Workforce Trends

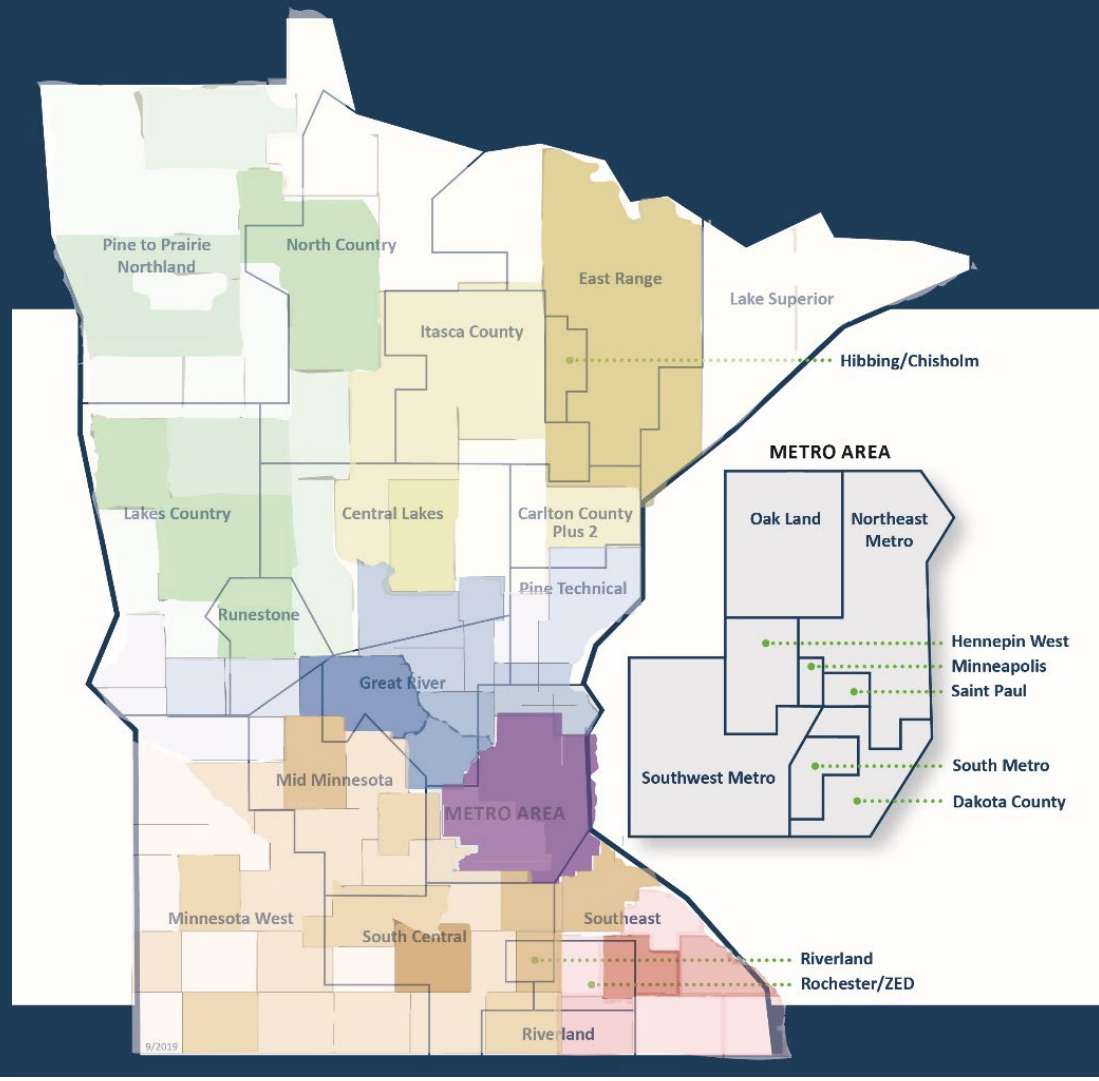
For Career & Technical Education

RealTime Talent

Erin Olson
Senior Director of Strategic Research

Julia Diaz
Research Analyst

December 6th, 11th, 13th and 15th 2023



The contents of this series were made possible through the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) Federal grant from the United States Department of Education administered through Minnesota State Colleges and Universities.

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Who's in the Virtual "Room"

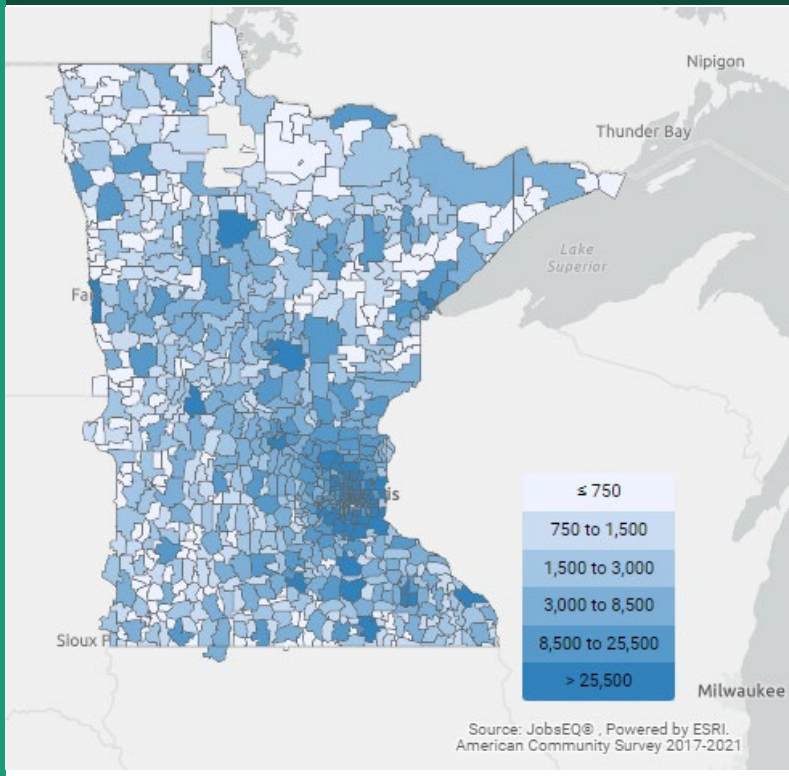
In the chat field,
please share your name, your role, and the organization that you represent.

Workforce Trends

For Career & Technical Education

Statewide

Minnesota



RealTime Talent

Erin Olson, Senior Director of Strategic Research

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December 6, 2023

Access the full report here:
http://www.realtimetalent.org

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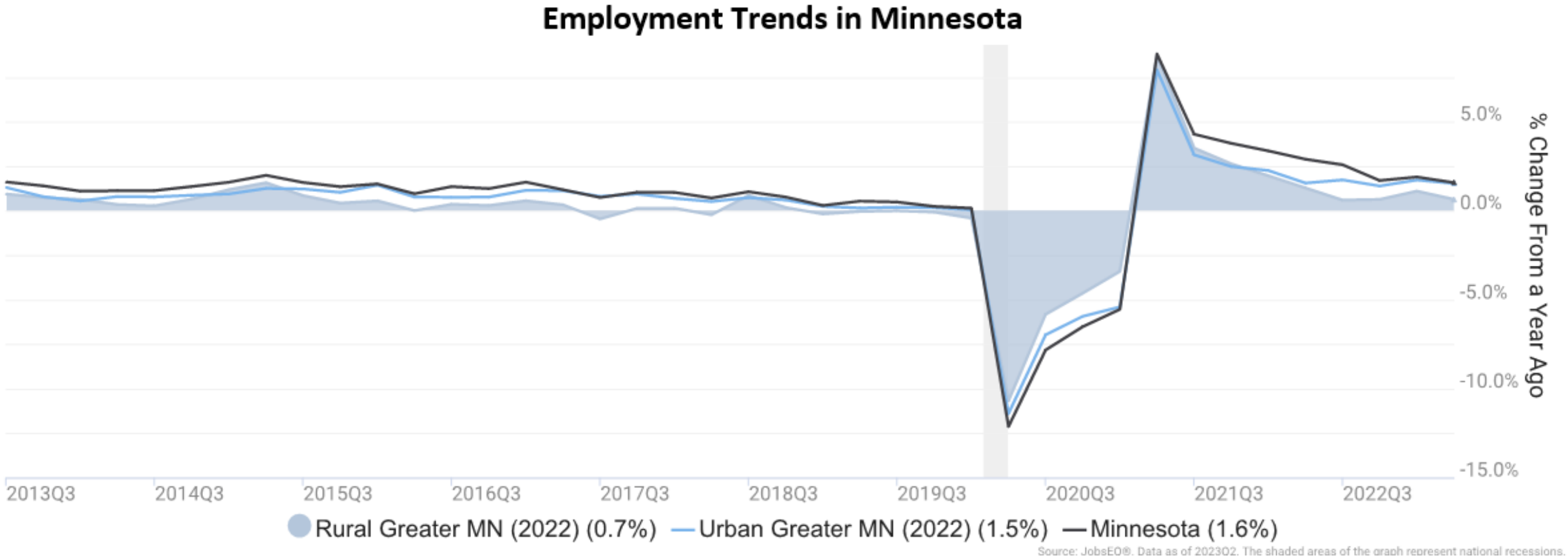
Community Profile

Minnesota



Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2023Q1 with preliminary estimates updated to 2023Q2.

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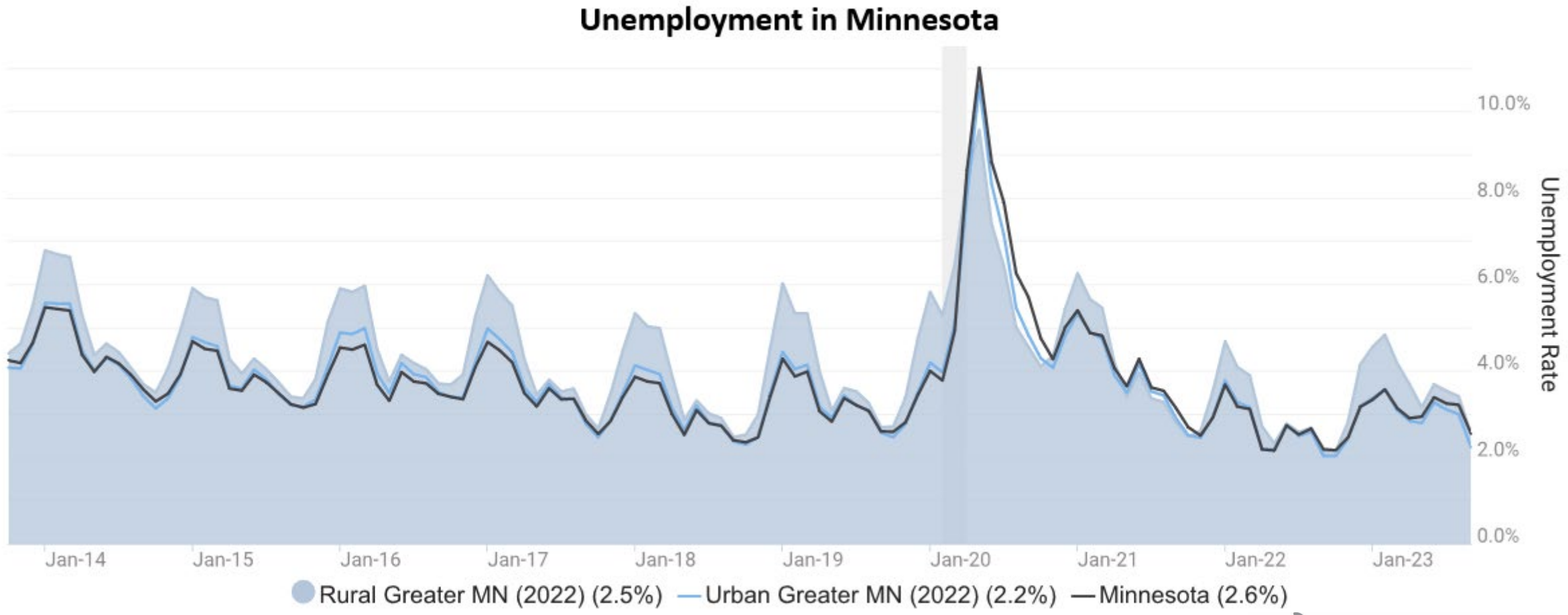
Community Profile

Minnesota



Unemployment rate data are from the Local Area Unemployment Statistics, provided by the Bureau of Labor Statistics and updated through September 2023.

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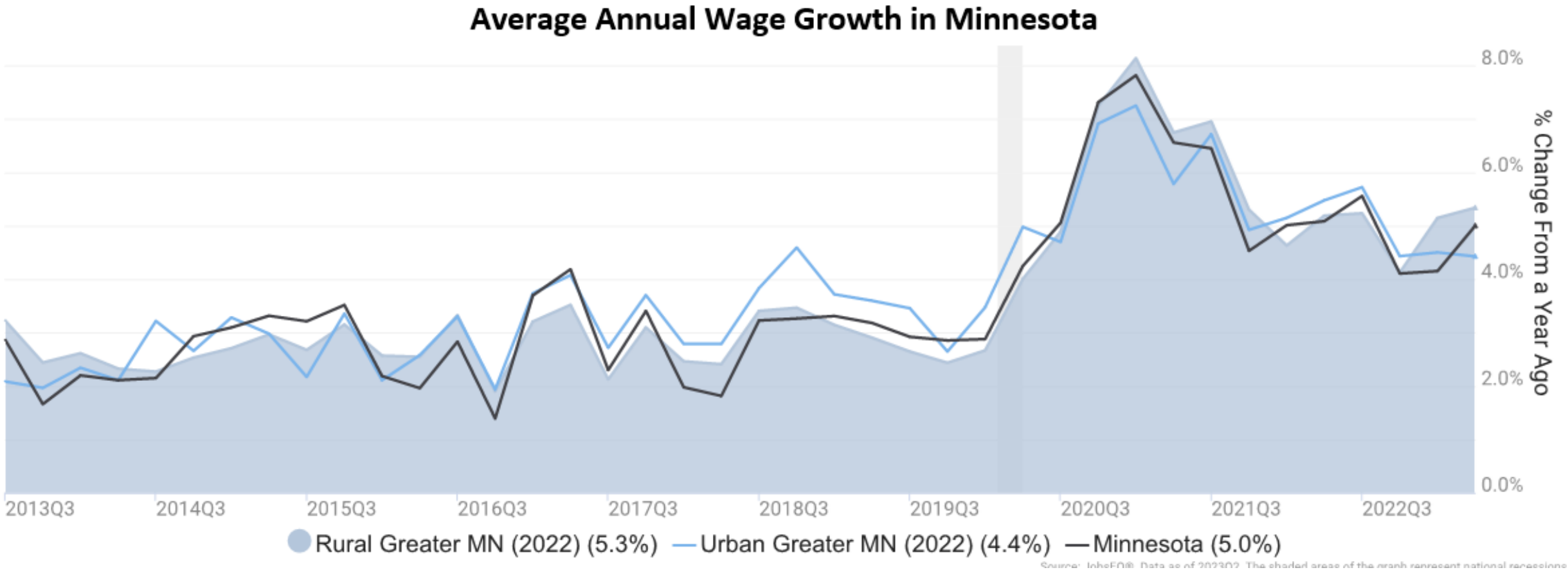
Community Profile

Minnesota



Annual average wages per worker data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2023Q1 with preliminary estimates updated to 2023Q2.

