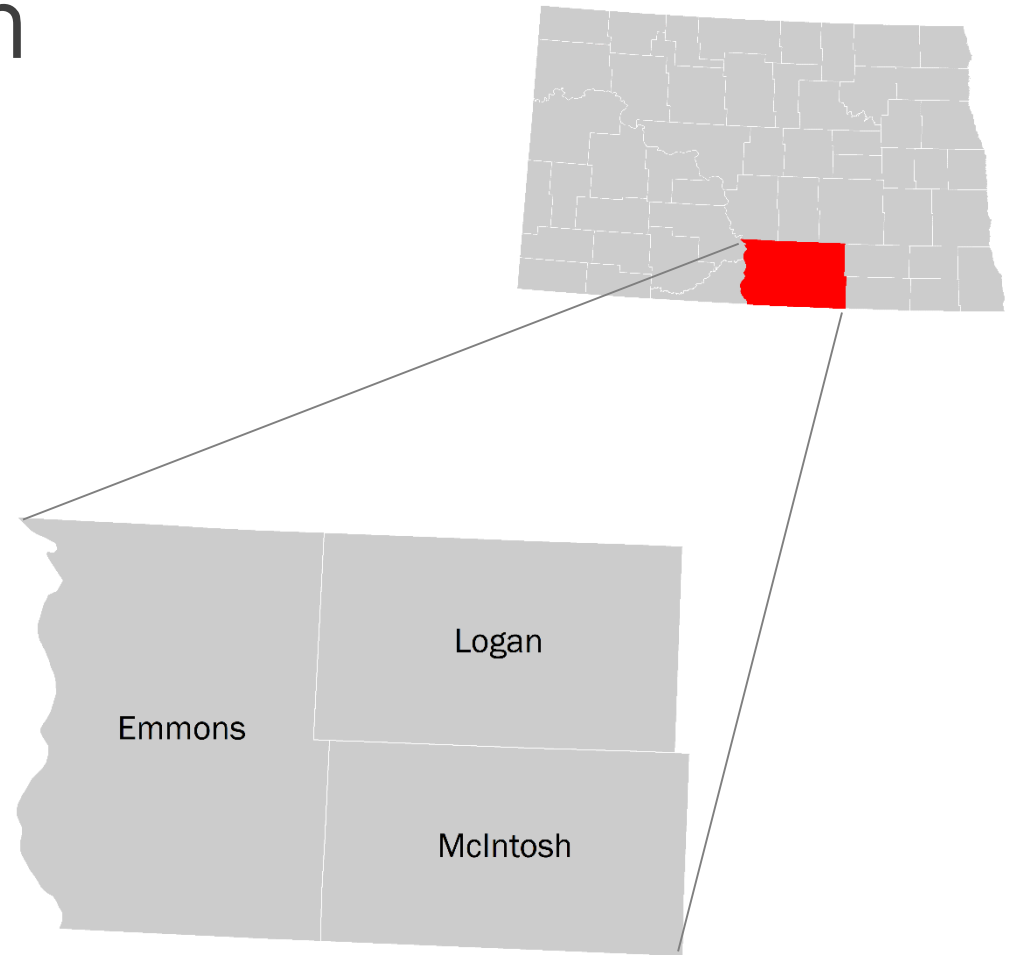
Tri-County Region, ND

Overview

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



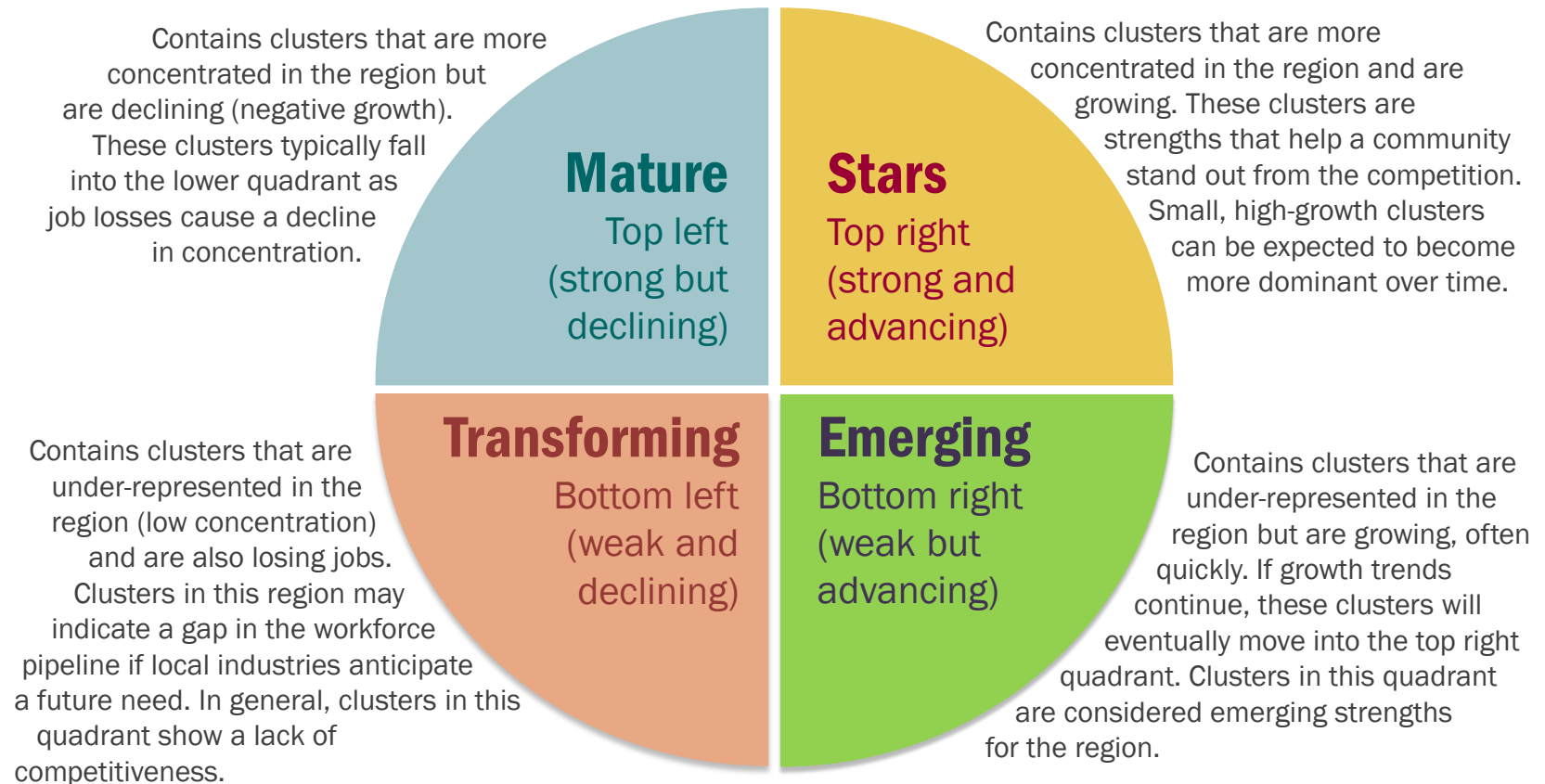
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Industry cluster analysis