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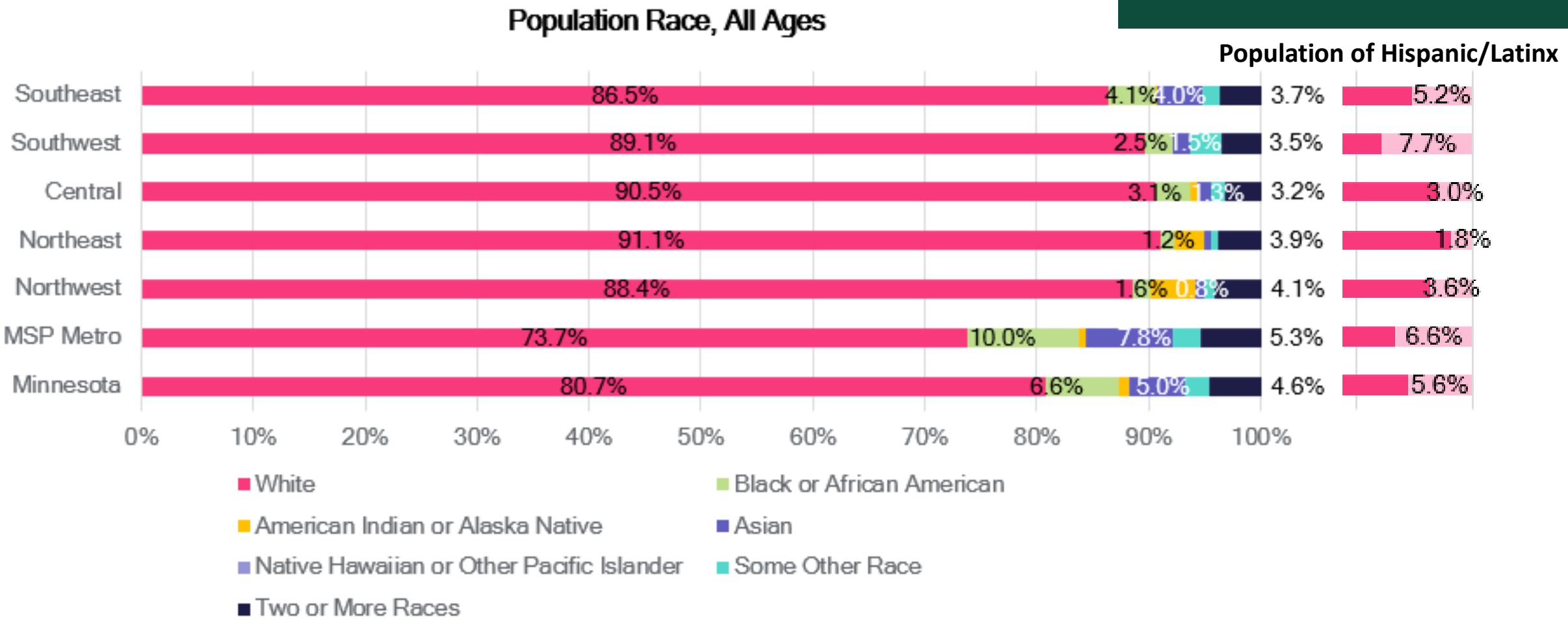
Population Demographics

Minnesota



American Community Survey 2017-2021.

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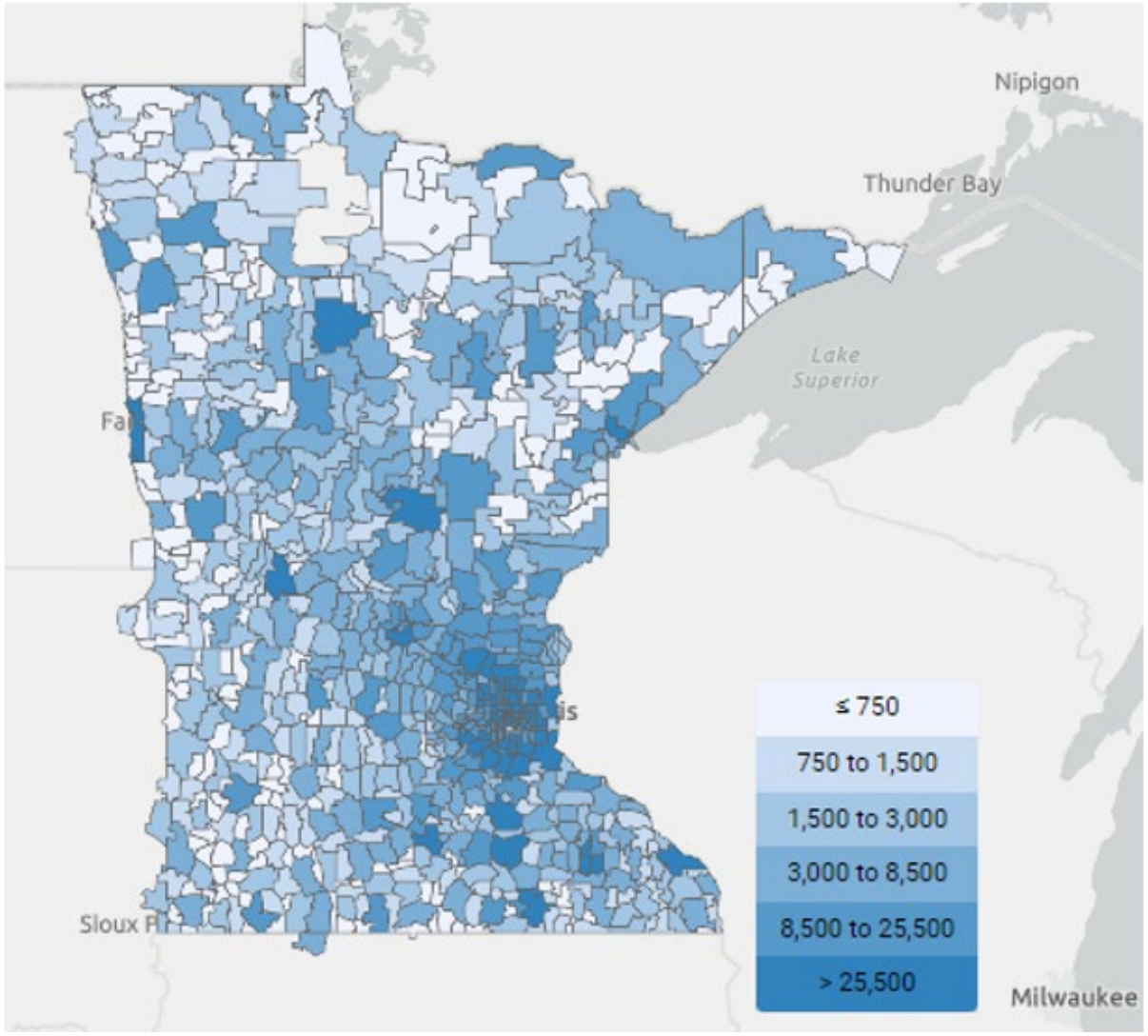
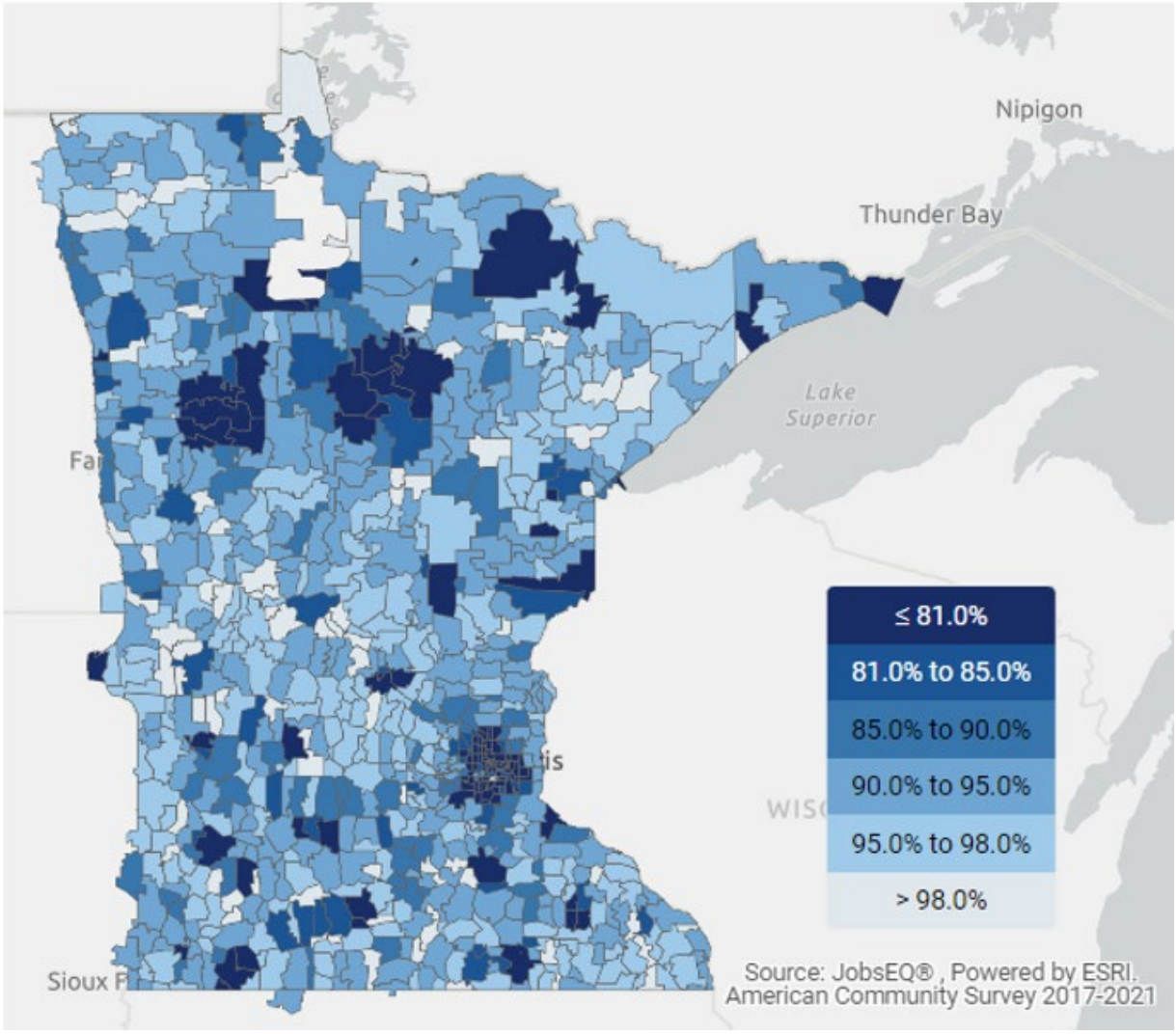
Population Demographics

Minnesota

Population Estimates, Minnesota Zip Codes

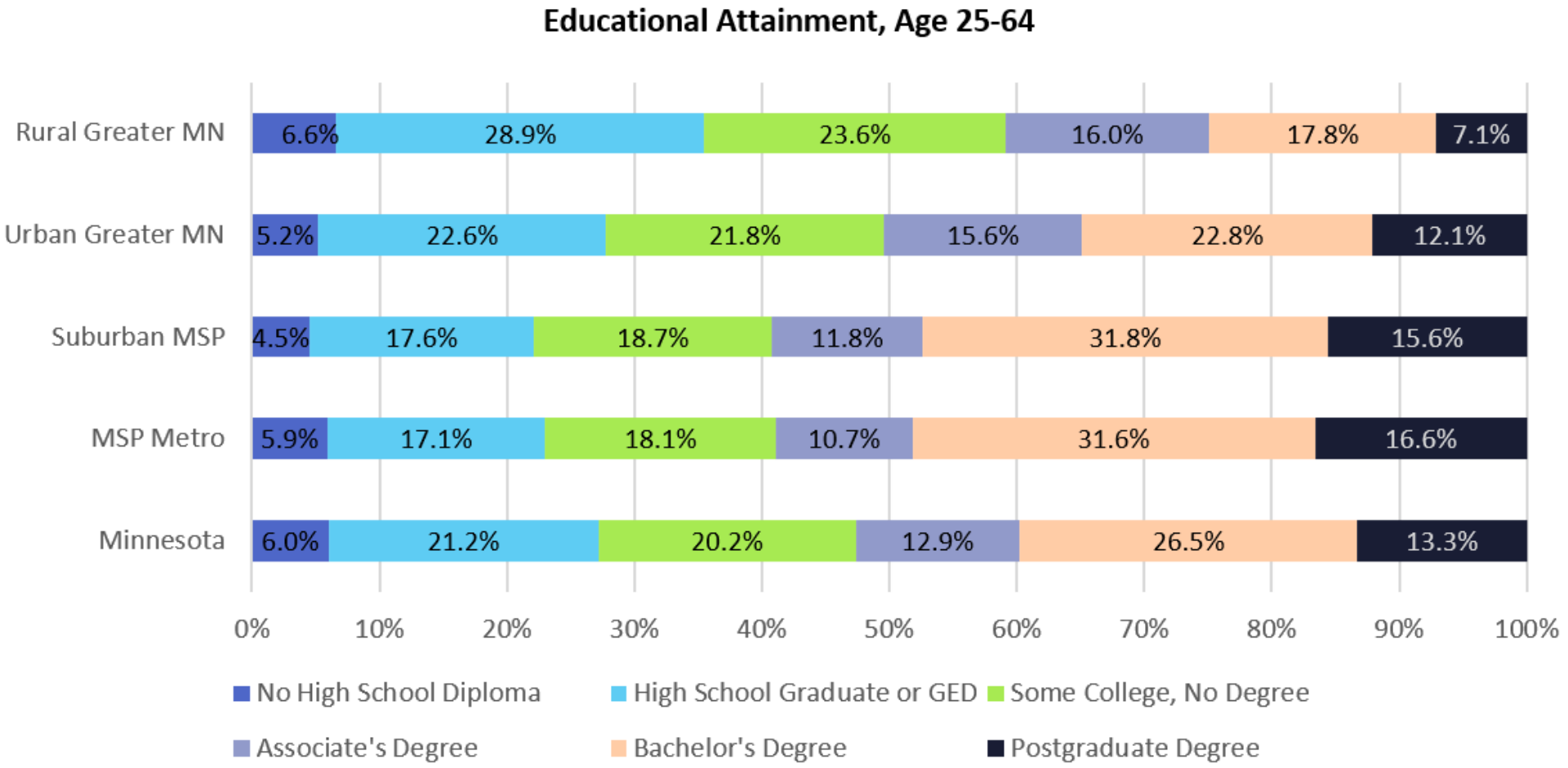


Population Demographic Estimates by Race, Minnesota Zip Codes
Illustrating Percent of Population that is White by Race



Educational Attainment

Minnesota



91 Postsecondary Institutions

107,337 postsecondary awards conferred (SY2021-22)

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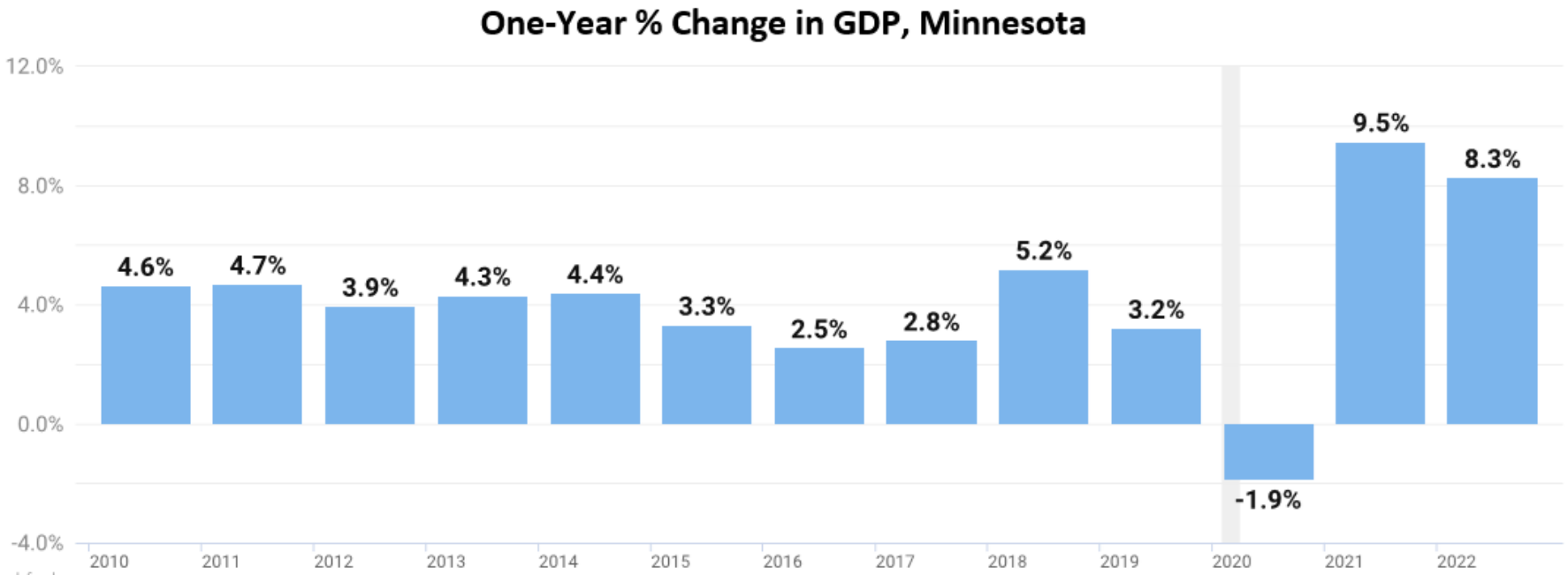
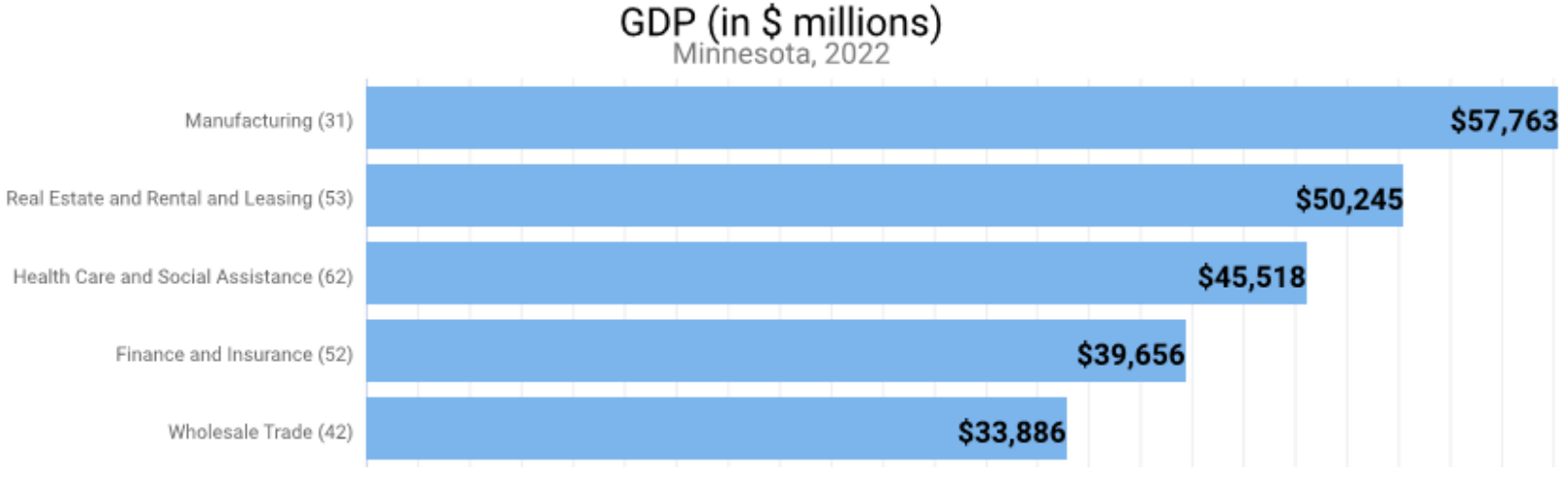
American Community Survey 2017-2021.

Community Profile

Minnesota





- Gross Regional Product (GRP) expanded by 8.3%
- Manufacturing contributes most to GRP

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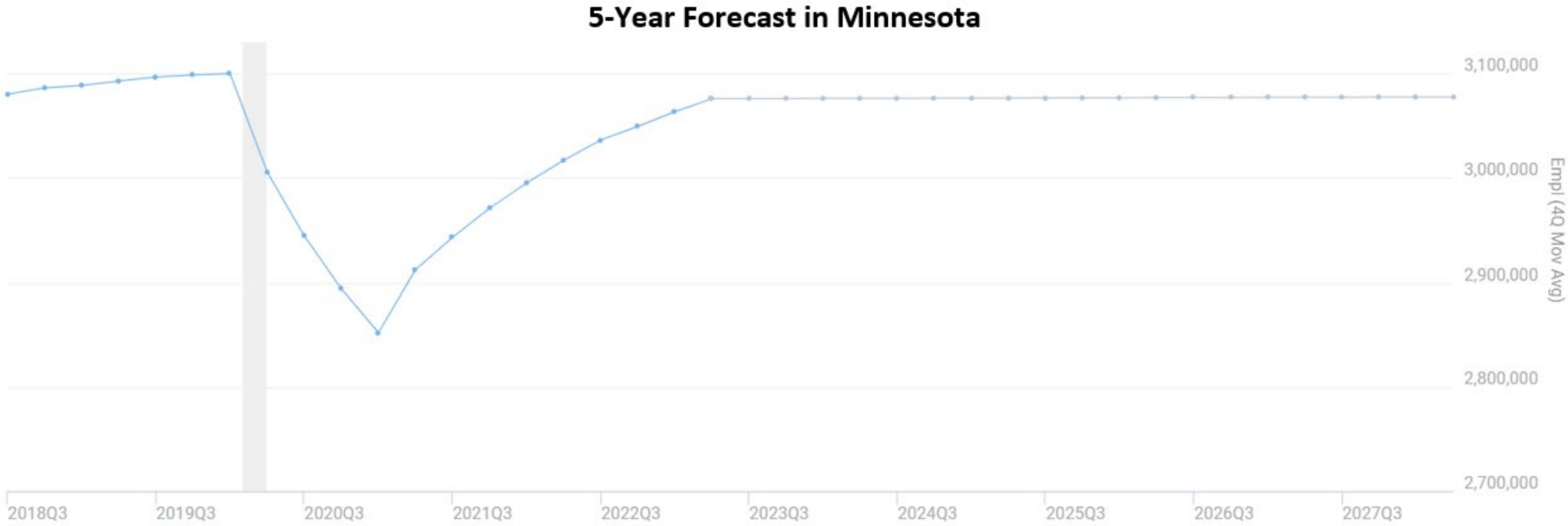
Labor Market

Workforce Forecast

Minnesota



Updated Forecast: Flat employment through 2028

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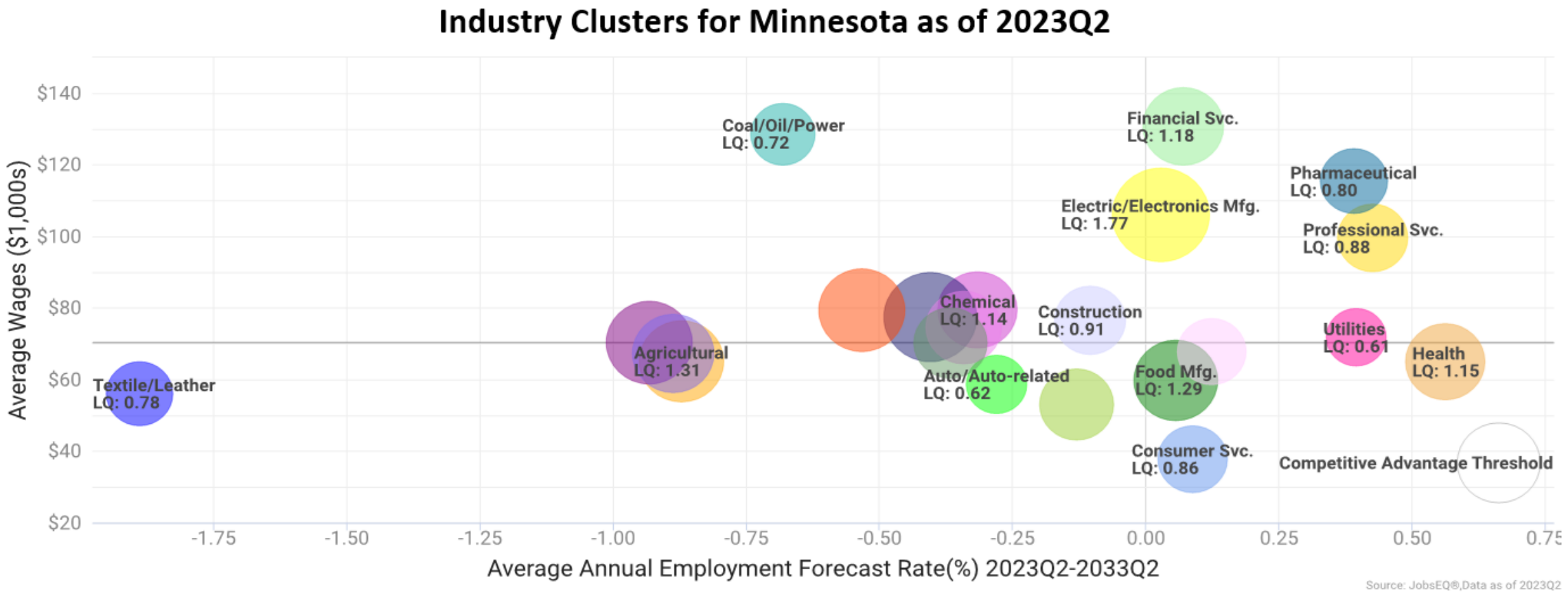
Polling Question

When you think about the current economic situation in your community, what occupation OR career field(s) do you believe are most ripe for creation of a career pathway?

Labor Market

Workforce Forecast

Minnesota



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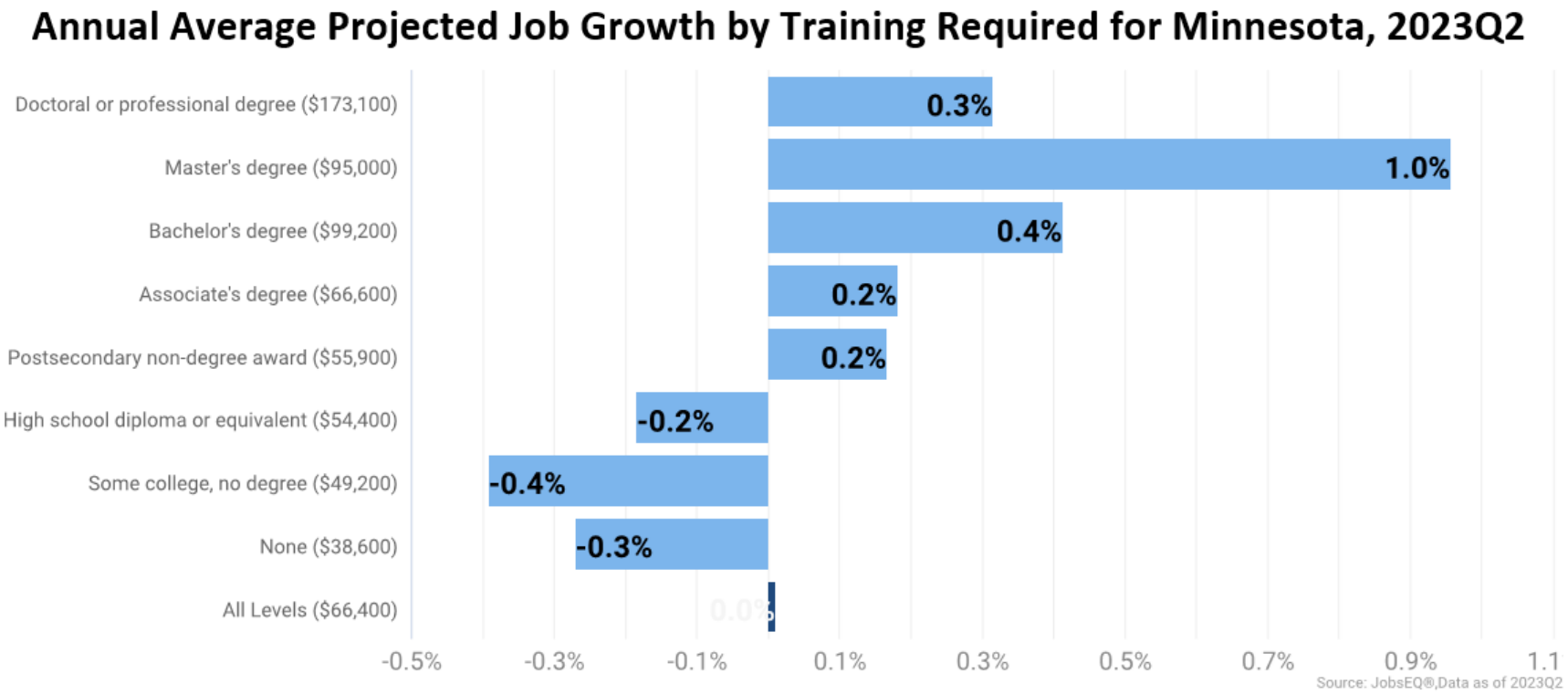
Quantifying Talent Shortages