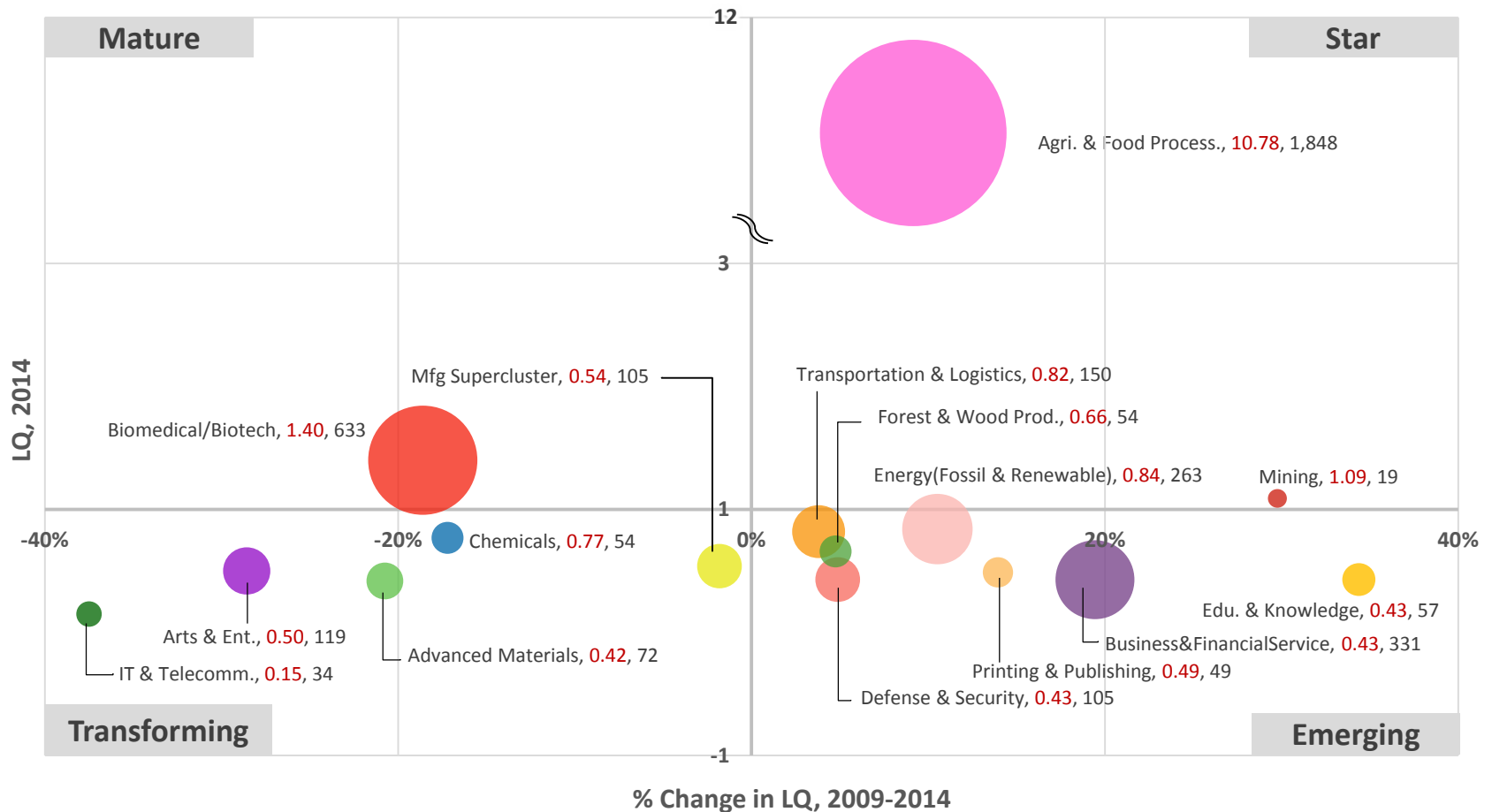
How to interpret cluster data results

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



Industry and occupation

Industry cluster bubble chart



Note: Glass & Ceramics and Apparel & Textiles clusters have too few jobs

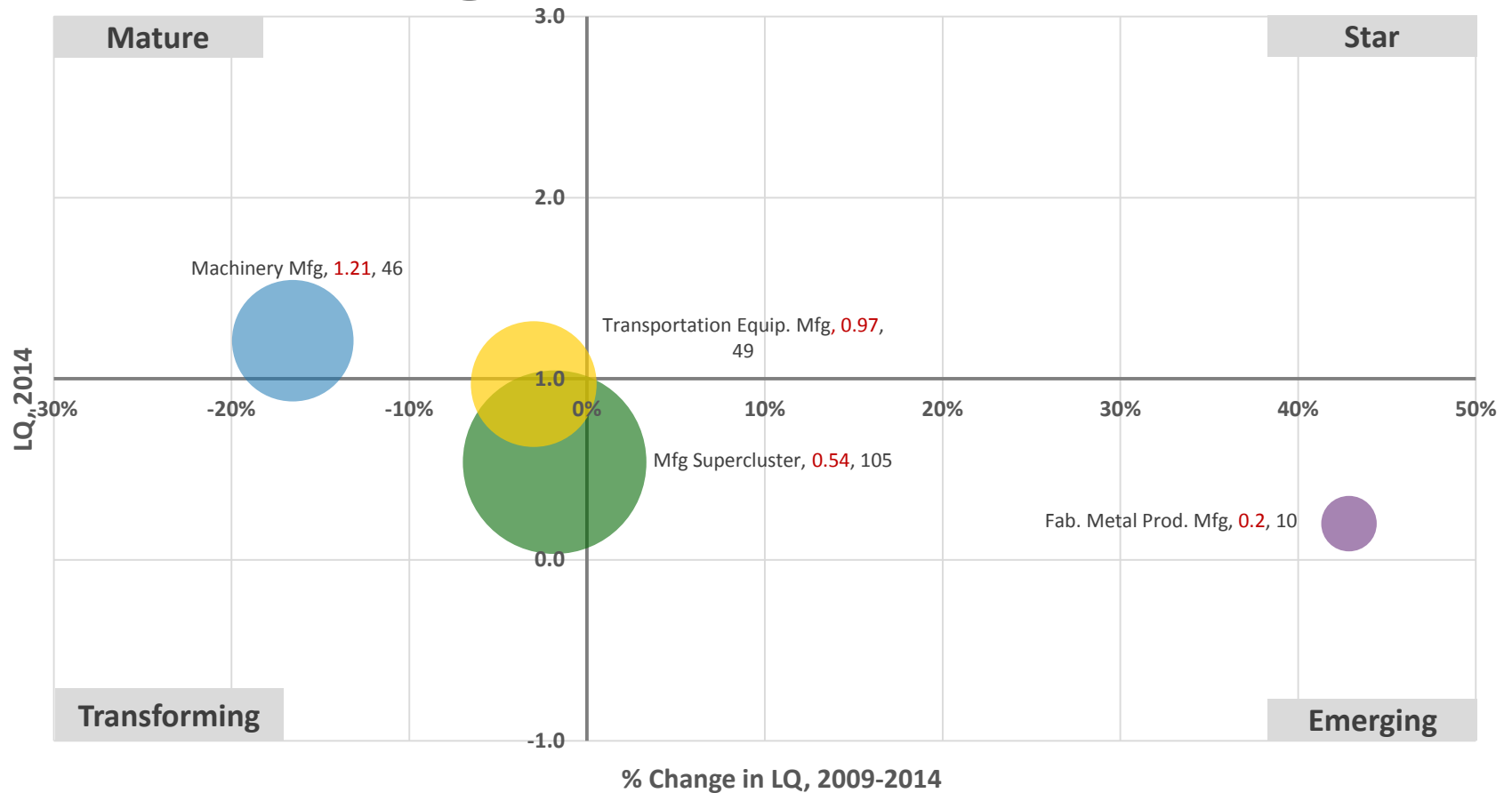
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Source: EMSI Class of Worker 2014.4 (QCEW, non-QCEW, self-employed and extended proprietors).