Forecast

Minnesota



Average unemployment rate **2.9%** across all positions

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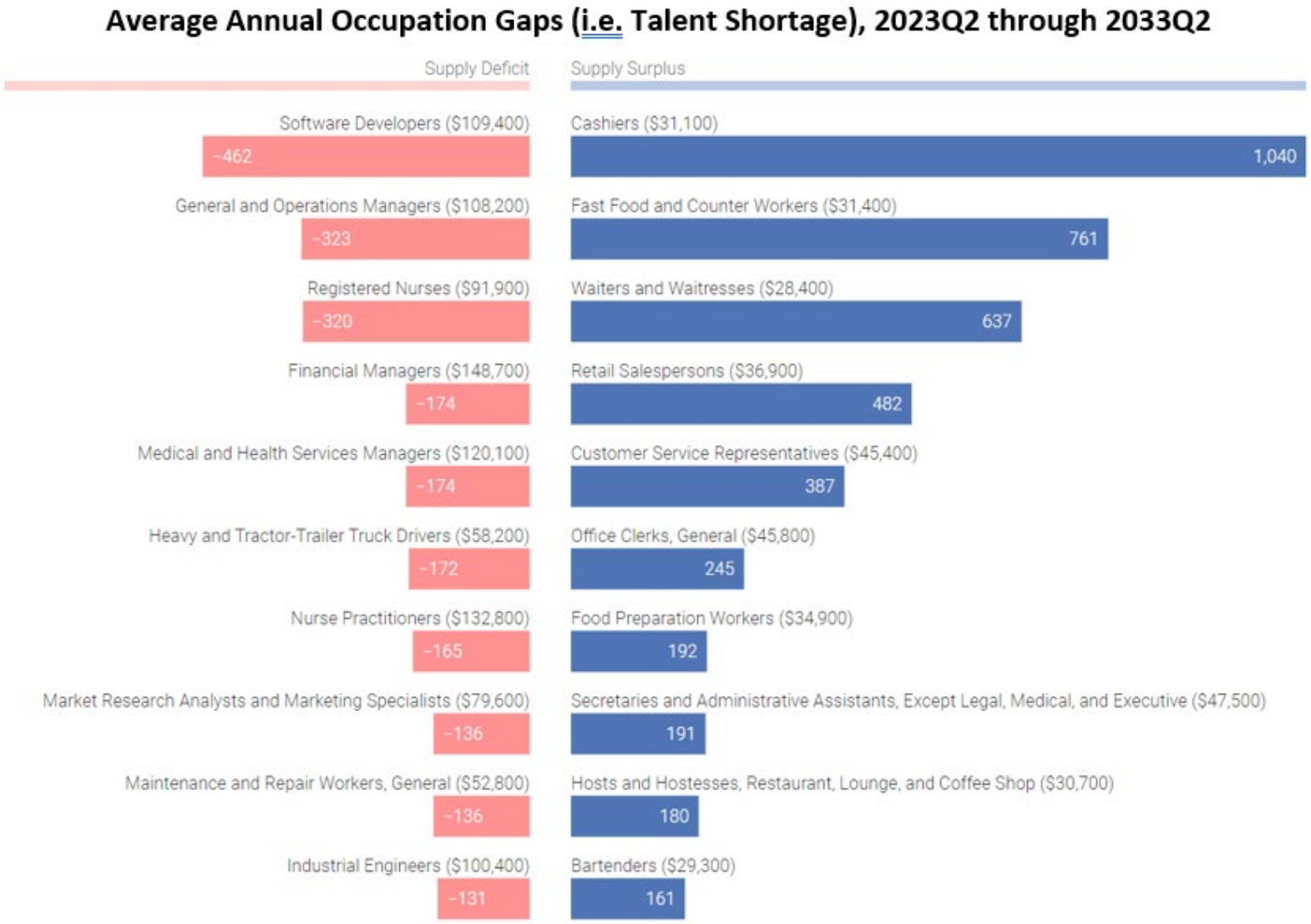
Talent Shortage

Occupation Gaps

Minnesota



New in 2023

1) Restaurant Cooks and Maintenance and Repair Workers have dropped considerably, ranking 13th and 9th now

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Job Posting Trends in Minnesota

Minnesota

SOURCE: Gartner TalentNeuron Plan accessed 11/28/2023

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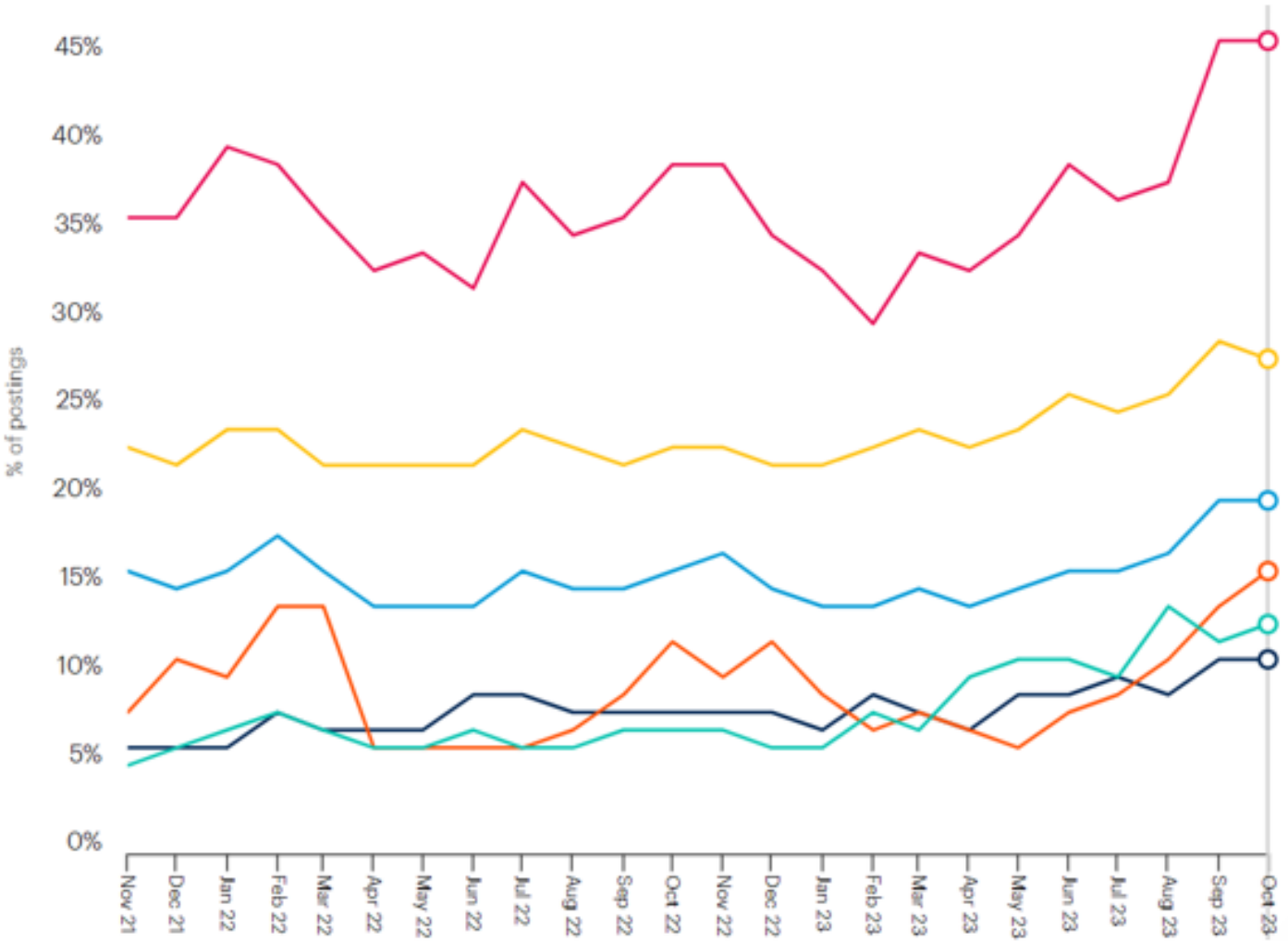
Job Posting Trends in Minnesota

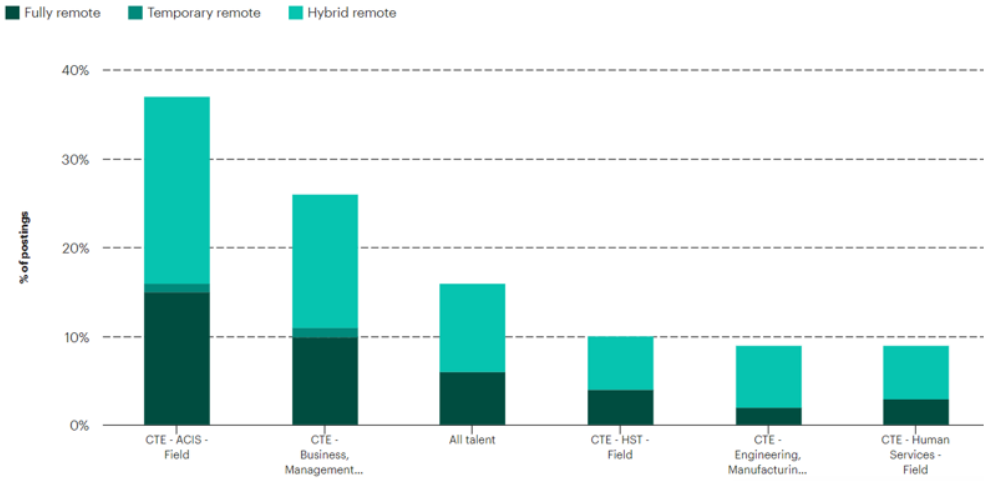
Minnesota

Total Remote Job Postings Advertised Monthly in Minnesota, October 2022-2023



SOURCE: Gartner TalentNeuron Plan accessed 11/22/2023

Remote Job Postings by Career Field Advertised in Minnesota, October 2022-2023



- CTE - Engineering, Manufacturing,
- CTE - Human Services - Field
- CTE - Business, Management, and
- CTE - HST - Field
- CTE - ACIS - Field
- All talent

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Career Fields

Minnesota

CTE Field Employment and Wages in Minnesota, 2023Q2[1]

CTE Field (occupation overlap exists, will not sum)	Current 2023Q2 Estimates							5-Year History	
	2023Q2 Empl	2023 Avg Entry-Level Wages	2023 Avg Ann Wages	LQ	Unempl	Unempl Rate	Online Job Ads 10/6/2023-11/6/2023[3]	Empl Change	Ann %
Health Science Technology	298,189	$39,300	$89,700	1.06	5,210	1.7%	26,147	-815	-0.1%
Human Services	483,093	$41,700	$59,300	1.01	11,185	2.3%	20,281	12,948	0.5%
Arts, Communications, and Information Systems	145,621	$61,100	$91,700	1.02	2,855	2.1%	8,632	-616	-0.1%
Business, Management, and Administration	1,334,001	$41,400	$64,000	0.98	41,435	3.1%	62,832	-15,455	-0.2%
Engineering, Manufacturing, and Technology	750,568	$44,200	$61,600	1.00	25,276	3.4%	28,559	16,703	0.5%
Agriculture, Food, and Natural Resources*	159,827	$41,500	$60,900	1.00	4,512	2.8%	5,175	2,019	0.3%
Total - All Occupations	**3,075,767**	**$32,800**	**$66,100**	**1.00**	**87,730**	**2.9%**	**148,113**	**11,603**	**0.1%**

Data as of 2023Q2 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Data based on a four-quarter moving average unless noted otherwise.
2. Wage data represent the average for all Covered Employment
3. Data represent found online ads active within the last thirty days in the selected region. Due to alternative county-assignment algorithms, ad counts in this analytic may not match that shown in RTI (nor in the popup window ad list). Ad counts for ZCTA-based regions are estimates.

Career Fields

Minnesota

CTE Field Baseline Employment Forecast for Minnesota, 2028Q2

CTE Field (occupation overlap exists, will not sum)	Current 2023Q2 Empl (Place of Work)	5-Year Growth 2028Q2				
		Total Demand	Exits	Transfers	Empl Change	Ann % Change
Health Science Technology	298,189	136,009	58,767	68,996	8,245	0.5%
Human Services	483,093	272,635	123,272	140,744	8,620	0.4%
Arts, Communications, and Information Systems	145,621	65,412	20,997	39,738	4,677	0.6%
Business, Management, and Administration	1,334,001	828,092	356,097	490,256	-18,262	-0.3%
Engineering, Manufacturing, and Technology	750,568	404,156	151,696	254,250	-1,790	0.0%
Agriculture, Food, and Natural Resources*	159,827	93,377	36,232	58,385	-1,239	-0.2%
Total - All Occupations	3,075,767	1,746,576	727,900	1,016,920	1,756	0.0%

*Supply gaps in parentheses indicate the number of trained workers we expect to fall short of the baseline talent needed to see the employment growth officially forecasted by the Bureau of Labor Statistics (BLS) and MN DEED. Represents skill mismatch in the region. Positive number indicates likely unemployment due to talent surplus. ** This focused, or narrow definition of Agriculture, Food, and Natural Resources (AFNR) aligns with classic definitions of the sector by MN DEED and BLS Agriculture, Fishing, and Forestry specific roles. The sector analysis found further in this report highlights a broader, more inclusive definition of AFNR, which is reflected in the sub-industry definition of AFNR included here.

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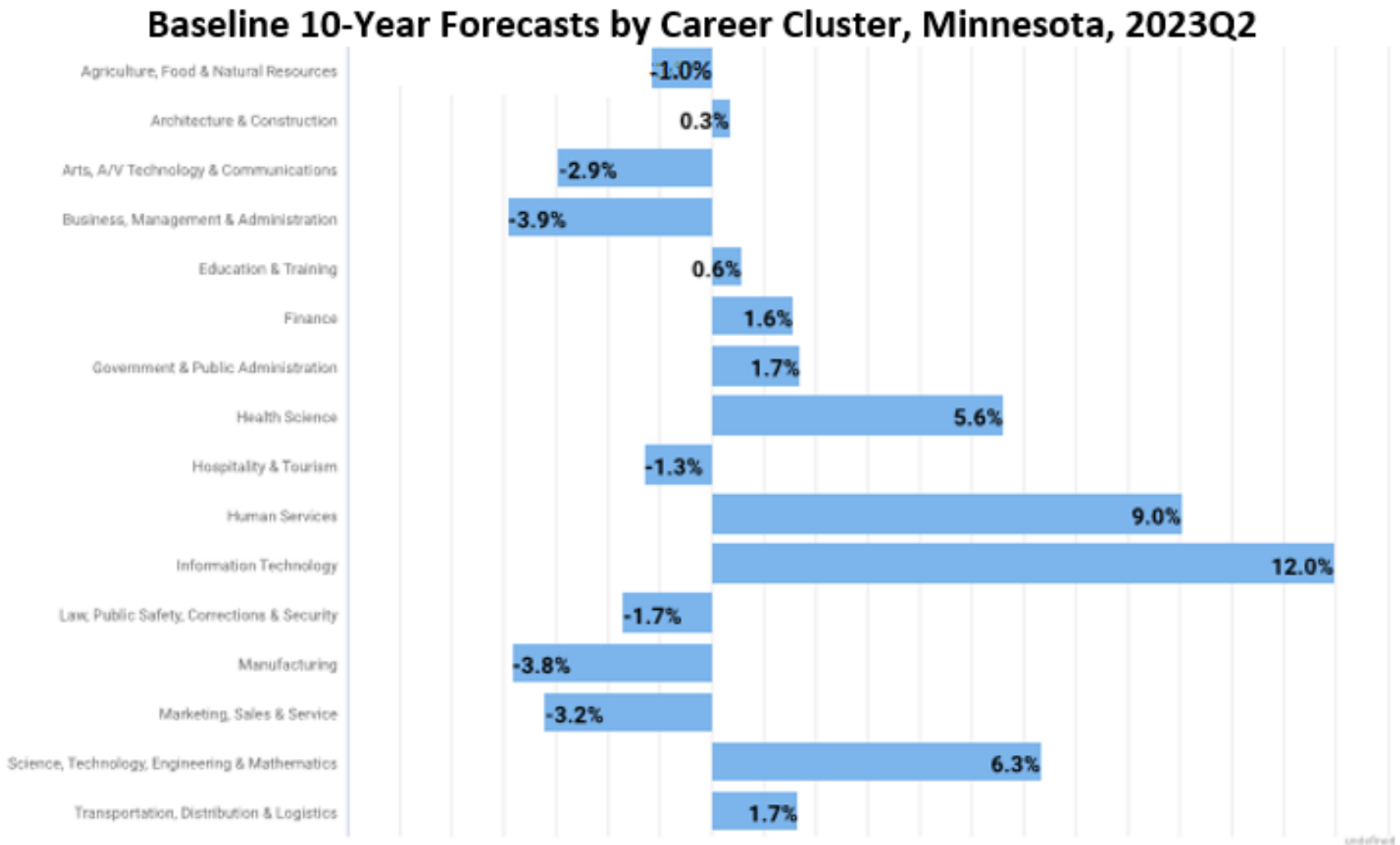
Career Cluster Detail

Minnesota



Cluster forecasts estimated using Chmura, JobsEQ, based on 2023Q2 employment data. All clusters are distinct occupations except for Agriculture, Food, and Natural Resources, which overlaps with other clusters.