Note: Label includes cluster name, LQ 2014, and Employment 2014; NAICS 2012 definitions

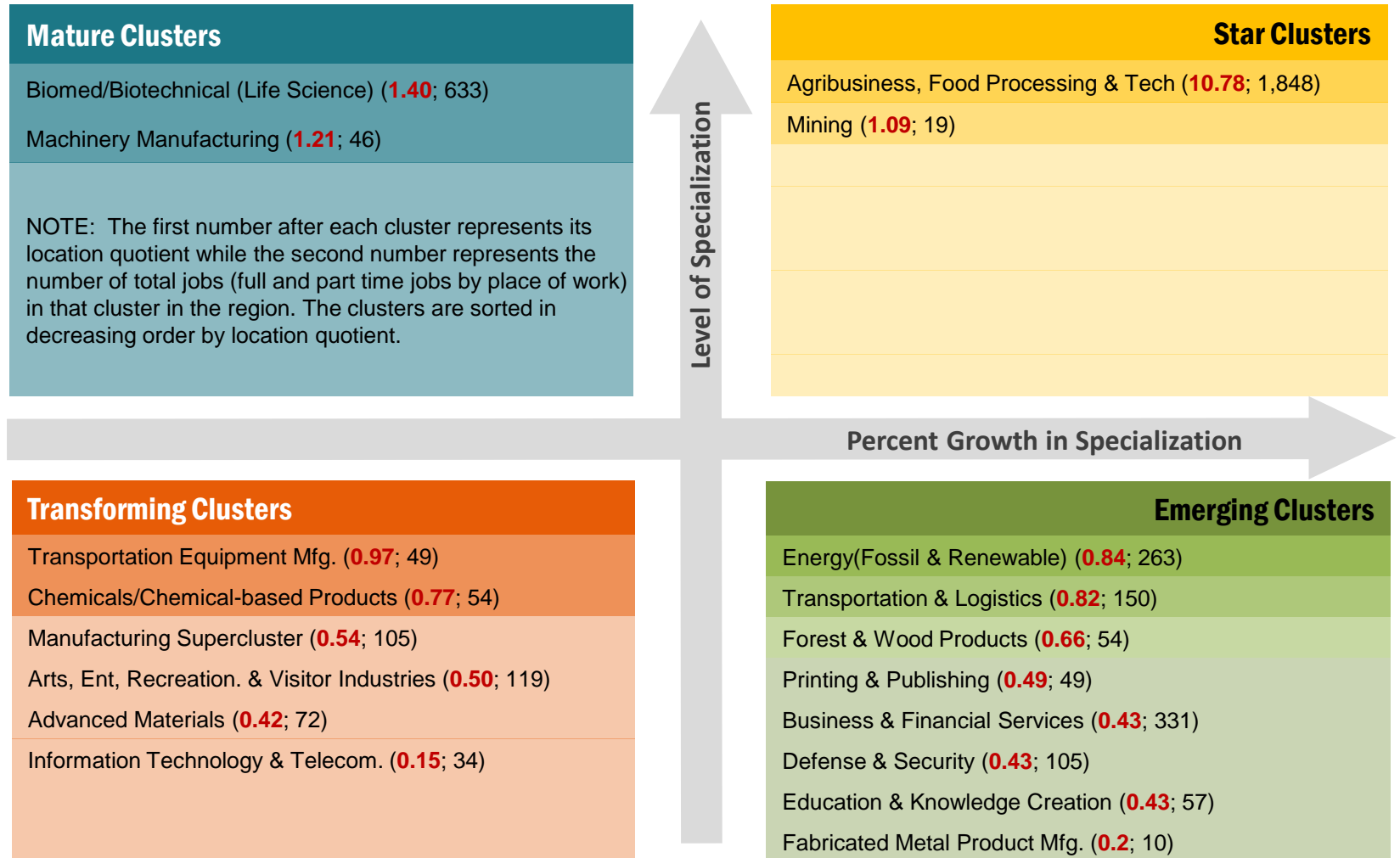
Industry and occupation

Manufacturing sub-cluster bubble chart



Note: Primary Metal Manufacturing, Computer & Electronic Product Manufacturing and Electrical Equipment, Appliance & Component Manufacturing sub-clusters do not exist in the region.

Industry cluster analysis



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.

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

Industry and occupation

Bubble chart interpretation

Mature Industries

Two industry clusters in the Tricounty Region are in the Maturing stage: Biomed/Biotechnical (Life Science) and Machinery Manufacturing. These industries are relatively concentrated, but their growth is trending downward. It is worth noting, however, that the Tricounty Region may find it worthwhile to invest in efforts to shore up the concentration of these industries.

Transforming Industries

Transforming clusters capture the mix of industries that are experiencing relative decline and limited export capability. In the Tricounty Region, Transportation Equipment Mfg., Chemicals/Chemical-based Products, Manufacturing Supercluster, Arts, Entertainment, Recreational & Visitor Industries, Advanced Materials, Information Technology & Telecommunications, are all Transforming clusters. Any amount of growth in these industries would require relatively large investments.