Career Cluster Detail

Minnesota

Cluster Ten-Year Total Employment Change Forecasts by Region, 2023Q2

Career Cluster	Minnesota	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Science, Technology, Engineering & Mathematics	6.3% (+)	6.5%	-10.3%	1.5%	7.3% (+)	1.1%	2.6%
Information Technology	12.0% (+)	10.9%	0.6% (+)	4.0%	8.6% (+)	0.7%	4.8%
Finance	1.6%	1.1%	-5.0%	-1.0%	1.6%	-4.7%	-0.4%
Health Science	5.6%	7.1%	-1.2% (+)	3.2%	6.3%	0.0%	5.6%
Law, Public Safety, Corrections & Security	-1.7%	-1.3%	-7.0%	-2.3%	0.1%	-6.0%	-2.0%
Government & Public Administration	1.7%	2.2%	-4.4%	0.2%	3.2%	-2.8%	-0.3%
Business, Management & Administration	-3.9%	-3.5%	-6.9% (+)	-6.9%	-3.6%	-10.1%	-6.3%
Architecture & Construction	0.3%	1.1%	-5.3%	-1.1%	2.7%	-4.6%	-1.8%
Arts, A/V Technology & Communications	-2.9%	-2.5%	-9.0%	-6.0%	-2.4%	-11.0%	-5.3%
Education & Training	0.6%	2.9%	-6.0%	-1.5%	0.7%	-6.5%	-2.5%
Marketing, Sales & Service	-3.2%	-2.3%	-10.8%	-6.5%	-3.2%	-9.8%	-7.0%
Transportation, Distribution & Logistics	1.7%	2.9%	-5.7%	-1.6%	2.4% (+)	-4.3% (+)	-1.8%
Manufacturing	-3.8%	-2.8%	-11.2%	-7.5%	-1.4%	-7.5%	-6.1%
Agriculture, Food & Natural Resources	-1.0%	3.0%	-7.0%	-5.0%	-1.0%	-9.0%	-10.0%
Human Services	9.0%	10.9%	2.5%	7.5%	8.6%	2.6%	5.7%
Hospitality & Tourism	-1.3%	-0.2%	-6.8%	-2.3%	1.1%	-5.8%	-3.1%
Total - All Occupations	**0.0%**	**1.0%**	**-7.0%**	**-3.0%**	**1.0%**	**-6.0%**	**0.0%**

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Career Cluster Detail

Minnesota

Employment, Wages, and Forecast by Career Cluster, 2023Q2

Career Cluster	Employment	Avg Ann Wages	Job Ads	Baseline 10-Year Forecasted Empl Change	Ann Empl Change	Ann Total Demand
Science, Technology, Engineering & Mathematics	47,864	$108,000	4,369	6.3% (+)	295	3,635
Information Technology	95,702	$104,800	6,856	12.0% (+)	1,088	8,035
Finance	125,298	$95,200	5,667	1.6%	195	10,991
Health Science	298,189	$89,700	24,800	5.6%	1,631	27,042
Law, Public Safety, Corrections & Security	75,862	$78,800	3,229	-1.7%	-131	7,163
Government & Public Administration	26,613	$75,000	1,044	1.7%	45	2,606
Business, Management & Administration	560,476	$74,300	19,816	-3.9%	-2,238	59,426
Architecture & Construction	193,463	$68,800	3,962	0.3%	66	19,154
Arts, A/V Technology & Communications	49,919	$66,100	1,211	-2.9%	-149	4,992
Education & Training	183,597	$62,600	6,711	0.6%	106	17,150
Marketing, Sales & Service	316,228	$61,800	13,971	-3.2%	-1,030	38,786
Transportation, Distribution & Logistics	233,940	$54,500	7,379	1.7%	385	29,330
Manufacturing	275,300	$54,400	11,104	-3.8%	-1,073	28,798
Agriculture, Food & Natural Resources	266,977	$50,200	12,349	-1.0%	-221	18,699
Human Services	197,021	$46,500	7,890	9.0%	1,713	27,398
Hospitality & Tourism	331,999	$35,900	18,407	-1.3%	-431	57,123
Total - All Occupations	**3,075,767**	**$66,100**	**137,931**	**0.0%**	**351**	**349,551**

*Cluster forecasts estimated using Chmura, JobsEQ, based on 2023Q2 employment data. All clusters are distinct occupations except for Agriculture, Food, and Natural Resources, which overlaps with other clusters. (+) indicates an improved forecast from 2022Q2 estimates.

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Zero Unemployment

Minnesota

Occupations with No Unemployed Workforce and Employing over 75 Workers, Minnesota 2023Q2

		Current						5-Year History		5-Year Forecast				
SOC	Occupation	Empl	Mean Ann Wages[2]	LQ	Unempl	Unempl Rate	30-Day Online Job Ads[3]	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Change	Ann % Change
11-1031	Legislators	732	$70,000	0.93	0	n/a	n/a	6	0.2%	284	113	175	-3	-0.1%
33-9021	Private Detectives and Investigators	605	$64,800	0.85	0	n/a	11	-32	-1.0%	287	106	176	4	0.1%
17-2011	Aerospace Engineers	578	$123,100	0.48	0	n/a	26	13	0.5%	169	64	99	6	0.2%
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	566	$48,900	0.76	0	n/a	3	-63	-2.1%	308	135	190	-16	-0.6%
49-2097	Audiovisual Equipment Installers and Repairers	387	$53,100	0.76	0	n/a	11	-146	-6.2%	186	69	129	-13	-0.7%
11-9131	Postmasters and Mail Superintendents	307	$83,900	1.20	0	n/a	9	-21	-1.3%	98	45	70	-17	-1.1%
53-6099	Transportation Workers, All Other	192	$43,200	0.80	0	n/a	1	-60	-5.3%	121	43	76	1	0.1%
25-4011	Archivists	154	$63,600	0.93	0	n/a	5	5	0.6%	99	46	48	4	0.6%
19-2012	Physicists	125	$137,200	0.32	0	n/a	15	19	3.3%	48	16	29	2	0.4%
19-3091	Anthropologists and Archeologists	101	$85,200	0.69	0	n/a	73	6	1.3%	49	12	35	2	0.4%
47-5013	Service Unit Operators, Oil and Gas	98	$69,300	0.12	0	n/a	n/a	23	5.5%	58	12	44	1	0.3%
43-2021	Telephone Operators	83	$46,800	1.08	0	n/a	n/a	-95	-14.2%	37	23	26	-12	-3.2%
00-0000	**Total - All Occupations**	**3,075,767**	**$66,100**	**1.00**	**87,730**	**2.9%**	**146,046**	**11,603**	**0.1%**	**1,746,576**	**727,900**	**1,016,920**	**1,756**	**0.0%**

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Chmura Economics JobsEQ, 2023Q2 dataset.

Career Field Analysis

Target Occupations
High wage (above regional average)
*High-skill (*require some credential)
High-demand (2/4 indicators: under 3% unempl, higher than average 5-year growth, total 5-year demand >50% of current empl, high job posting volume)
*Often also high occupation gap and award gap

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Gateway Occupations
Mid-wage ($45,000 – regional average)
Low-middle skills (HS diploma, some OJT)
Sufficient demand (3-5% unemployment and/or high volumes of current opportunities)

Origin Occupations
Low wage (<$45,000/year)
Low skill (no credential)
Low demand (over 5% unemployment, low growth, low replacement demand, and/or low job postings)

Career Field Analysis

Occupation Characteristics for Consideration

- High-Wage: Paying above the area mean wage
- High-Skill: Requiring some form of credential
- High-Demand: 2/4 of the following requirements met:
  - Low unemployment
  - High volume of job postings in the past 3 months
  - Forecasted growth outpaces average regional forecasted growth
  - Forecasted total demand equal to or greater than 50% of total current employment
- Occupation Gaps
- Award Gaps

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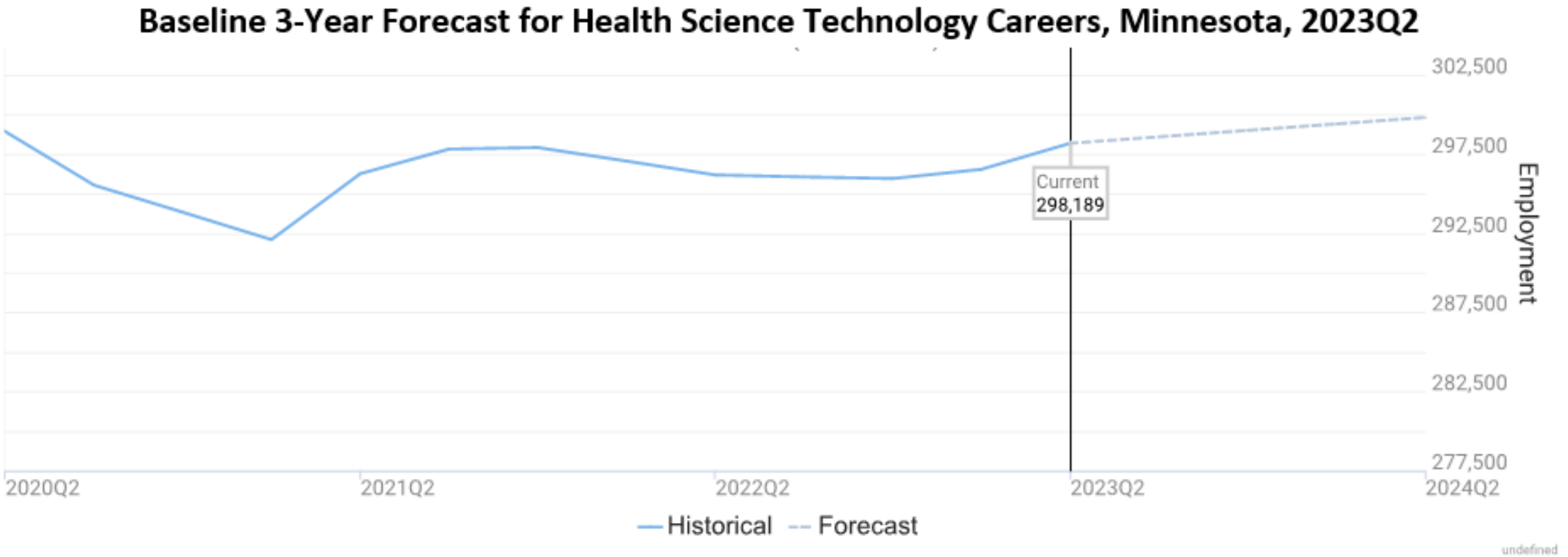
Health Science Technology

Minnesota



2023Q2 Employment: 298,189 (9.7% of MN employment)
Average Wage: $89,700 (compared to $66,100 across all occupations)
Location Quotient: 1.06

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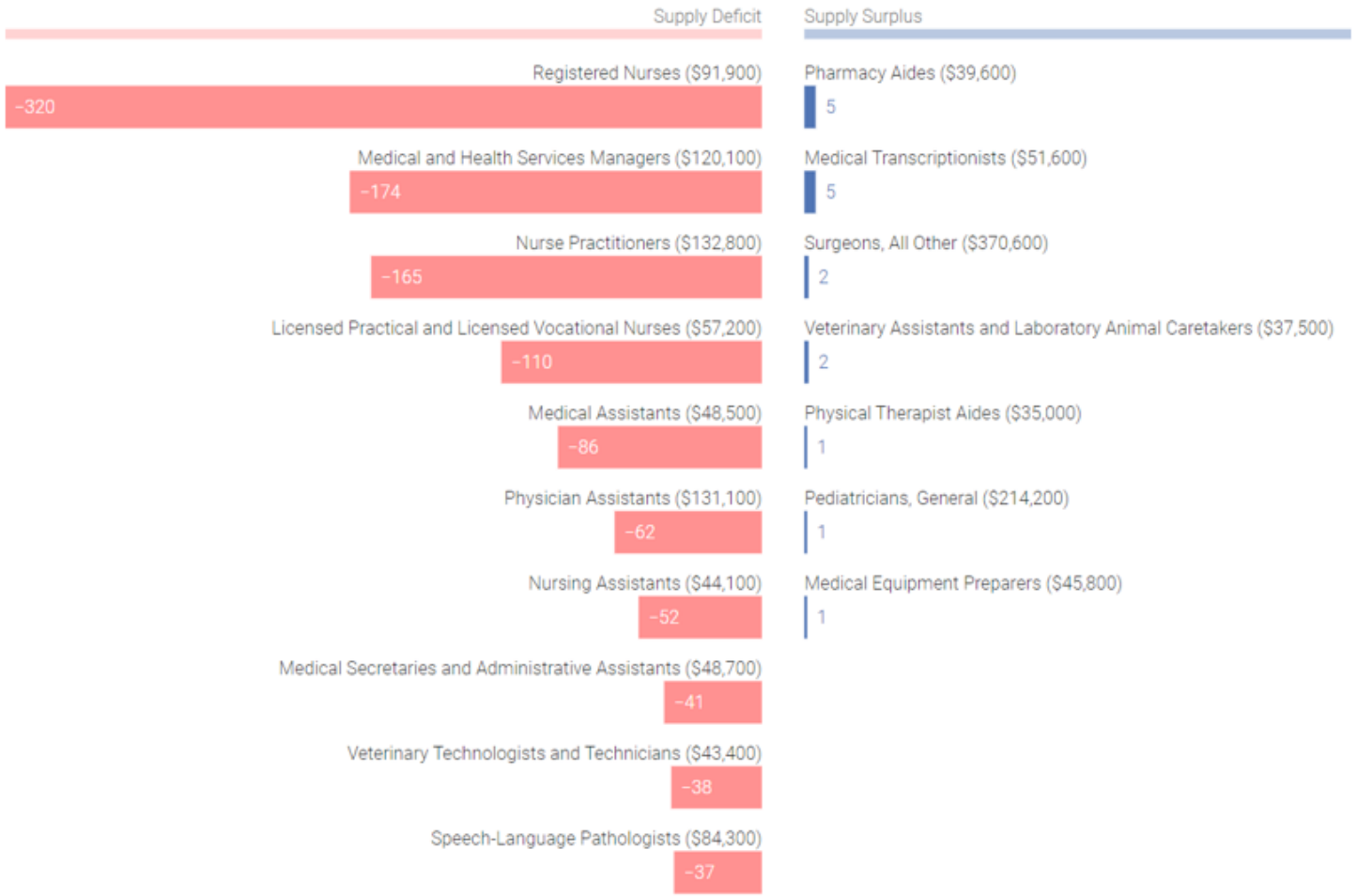
Chmura Economics JobsEQ, 2023Q2 dataset.