Star Industries

Star industry clusters are highly concentrated, exporting and still experiencing growth in the region. The most highly concentrated of the Star industry clusters in the Tricounty Region is Agribusiness, Food Processing & Technology. Its location quotient is 10.78, indicating that the cluster is 10 times more concentrated in the region compared to the U.S. The other strong cluster in the region is Mining.

Emerging Industries

Industry clusters that may be poised for future growth are classified as “Emerging.” There are eight Emerging clusters in the Tricounty Region. Top three that has the highest LQ are Energy(Fossil & Renewable), Transportation & Logistics, and Forest & Wood Products. The other clusters include Printing & Publishing, Business & Financial Services, Defense & Security, Education & Knowledge Creation, and Fabricated Metal Product manufacturing.

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**Biomedical/Biotechnical
(Life Sciences)**

**Business and Financial
Service**

**Education And Knowledge
Creation**

**Arts, Entertainment,
Recreation And Visitor
Industries**

Shift-Share Analysis by Top Industry Sectors: Tri-County Region, ND

Biomedical/Biotechnical (Life Sciences) Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Regional Performance, 2009-2014
Nursing Care Facilities (Skilled Nursing Facilities)	288	25	-24	-47
General Medical and Surgical Hospitals	223	15	-9	↑ 17
Ambulance Services	35	2	1	↑ 11
Pharmacies and Drug Stores	25	2	-3	-4
Home Health Care Services	17	1	2	↑ 6
Assisted Living Facilities for the Elderly	16	2	2	-12
Continuing Care Retirement Communities	10	1	1	-1
Research and Development in the Social Sciences and Humanities	10	2	-3	-20

Note: Upward arrow (↑) indicates regional competitiveness. EMSI estimates do not show sufficient number of jobs for Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers; Cosmetics, Beauty Supplies, and Perfume Stores; Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology); All Other Miscellaneous Ambulatory Health Care Services; and Residential Intellectual and Developmental Disability Facilities.

Top 15 Inputs by Dollars: Tri-County Region, ND

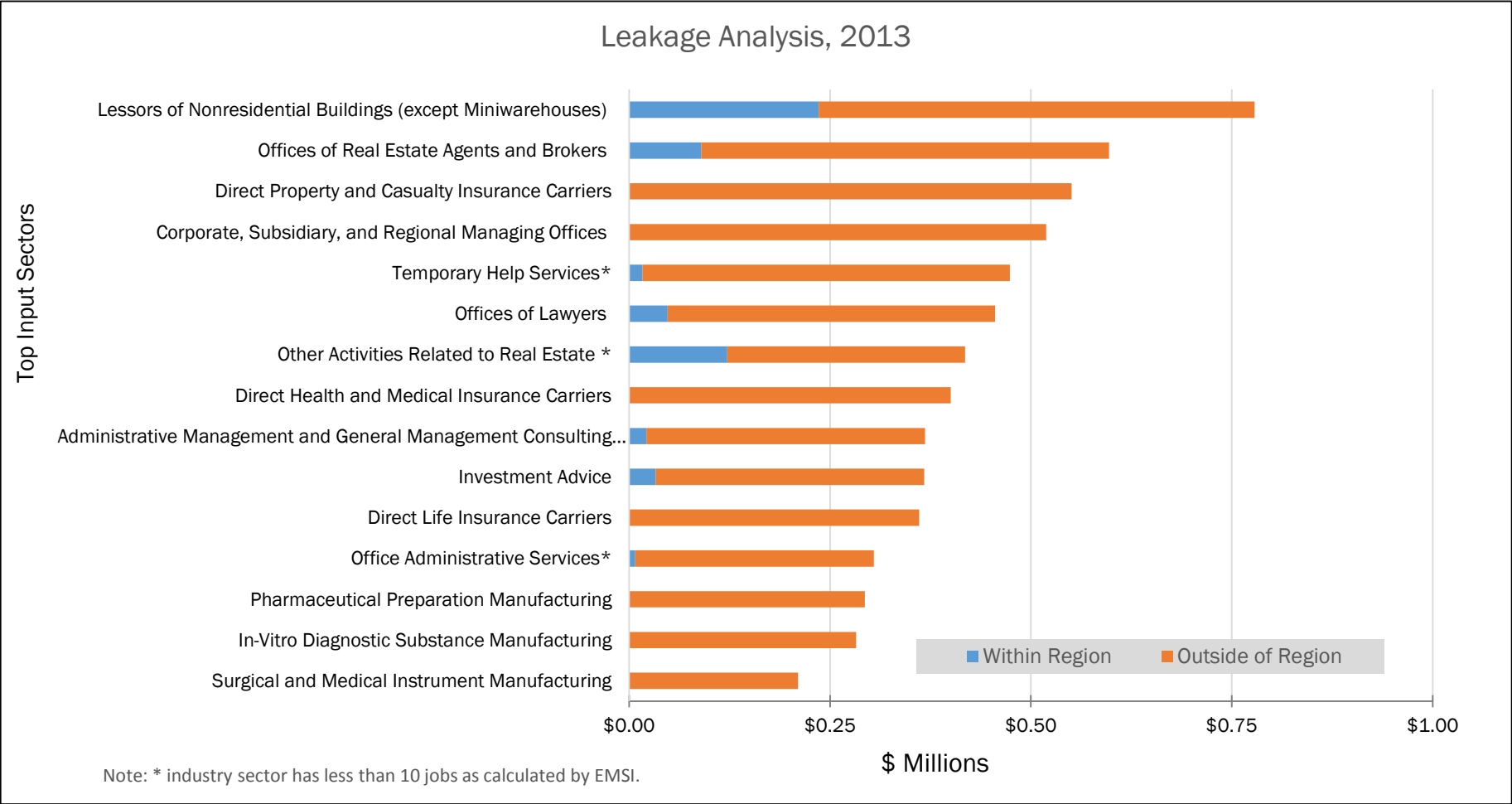
Biomedical/Biotechnical (Life Sciences) Cluster

Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Lessors of Nonresidential Buildings (except Miniwarehouses)	\$0.78	30%	70%
Offices of Real Estate Agents and Brokers	\$0.60	15%	85%
Direct Property and Casualty Insurance Carriers **	\$0.55	0%	100%
Corporate, Subsidiary, and Regional Managing Offices **	\$0.52	0%	100%
Temporary Help Services *	\$0.47	3%	97%
Offices of Lawyers	\$0.46	10%	90%
Other Activities Related to Real Estate	\$0.42	29%	71%
Direct Health and Medical Insurance Carriers **	\$0.40	0%	100%
Administrative Management and General Management Consulting Services *	\$0.37	6%	94%
Investment Advice	\$0.37	9%	91%
Direct Life Insurance Carriers **	\$0.36	0%	100%
Office Administrative Services *	\$0.30	2%	98%
Pharmaceutical Preparation Manufacturing **	\$0.29	0%	100%
In-Vitro Diagnostic Substance Manufacturing**	\$0.28	0%	100%
Surgical and Medical Instrument Manufacturing**	\$0.21	0%	100%

Note: * industry sector has less than 10 jobs as calculated by EMSI; ** industry sector is not present in the region.

Top 15 Inputs by Dollars: Tri-County Region, ND

Biomedical/Biotechnical (Life Sciences) Cluster



Top Occupations: Tri-County Region, ND

Biomedical/Biotechnical (Life Sciences) Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings, \$ 2014	Entry Level Education
Nursing Assistants	151	-12%	\$11.6	Postsecondary non-degree award
Registered Nurses	64	5%	\$22.7	Associate's degree
Licensed Practical and Licensed Vocational Nurses	47	-6%	\$16.9	Postsecondary non-degree award
Maids and Housekeeping Cleaners	37	-5%	\$9.3	Less than high school
Emergency Medical Technicians and Paramedics	21	75%	\$8.6	Postsecondary non-degree award
Home Health Aides	19	19%	\$9.4	Less than high school
Cooks, Institution and Cafeteria	16	-6%	\$9.9	Less than high school
Personal Care Aides	12	9%	\$9.3	Less than high school
Laundry and Dry-Cleaning Workers	11	-8%	\$9.9	Less than high school

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. EMSI estimates do not show sufficient number of jobs for Nurse Practitioners; Cooks, Short Order; Nurse Anesthetists; Radiologic Technologists; Food Preparation Workers; and First-Line Supervisors of Food Preparation and Serving Workers.

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Shift-Share Analysis by Top Industry Sectors: Tri-County Region, ND

Business and Financial Service Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Regional Performance, 2009-2014
Insurance Agencies and Brokerages	49	2	3	↑ 11
Miscellaneous Intermediation	44	2	6	↑ 15
Other Activities Related to Real Estate	34	1	1	↑ 16
Other Accounting Services	27	1	-1	↑ 11
Pension Funds	23	0	0	↑ 23
Investment Advice	20	2	0	-3
Lessors of Other Real Estate Property	17	1	1	↑ 5
Portfolio Management	14	1	7	-7
Miscellaneous Financial Investment Activities	14	0	2	↑ 7
Lessors of Nonresidential Buildings (except Miniwarehouses)	13	0	1	↑ 6
Offices of Lawyers	11	1	-1	-1
Title Abstract and Settlement Offices	11	1	0	1

Note: Upward arrow (↑) indicates regional competitiveness. EMSI does not show jobs for All Other Non-depository Credit Intermediation; Trust, Fiduciary, and Custody Activities ; and Claims Adjusting.