Health Science Technology

Minnesota

Annual Average Occupation Gaps (i.e. Talent Shortages) for the next 10 Years in Health Science Technology, Minnesota, 2023Q2



Demographic Highlight

24.2% Age 25-34

79.0% Female

80.8% White

3.5% Hispanic/Latinx

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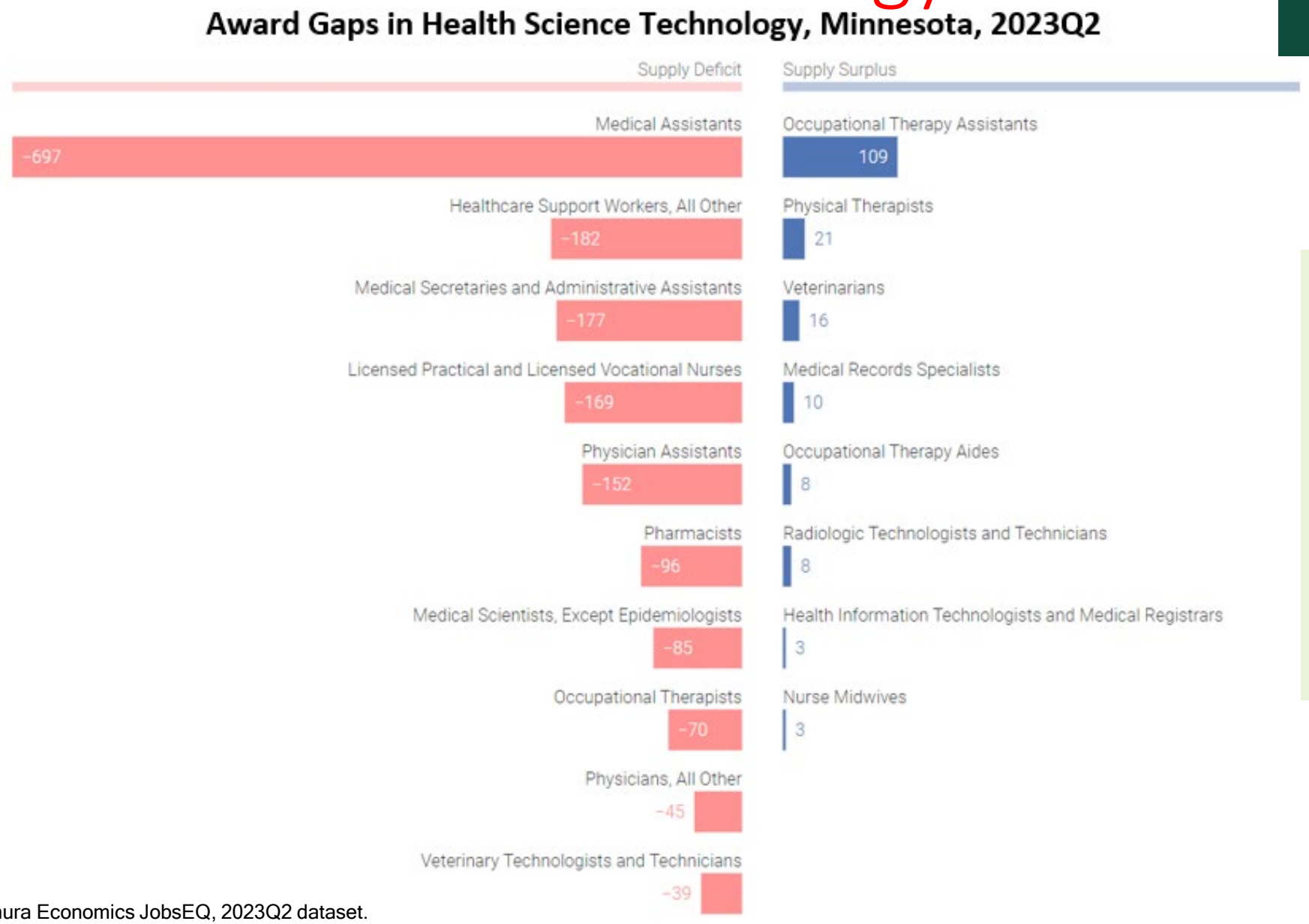
Chmura Economics JobsEQ, 2023Q2 dataset.

Health Science Technology

Minnesota



2023Q2 Unemployment: 5,210 (1.7% unemployment rate)
30-Day Job Ads: 26,147 (compared to 148,113 across all occupations)
5-Year Ann Avg Employment Change: -0.1%
Forecast 5-Year Ann Employment Change: 0.5%
Total 5-Year Demand: 136,009

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Chmura Economics JobsEQ, 2023Q2 dataset.

Health Science Technology

Minnesota, 2023Q2

Target Occupations (All HW, HD, HS, OG)
Registered Nurses
Medical & Health Services Managers (AG)
Nurse Practitioners
Dental Hygienists
Radiomic Technologists & Technicians

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Gateway Occupations (All HD, OG)
Medical Secretaries & Administrative Assistants (AG)
Licensed Practical & Licensed Vocational Nurses (HS, AG)
Medical Assistants (HS, AG)
Pharmacy Technicians (AG)
Dental Assistants (HS)

Origin Occupations
Nursing Assistants (HS, HD, OG)
Home Health Aides (HD, AG)
Healthcare Support Workers (HD, AG)
Veterinary Technologists & Technicians (HS, HD, OG, AG)
Psychiatric Technicians (HS, OG, AG)

Health Science Technology

Minnesota

Origin-to-Gateway-to-Target Occupations for Health Science Technology, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Avg. Wage	Region: $70,7500 Field: $90,500	Region: $57,900 Field: $80,700	Region: $55,600 Field: $77,200	Region: $57,400 Field: $83,100	Region: $56,500 Field: $78,200	Region: $68,000 Field: $110,700
Unempl	Region: 2.6% Field: 1.7%	Region: 3.9% Field: 2.2%	Region: 3.2% Field: 2.0%	Region: 3.4% Field: 2.0%	Region: 2.9% Field: 1.8%	Region: 2.4% Field: 1.4%
Origin Occupations	• Home Health Aides • Healthcare Support Workers, All Other • Psychiatric Technicians • Phlebotomists • Veterinary Assistants & Laboratory Animal Caretakers	• Nursing Assistants • Home Health Aides • Pharmacy Technicians • Healthcare Support Workers • Psychiatric Technicians	• Nursing Assistants • Home Health Aides • Medical Secretaries • Pharmacy Technicians • Medical Assistants	• Nursing Assistants • Home Health Aides • Medical Secretaries • Medical Assistants • Pharmacy Technicians	• Nursing Assistants • Home Health Aides • Medical Assistants • Pharmacy Technicians • Veterinary Technologists & Technicians	• Nursing Assistants • Home Health Aides • Healthcare Support Workers, All Other • Phlebotomists • Veterinary Technologists & Technicians
Gateway Occupations	• Nursing Assistants • Medical Secretaries • LPNs • Medical Assistants • Pharmacy Technicians	• LPNs • Medical Secretaries • Medical Assistants • Dental Assistants • Medical Records Specialists	• LPNs • Dental Assistants • Medical Records Specialists • Ophthalmic Technicians • Therapists, All Other	• LPNs • Dental Assistants • Athletic Trainers • Therapists, All Other • Occupational Therapy Assistants	• LPNs • Medical Secretaries • Medical Records Specialists • Health Technologists & Technicians • Ophthalmic Medical Technicians	• Medical Assistants • Medical Secretaries & Administrative Assistants • LPNs • Pharmacy Technicians • Medical Records Specialists
Target Occupations	• Registered Nurses • Medical & Health Services Managers • Nurse Practitioners • Medical Scientists • Dental Hygienists	• Registered Nurses • Medical & Health Services Managers • Pharmacists • Radiologic Technicians • Physicians	• Registered Nurses • Medical & Health Services Managers • Pharmacists • Dental Hygienists • Physical Therapists	• Registered Nurses • Medical & Health Services Managers • Pharmacists • Nurse Practitioners • Dental Hygienists	• Registered Nurses • Medical & Health Services Managers • Dental Assistants • Pharmacists • Dental Hygienists	• Registered Nurses • Nurse Practitioners • Physicians, All Other • Medical & Health Services Managers • Physician Assistants

Chmura Economics JobsEQ, 2023Q2 dataset.

Health Science Technology

Minnesota

High Location Quotient (LQ) Occupations for Health Science Technology, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
LQ > 1.20	• Bioengineers & Biomedical Engineers • Orthotists & Prosthetists • Medical Scientists • Genetic Counselors • Surgeons, All Other	• Genetic Counselors • Healthcare Support Workers, All Other • Surgeons, All Other • Epidemiologists • Nurse Anesthetists	• Healthcare Support Workers, All Other • Genetic Counselors • Epidemiologists • Nursing Assistants • LPNs	• Chiropractors • Genetic Counselors • Surgeons, All Other • Nurse Anesthetists • Healthcare Support Workers, All Other	• Recreational Therapists • Psychiatric Aides • Chiropractors • Healthcare Support Workers, All Other • Surgeons, All Other	• Dermatologists • Surgeons, All Other • Nurse Anesthetists • Obstetricians and Gynecologists • Cardiologists

High Location Quotient (LQ) Occupations for Health Science Technology, Minnesota 2023Q2

1) Surgeons, All Other (2.37)
2) Genetic Counselors (2.20)
3) Nurse Anesthetists (2.14)
4) Dermatologists (2.10)
5) Medical Scientists (1.84)

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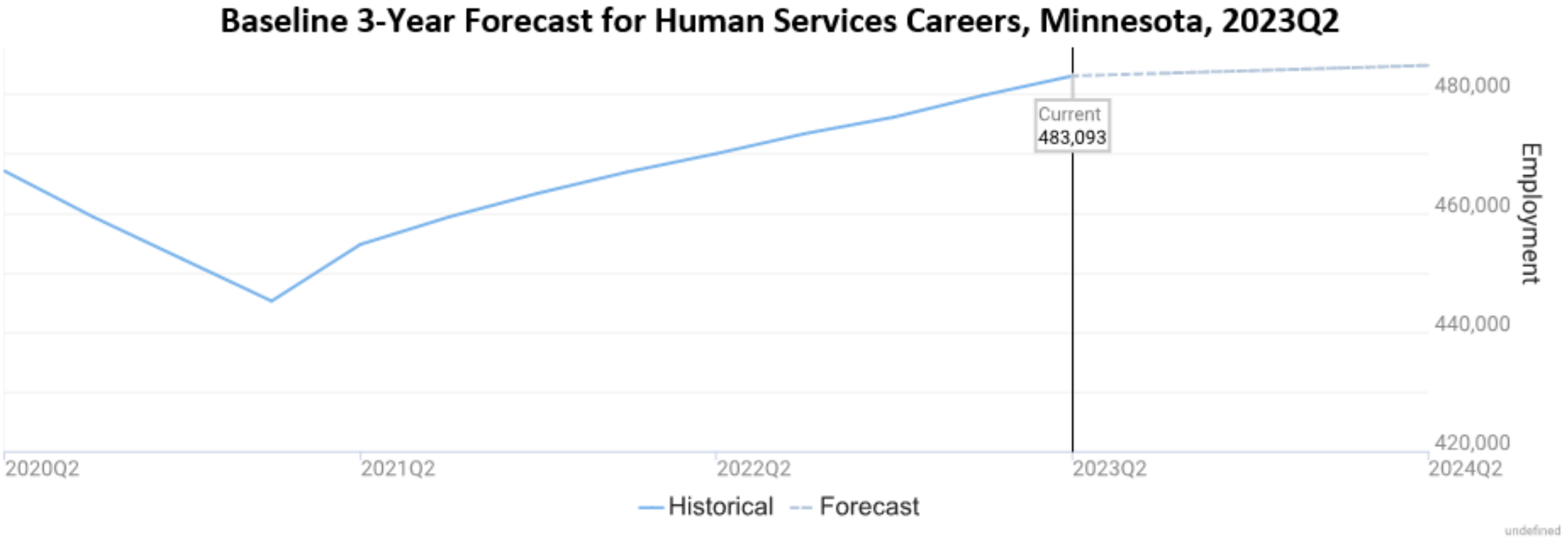
Chmura Economics JobsEQ, 2023Q2 dataset.

Human Services

Minnesota



2023Q2 Employment: 483,093 (15.7% of MN employment)
Average Wage: $59,300 (compared to $66,100 across all occupations)
Location Quotient: 1.01

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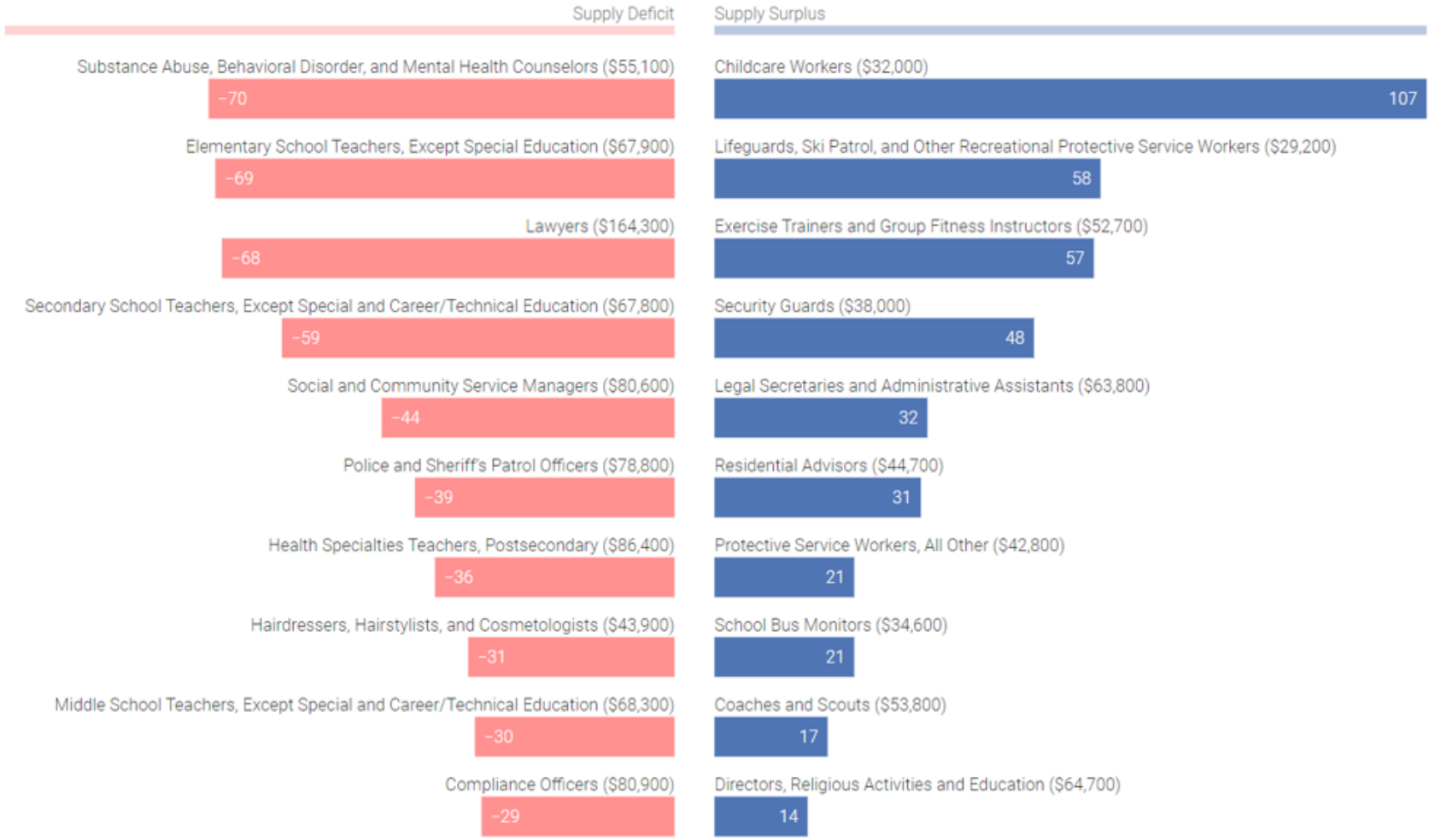
Chmura Economics JobsEQ, 2023Q2 dataset.

Human Services

Minnesota

Annual Average Occupation Gaps (i.e. Talent Shortages) for the next 10 Years in Human Services, Minnesota, 2023Q2



Demographic Highlight

24.3% Age 55 or older

65.1% Female

84.6% White

4.0% Hispanic/Latinx

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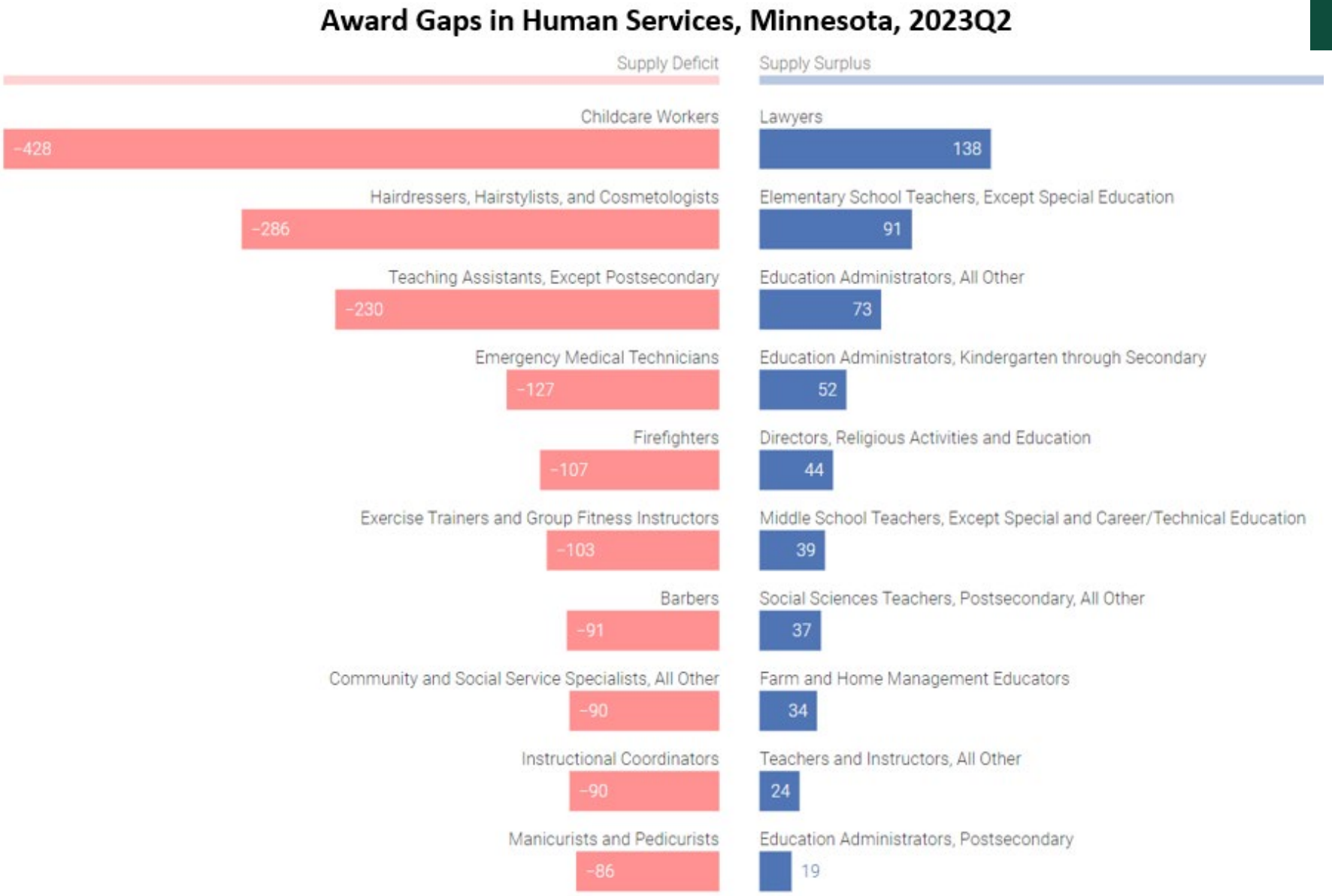
Chmura Economics JobsEQ, 2023Q2 dataset.

Human Services

Minnesota



2023Q2 Unemployment: 11,185 (2.3% unemployment rate)
30-Day Job Ads: 20,281 (compared to 148,113 across all occupations)
5-Year Ann Avg Employment Change: 0.5%
Forecast 5-Year Ann Employment Change: 0.4%
Total 5-Year Demand: 272,635

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Chmura Economics JobsEQ, 2023Q2 dataset.

Human Services

Minnesota, 2023Q2

Target Occupations (All HW, HD, HS, OG)
Elementary School Teachers
Lawyers
Child, Family, & School Social Workers (AG)
Compliance Officers (AG)
Paralegals & Legal Assistants

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Gateway Occupations (All HD)
Social & Human Service Assistants AG)
Substance Abuse, Behavioral Disorder, & Mental Health Counselors (HS, OG, AG)
Self-Enrichment Teachers
Exercise Trainers & Group Fitness Instructors (AG)
Court, Municipal, & License Clerks (OG)

Origin Occupations (All HD)
Personal Care Aides (AG)
Teaching Assistants (HS, AG)
Childcare Workers (AG)
Preschool Teachers (HS, AG)
Security Guards

Human Services

Minnesota

Origin-to-Gateway-to-Target Occupations for Human Services, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Avg. Wage	Region: $70,7500 Field: $62,300	Region: $57,900 Field: $54,200	Region: $55,600 Field: $53,900	Region: $57,400 Field: $53,400	Region: $56,500 Field: $54,800	Region: $68,000 Field: $55,500
Unempl	Region: 2.6% Field: 2.2%	Region: 3.9% Field: 2.9%	Region: 3.2% Field: 2.5%	Region: 3.4% Field: 2.7%	Region: 2.9% Field: 2.3%	Region: 2.4% Field: 2.0%
Origin Occupations	• Personal Care Aides • Teaching Assistants • Childcare Workers • Security Guards • Preschool Teachers	• Personal Care Aides • Teaching Assistants • Childcare Workers • Social & Human Service Assistants • Preschool Teachers	• Personal Care Aides • Teaching Assistants • Childcare Workers • Social & Human Service Assistants • Preschool Teachers	• Personal Care Aides • Teaching Assistants • Childcare Workers • Preschool Teachers • Social & Human Service Assistants	• Personal Care Aides • Teaching Assistants • Childcare Workers • Preschool Teachers • Hairdressers, Hairstylists, & Cosmetologists	• Personal Care Aides • Teaching Assistants • Childcare Workers • Preschool Teachers • Emergency Medical Technicians
Gateway Occupations	• Social & Human Service Assistants • Hairdressers, Hairstylists, & Cosmetologists • Self-Enrichment Teachers • Substance Abuse & Mental Health Counselors • Child, Family, & School Social Workers	• Substance Abuse & Mental Health Counselors • License Clerks • Correctional Officers • Exercise Trainers • Clergy	• License Clerks • Substance Abuse & Mental Health Counselors • Clergy • Correctional Workers • Exercise Trainers	• Substance Abuse & Mental Health Counselors • Substitute Teachers • Correctional Officers • License Clerks • Clergy	• Social & Human Service Assistants • License Clerks • Substance Abuse & Mental Health Counselors • Correctional Officers • Substitute Teachers	• Elementary School Teachers • Secondary Teachers • Middle School Teachers • Substance Abuse & Mental Health Counselors • Child, Family, & School Social Workers
Target Occupations	• Elementary School Teachers • Secondary School Teachers • Lawyers • Middle School Teachers • Compliance Officers	• Child, Family, & School Social Workers • Lawyers • Social & Community Service Managers • Compliance Officers • Social Work, All Others	• Child, Family, & School Social Workers • Lawyers • Social & Community Service Managers • Directors, Religious Activities • Guidance & Career Counselors	• Child, Family, & School Social Workers • Lawyers • Social & Community Service Managers • Compliance Officers • Educational, Guidance, & Career Counselors	• Child, Family, & School Social Workers • Lawyers • Social & Community Service Managers • Guidance & Career Counselors • Compliance Officers	• Lawyers • Social & Community Service Managers • Compliance Officers • Social Workers, All Other • Health Specialties Teachers, Postsecondary

Chmura Economics JobsEQ, 2023Q2 dataset.

Human Services

Minnesota

High Location Quotient (LQ) Occupations for Human Services, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
LQ > 1.20	• Social Workers, All Other • Preschool Special Ed Teachers • Marriage & Family Therapists • Postsecondary Geography Teachers • Postsecondary Area Ethnic & Cultural Studies Teachers	• Gambling Surveillance Officers • Social Workers, All Other • Court, Municipal & License Clerks • Residential Advisors • Preschool Special Ed Teachers	• Funeral Home Managers • Preschool Special Ed Teachers • Social Workers, All Other • Court, Municipal, & License Clerks • Sec. Special Ed Teachers	• Preschool Special Ed Teachers • Funeral Home Managers • Social Workers, All Other • Court, Municipal, & License Clerks • Residential Advisors	• Funeral Home Managers • Preschool Special Ed Teachers • Court, Municipal, & License Clerks • Social Workers, All Other • Gambling Surveillance Officers & Gambling Investigators	• Emergency Medical Technicians • Paramedics • Preschool Special Ed Teachers • Funeral Home Managers • Social Workers, All Other

High Location Quotient (LQ) Occupations for Human Services, Minnesota 2023Q2

1) Social Workers, All Other (2.72)
2) Preschool Special Education Teachers (2.70)
3) Court, Municipal, & License Clerks (2.12)
4) Marriage & Family Therapists (2.03)
5) Residential Advisors (1.95)

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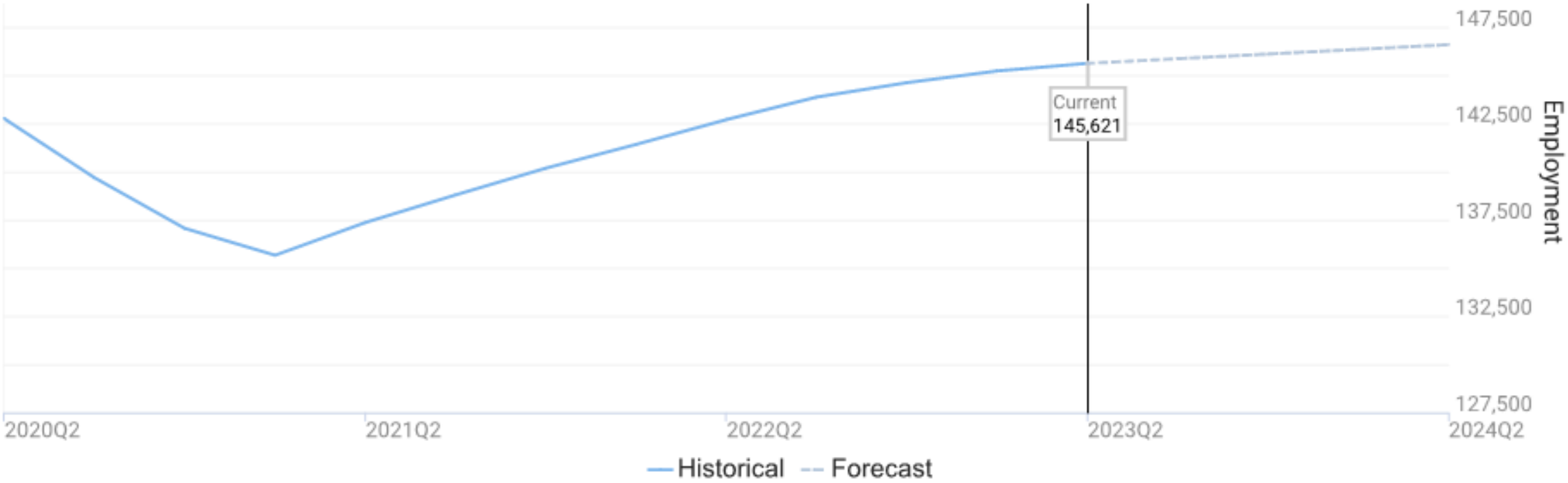
Chmura Economics JobsEQ, 2023Q2 dataset.