Top 15 Inputs by Dollars: Tri-County Region, ND

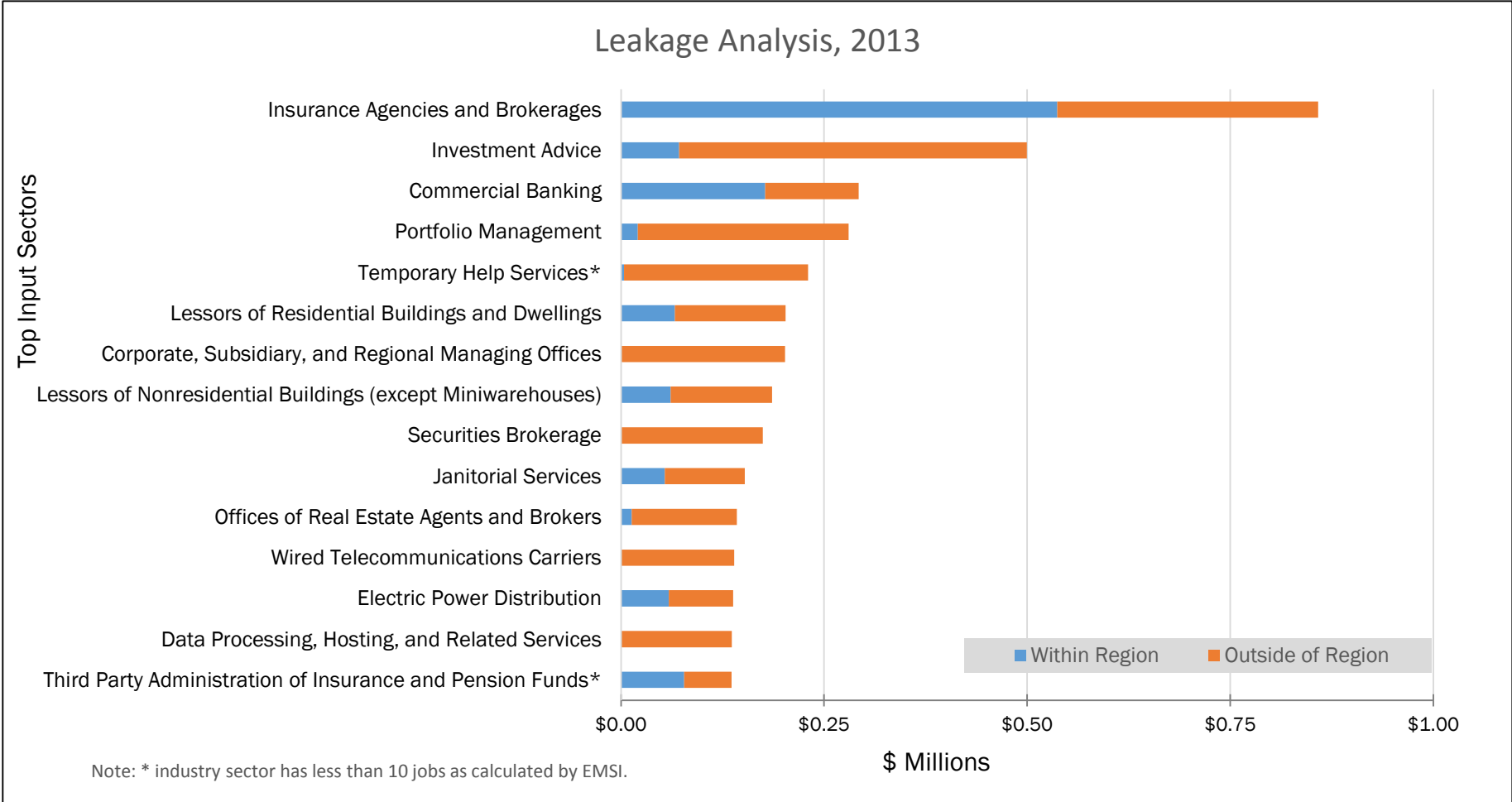
Business and Financial Service Cluster

Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Insurance Agencies and Brokerages	\$0.86	63%	37%
Investment Advice	\$0.50	14%	86%
Commercial Banking	\$0.29	61%	39%
Portfolio Management	\$0.28	7%	93%
Temporary Help Services *	\$0.23	2%	98%
Lessors of Residential Buildings and Dwellings	\$0.20	33%	67%
Corporate, Subsidiary, and Regional Managing Offices **	\$0.20	0%	100%
Lessors of Nonresidential Buildings (except Miniwarehouses)	\$0.19	33%	67%
Securities Brokerage **	\$0.17	0%	100%
Janitorial Services	\$0.15	35%	65%
Offices of Real Estate Agents and Brokers	\$0.14	9%	91%
Wired Telecommunications Carriers **	\$0.14	0%	100%
Electric Power Distribution	\$0.14	43%	57%
Data Processing, Hosting, and Related Services **	\$0.14	0%	100%
Third Party Administration of Insurance and Pension Funds *	\$0.14	57%	43%

Note: * industry sector has less than 10 jobs as calculated by EMSI; ** industry sector is not present in the region.

Top 15 Inputs by Dollars: Tri-County Region, ND

Business and Financial Service Cluster



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Top Occupations: Tri-County Region, ND

Business and Financial Service Cluster

Occupations	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings, \$ 2014	Entry Level Education
Personal Financial Advisors	41	58%	\$22.8	Bachelor's degree
Insurance Sales Agents	41	37%	\$17.6	High school diploma or equivalent
Real Estate Sales Agents	39	117%	\$11.2	High school diploma or equivalent
Securities, Commodities, and Financial Services Sales Agents	25	39%	\$18.7	Bachelor's degree
Accountants and Auditors	18	38%	\$19.4	Bachelor's degree
Property, Real Estate, and Community Association Managers	13	117%	\$13.1	High school diploma or equivalent

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. EMSI estimates do not show sufficient number of jobs for Software Developers, Applications; Web Developers; File Clerks; Computer User Support Specialists; Computer Programmers; Loan Interviewers and Clerks; Financial Specialists, All Other; Appraisers and Assessors of Real Estate; and Business Operations Specialists, All Other.

Shift-Share Analysis by Top Industry Sectors: Tri-County Region, ND

Education And Knowledge Creation Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Regional Performance, 2009-2014
Newspaper Publishers	32	2	-8	↑ 8

Note: Upward arrow (↑) indicates regional competitiveness. EMSI does not show any jobs for Book Publishers; Professional and Management Development Training; Fine Arts Schools; Sports and Recreation Instruction; Automobile Driving Schools; and Educational Support Services

Top 15 Inputs by Dollars: Tri-County Region, ND

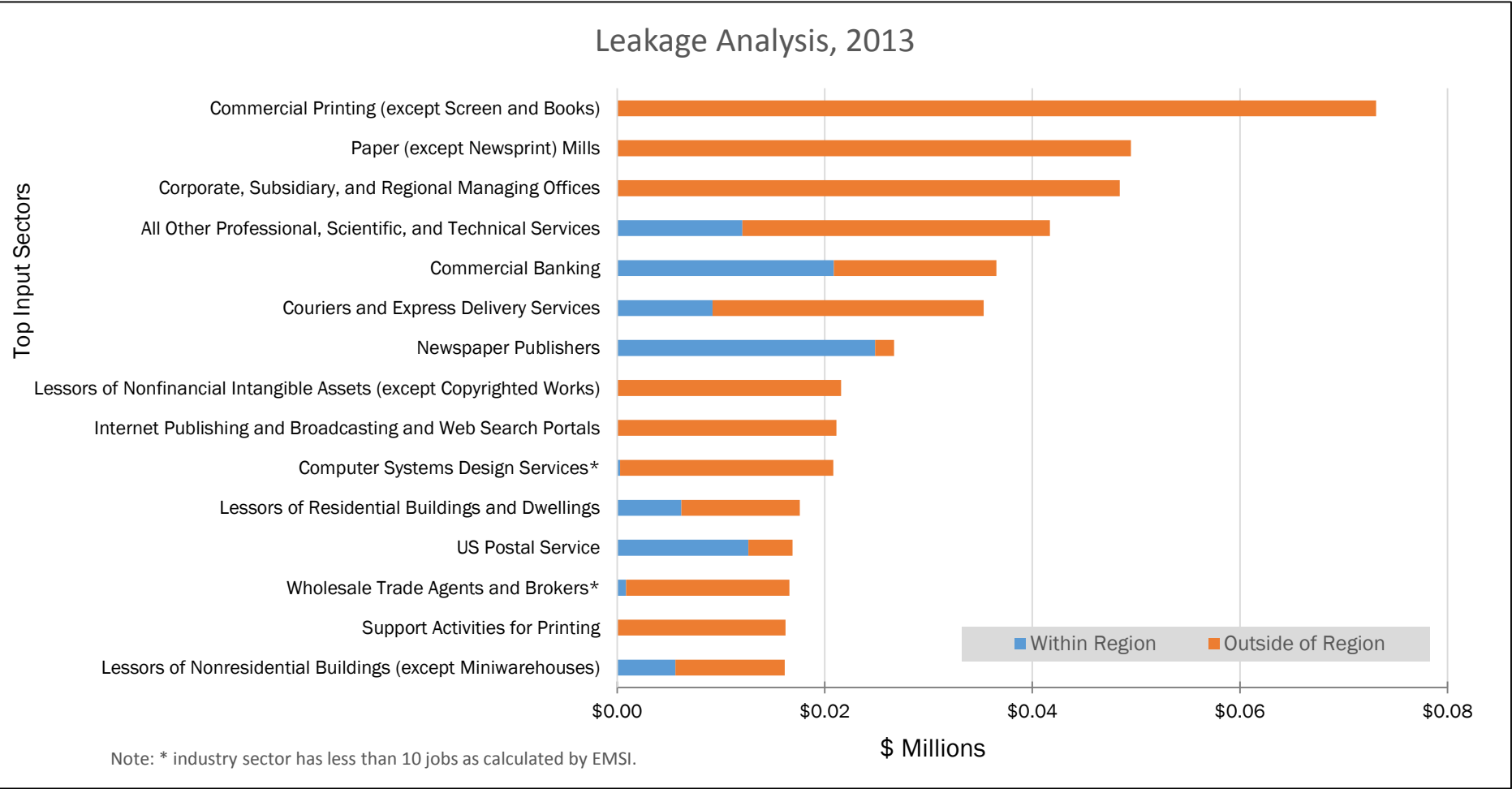
Education And Knowledge Creation Cluster

Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Commercial Printing (except Screen and Books) **	\$0.07	0%	100%
Paper (except Newsprint) Mills **	\$0.05	0%	100%
Corporate, Subsidiary, and Regional Managing Offices **	\$0.05	0%	100%
All Other Professional, Scientific, and Technical Services	\$0.04	29%	71%
Commercial Banking	\$0.04	57%	43%
Couriers and Express Delivery Services	\$0.04	26%	74%
Newspaper Publishers	\$0.03	93%	7%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) **	\$0.02	0%	100%
Internet Publishing and Broadcasting and Web Search Portals **	\$0.02	0%	100%
Computer Systems Design Services *	\$0.02	1%	99%
Lessors of Residential Buildings and Dwellings	\$0.02	35%	65%
US Postal Service	\$0.02	75%	25%
Wholesale Trade Agents and Brokers *	\$0.02	5%	95%
Support Activities for Printing **	\$0.02	0%	100%
Lessors of Nonresidential Buildings (except Miniwarehouses)	\$0.02	35%	65%

Note: * industry sector has less than 10 jobs as calculated by EMSI; ** industry sector is not present in the region.

Top 15 Inputs by Dollars: Tri-County Region, ND

Education And Knowledge Creation Cluster



Top Occupations: Tri-County Region, ND

Education And Knowledge Creation Cluster

Occupations (5-digit SOC)	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings, \$ 2014	Entry Level Education
Desktop Publishers	<10	0	\$15.9	Associate's degree
Writers and Authors	<10	Insuf. Data	\$12.9	Bachelor's degree
Graphic Designers	<10	0%	\$14.5	Bachelor's degree
Advertising Sales Agents	<10	20%	\$16.9	High school diploma or equivalent
Office Clerks, General	<10	0%	\$9.9	High school diploma or equivalent
Mail Clerks and Mail Machine Operators, Except Postal Service	<10	0%	\$10.0	High school diploma or equivalent
Editors	<10	67%	\$13.5	Bachelor's degree
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	<10	Insuf. Data	\$14.3	High school diploma or equivalent

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. EMSI does not show sufficient number of jobs for detailed 5-digit SOC occupations.

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Top Occupations: Tri-County Region, ND

Education And Knowledge Creation Cluster

Occupations (3-digit SOC)	Jobs 2014	Change, 2009-2014	% Change, 2009-2014	Median Hourly Earnings, \$ 2014
Media and Communication Workers	15	3	25%	\$13.74
Supervisors of Production Workers	<10	0	0%	\$22.08
Other Office and Administrative Support Workers	<10	1	50%	\$10.79
Entertainers and Performers, Sports and Related Workers	<10	1	Insuf. Data	\$12.43
Art and Design Workers	<10	1	50%	\$11.45
Printing Workers	<10	0	0%	\$15.00
Other Education, Training, and Library Occupations	<10	1	100%	\$13.33
Secretaries and Administrative Assistants	<10	0	0%	\$15.08
Top Executives	<10	0	0%	\$36.90
Supervisors of Office and Administrative Support Workers	<10	0	0%	\$17.39
Other Sales and Related Workers	<10	1	50%	\$10.69
Sales Representatives, Services	<10	1	20%	\$17.79
Other Personal Care and Service Workers	<10	1	Insuf. Data	\$7.83
Financial Clerks	<10	0	0%	\$12.86
Material Recording, Scheduling, Dispatching, and Distributing Workers	<10	0	0%	\$13.91

Note: SOC (Standard Occupation Classification) 3-digit occupations are included by jobs in 2014. EMSI does not show sufficient number of jobs for occupations other than Media and Communication Workers.

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Shift-Share Analysis by Top Industry Sectors: Tri-County Region, ND

Arts, Entertainment, Recreation And Visitor Industries Cluster

Industries	Jobs 2014	National Trend, 2009-2014	Industry Trend, 2009-2014	Regional Performance, 2009-2014
Golf Courses and Country Clubs	24	1	0	↑ 16
Hotels (except Casino Hotels) and Motels	16	2	0	-12
Independent Artists, Writers, and Performers	13	1	0	0
Racetracks	13	0	0	↑ 9
Bowling Centers	11	0	0	↑ 8
RV (Recreational Vehicle) Parks and Campgrounds	10	1	1	2

Note: Upward arrow (↑) indicates regional competitiveness. EMSI does not show sufficient number of jobs for Motion Picture Theaters (except Drive-Ins); Other Spectator Sports; Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures; Historical Sites; Other Gambling Industries; Fitness and Recreational Sports Centers; All Other Amusement and Recreation Industries; All Other Traveler Accommodation; and Recreational and Vacation Camps (except Campgrounds).

Top 15 Inputs by Dollars: Tri-County Region, ND

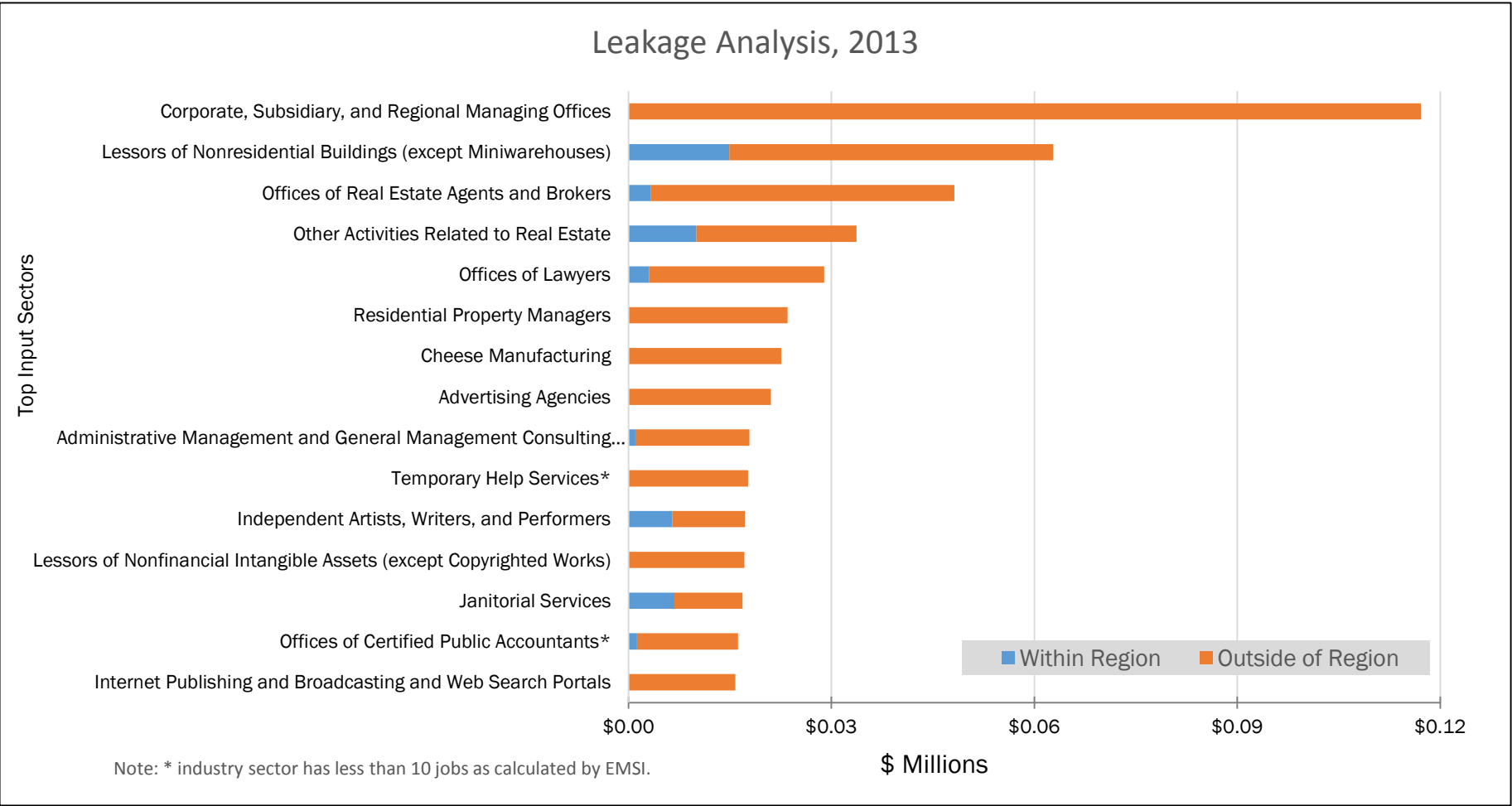
Arts, Entertainment, Recreation And Visitor Industries Cluster

Industries	Estimated Input (\$ Millions), 2013	% In-Region	% Out of Region
Corporate, Subsidiary, and Regional Managing Offices **	\$0.12	0%	100%
Lessors of Nonresidential Buildings (except Miniwarehouses)	\$0.06	24%	76%
Offices of Real Estate Agents and Brokers	\$0.05	7%	93%
Other Activities Related to Real Estate	\$0.03	30%	70%
Offices of Lawyers	\$0.03	11%	89%
Residential Property Managers **	\$0.02	0%	100%
Cheese Manufacturing **	\$0.02	0%	100%
Advertising Agencies **	\$0.02	0%	100%
Administrative Management and General Management Consulting Services *	\$0.02	6%	94%
Temporary Help Services *	\$0.02	1%	99%
Independent Artists, Writers, and Performers	\$0.02	38%	62%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) **	\$0.02	0%	100%
Janitorial Services	\$0.02	40%	60%
Offices of Certified Public Accountants*	\$0.02	8%	92%
Internet Publishing and Broadcasting and Web Search Portals**	\$0.02	0%	100%

Note: * industry sector has less than 10 jobs as calculated by EMSI; ** industry sector is not present in the region.

Top 15 Inputs by Dollars: Tri-County Region, ND

Arts, Entertainment, Recreation And Visitor Industries Cluster



Top Occupations: Tri-County Region, ND

Arts, Entertainment, Recreation And Visitor Industries Cluster

Occupations (5-digit SOC)	Jobs 2014	% Change, 2009-2014	Median Hourly Earnings, \$ 2014	Entry Level Education
Security Guards	<10	-50%	\$13.1	High school diploma or equivalent
Chefs and Head Cooks	<10	0%	\$8.9	High school diploma or equivalent
First-Line Supervisors of Food Preparation and Serving Workers	<10	Insuf. data	\$9.5	High school diploma or equivalent
Massage Therapists	<10	0%	\$12.6	Postsecondary non-degree award
Photographers	<10	0%	\$10.1	High school diploma or equivalent
Writers and Authors	<10	25%	\$12.9	Bachelor's degree
Audio and Video Equipment Technicians	<10	0%	\$14.1	Postsecondary non-degree award
Cooks, Restaurant	<10	100%	\$8.5	Less than high school
Cooks, Short Order	<10	0%	\$7.9	Less than high school
Waiters and Waitresses	<10	33%	\$8.0	Less than high school
Dining Room and Cafeteria Attendants and Bartender Helpers	<10	0%	\$8.6	Less than high school
Dishwashers	<10	0%	\$8.1	Less than high school
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	<10	0%	\$9.4	Less than high school
Combined Food Preparation and Serving Workers, Including Fast Food	<10	0%	\$9.2	Less than high school
Food Preparation Workers	<10	0%	\$10.0	Less than high school

Note: SOC (Standard Occupation Classification) 5-digit occupations are included by jobs in 2014. EMSI does not show sufficient number of jobs for detailed 5-digit SOC occupations.

section 03

Top Occupations: Tri-County Region, ND

Arts, Entertainment, Recreation And Visitor Industries Cluster

Occupations (3-digit SOC)	Jobs 2014	Change, 2009-2014	% Change, 2009-2014	Median Hourly Earnings, \$ 2014
Entertainers and Performers, Sports and Related Workers	15	4	36%	\$12.43
Other Personal Care and Service Workers	11	4	57%	\$7.83
Other Management Occupations	10	(4)	(29%)	\$12.72
Grounds Maintenance Workers	<10	1	100%	\$10.08
Supervisors of Personal Care and Service Workers	<10	2	50%	\$11.18
Top Executives	<10	(1)	(33%)	\$36.90
Animal Care and Service Workers	<10	0	0%	\$8.68
Building Cleaning and Pest Control Workers	<10	(2)	(22%)	\$10.01
Other Food Preparation and Serving Related Workers	<10	1	100%	\$8.31
Supervisors of Food Preparation and Serving Workers	<10	0	0%	\$9.41
Other Protective Service Workers	<10	(1)	(50%)	\$12.71
Cooks and Food Preparation Workers	<10	1	50%	\$9.12
Food and Beverage Serving Workers	<10	2	33%	\$8.36
Personal Appearance Workers	<10	0	0%	\$9.57
Supervisors of Building and Grounds Cleaning and Maintenance Workers	<10	0	0%	\$13.32

Note: SOC (Standard Occupation Classification) 3-digit occupations are included by jobs in 2014. EMSI does not show sufficient number of jobs for occupations other than Entertainers and Performers, Sports and Related Workers; Other Personal Care and Service Workers; and Other Management Occupations.

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Report Contributors

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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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