Arts, Communications, & Information Systems

Minnesota

Baseline 3-Year Forecast for Arts, Communications, and Information Systems Careers, Minnesota, 2023Q2



2023Q2 Employment: 145,621 (4.7% of MN employment)
Average Wage: $91,700 (compared to $66,100 across all occupations)
Location Quotient: 1.02

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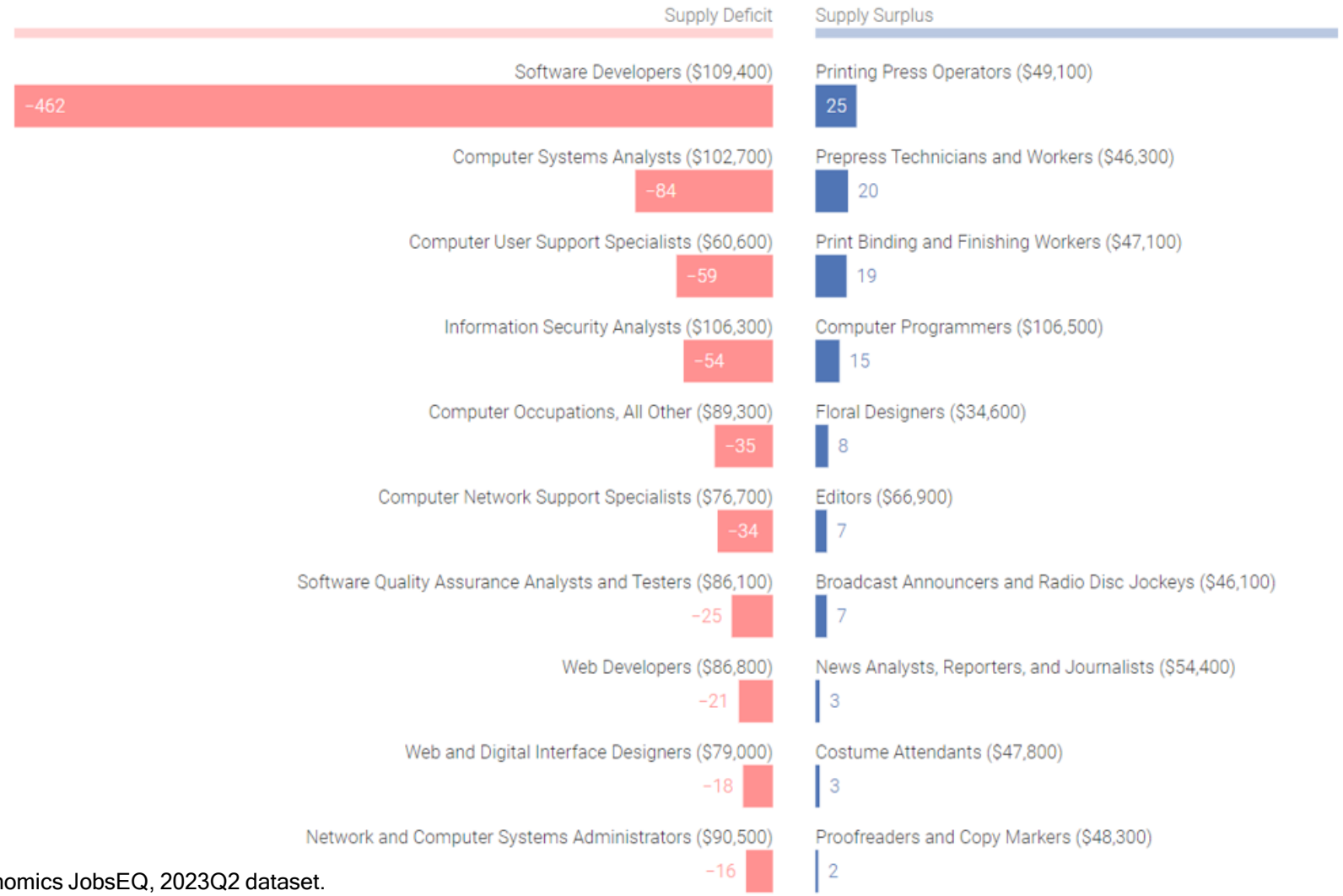
Arts, Communications, & Information Systems

Minnesota

Annual Average Occupation Gaps (i.e. Talent Shortages) for the next 10 Years in Arts, Communications, and Information Systems, Minnesota, 2023Q2



Chmura Economics JobsEQ, 2023Q2 dataset.

Demographic Highlight

20.4% Age 55 or older

71.3% Male

77.9% White

2.9% Hispanic/Latinx

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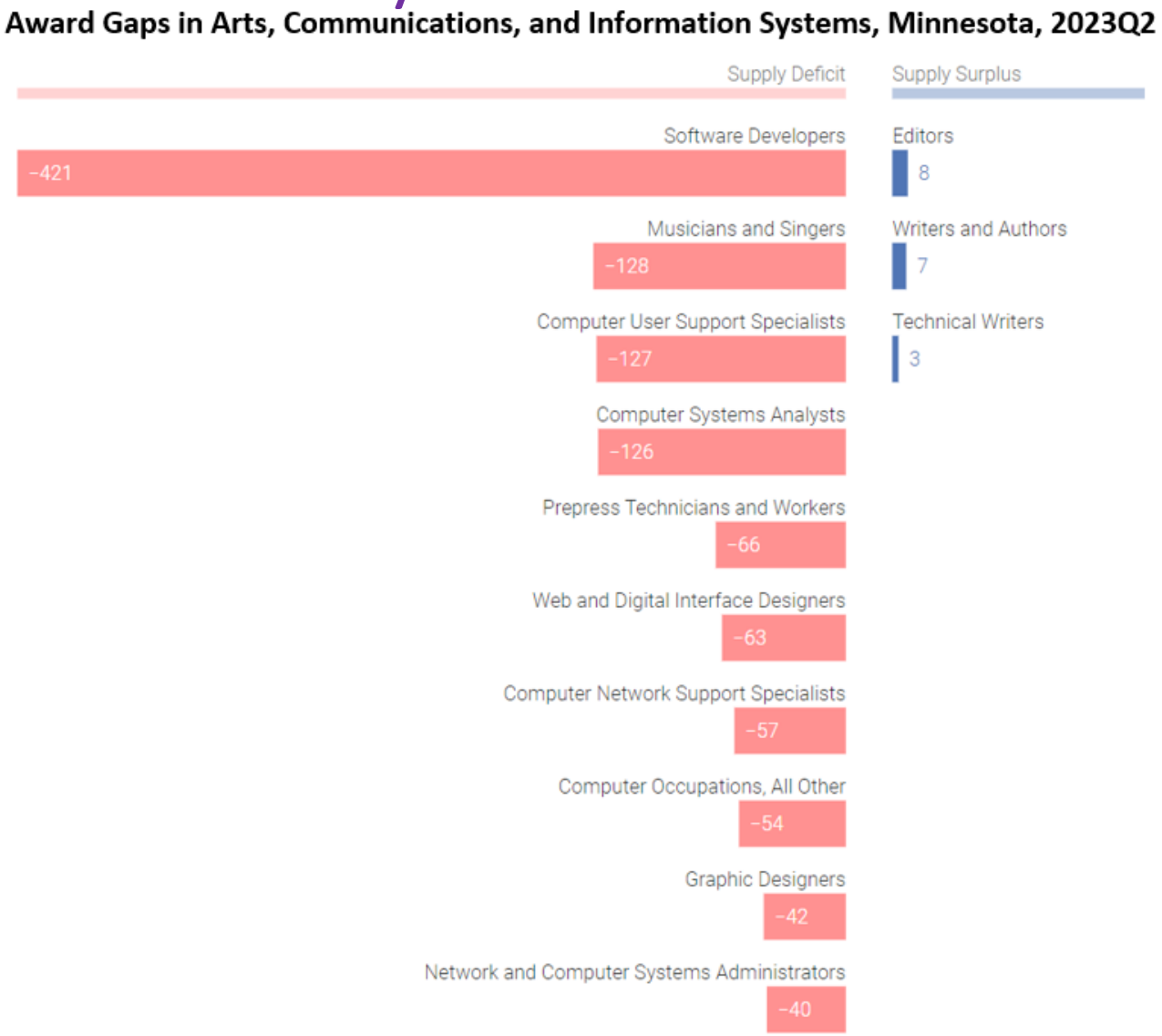
Arts, Communications, & Information Systems

Minnesota



2023Q2 Unemployment: 2,855 (2.1% unemployment rate)
30-Day Job Ads: 6,832 (compared to 148,113 across all occupations)
5-Year Ann Avg Employment Change: -0.1%
Forecast 5-Year Ann Employment Change: 0.6%
Total 5-Year Demand: 65,412

Chmura Economics JobsEQ, 2023Q2 dataset.

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Arts, Communications, & Information Systems

Minnesota, 2023Q2

Target Occupations (All HW, HD, HS, OG, AG)
Software Developers
Computer User Support Specialists
Computer Systems Analysts
Computer Network Support Specialists
Computer Occupations, All Other

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Gateway Occupations
Printing Press Operators
Photographers (OG, AG)
Telecommunications Equipment Installers & Repairers (HS, HD, OG, AG)
Telecommunications Line Installers & Repairers (HD, OG, AG)
Prepress Technicians & Workers (HS, AG)

Origin Occupations (All AG)
Floral Designers
Dancers (HD)
Craft Artists (HD)

Arts, Communications, & Information Systems

Minnesota

Origin-to-Gateway-to-Target Occupations for Arts, Communications, and Information Systems, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Avg. Wage	Region: $70,700 Field: $95,800	Region: $57,900 Field: $77,900	Region: $55,600 Field: $72,100	Region: $57,400 Field: $75,400	Region: $56,500 Field: $73,000	Region: $68,000 Field: $84,500
Unempl	Region: 2.6% Field: 2.0%	Region: 3.9% Field: 3.0%	Region: 3.2% Field: 2.4%	Region: 3.4% Field: 2.4%	Region: 2.9% Field: 2.4%	Region: 2.4% Field: 1.9%
Origin Occupations	• Floral Designers • Dancers	• Printing Press Operators • Floral Designers • Print Binding & Finishing Workers • Disc Jockeys • Dancers	• Printing Press Operators • Floral Designers • Prepress Technicians • Print Binding & Finishing Workers • Reporters & Journalists • Disc Jockeys	• Prepress Technicians • Floral Designers • Broadcast Announcers • Disc Jockeys • Dancers	• Prepress Technicians • Print Binding & Finishing Workers • Broadcast Announcers • Floral Designers • Reporters & Journalists	• Floral Designers • Broadcast Announcers • Disc Jockeys • Dancers • Craft Artists
Gateway Occupations	• Computer User Support Specialists • Printing Press Operators • Photographers • Telecommunications Equipment Installers • Prepress Technicians	• Graphic Designers • Photographers • Audio & Video Technicians • Prepress Technicians • Designers, All Other	• Graphic Designers • Photographers • Broadcast Announcers • Designers, All Other • Broadcast Technicians	• Printing Press Operators • Photographers • Print Binding & Finishing Workers • Reporters & Journalists • Designers, All Other	• Printing Press Operators • Graphic Designers • Telecommunications Line Installers & Repairers • Entertainers & Performers • Camera Operators	• Computer User Support Specialists • Graphic Designers • Telecommunications Equipment Installers • Printing Press Operators • Photographers
Target Occupations	• Software Developers • Computer Systems Analysts • Computer Network Support Specialists • Computer Occupations, Other • Network & Sys Admins	• Software Developers • Computer Systems Analysts • Computer Network Support Specialists • Computer Occupations, Other • Telecommunications Equipment Installers	• Software Developers • Computer Systems Analysts • Computer Network Support Specialists • Telecommunications Equipment Installers • Computer Occupations, Other • Writers & Authors	• Software Developers • Computer Systems Analysts • Computer Network Support Specialists • Computer Occupations, Other • Telecommunications Equipment Installers	• Software Developers • Computer Systems Analysts • Computer Network Support Specialists • Computer Occupations, Other • Telecommunications Equipment Installers	• Software Developers • Computer Systems Analysts • Computer Network Support Specialists • Computer Occupations, Other • Software Quality Assurance Analysts & Testers

Chmura Economics JobsEQ, 2023Q2 dataset.

Arts, Communications, & Information Systems

Minnesota

High Location Quotient (LQ) Occupations for Arts, Communications, and Information Systems, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
LQ > 1.20	• Prepress Technicians • Print Binding & Finishing Workers • Desktop Publishers • Computer Network Support Specialists • Printing Press Operators	• Broadcast Announcers • Prepress Technicians • Dancers • Computer Network Support Specialists	• Prepress Technicians • Broadcast Announcers • Print Binding & Finishing Workers • Commercial & Industrial Designers • Floral Designers	• Prepress Technicians • Print Binding & Finishing Workers • Printing Press Operators • Broadcast Announcers • Commercial & Industrial Designers	• Prepress Technicians • Print Binding & Finishing Workers • Printing Press Operators • Broadcast Announcers • Desktop Publishers	• Sound Engineering Technicians • Prepress Technicians • Computer Network Support Specialists • Broadcast Announcers

High Location Quotient (LQ) Occupations for Arts, Communications, and Information Systems, Minnesota 2023Q2

1) Prepress Technicians (3.46)
2) Print Binding & Finishing Workers (2.13)
3) Printing Press Operators (1.90)
4) Computer Network Support Specialists (1.86)
5) Desktop Publishers (1.83)

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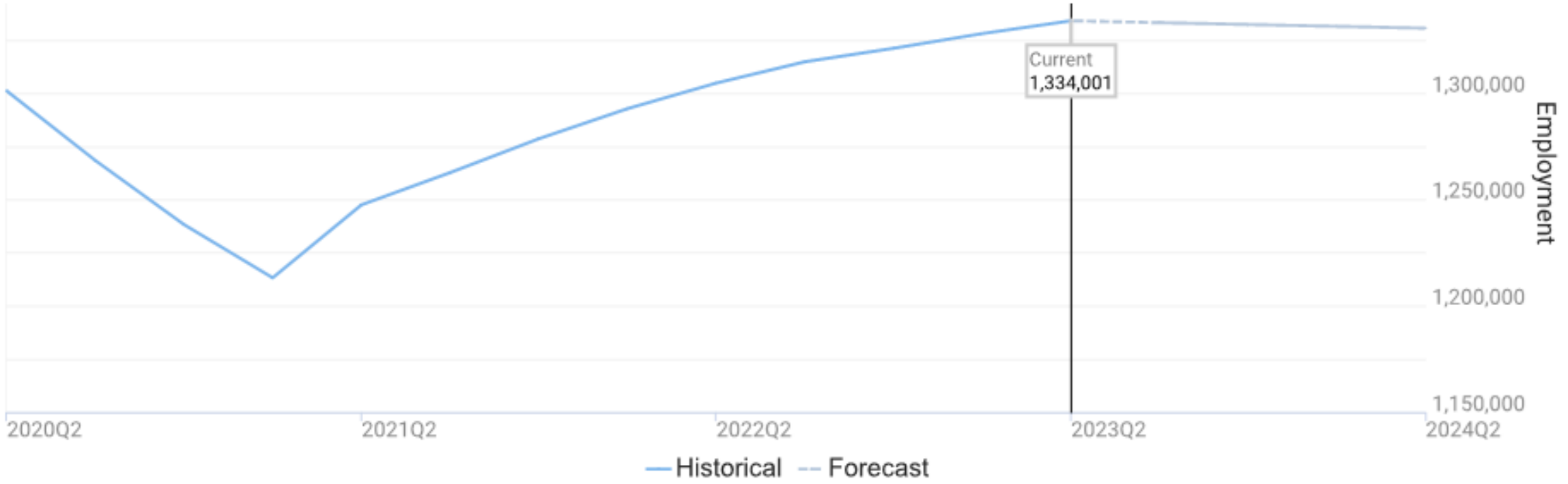
Chmura Economics JobsEQ, 2023Q2 dataset.

Business, Management, & Administration

Minnesota

Baseline 3-Year Forecast for Business, Management, and Administration Careers, Minnesota, 2023Q2



2023Q2 Employment: 1,334,001 (43.3% of MN employment)
Average Wage: $64,000 (compared to $66,100 across all occupations)
Location Quotient: 0.98

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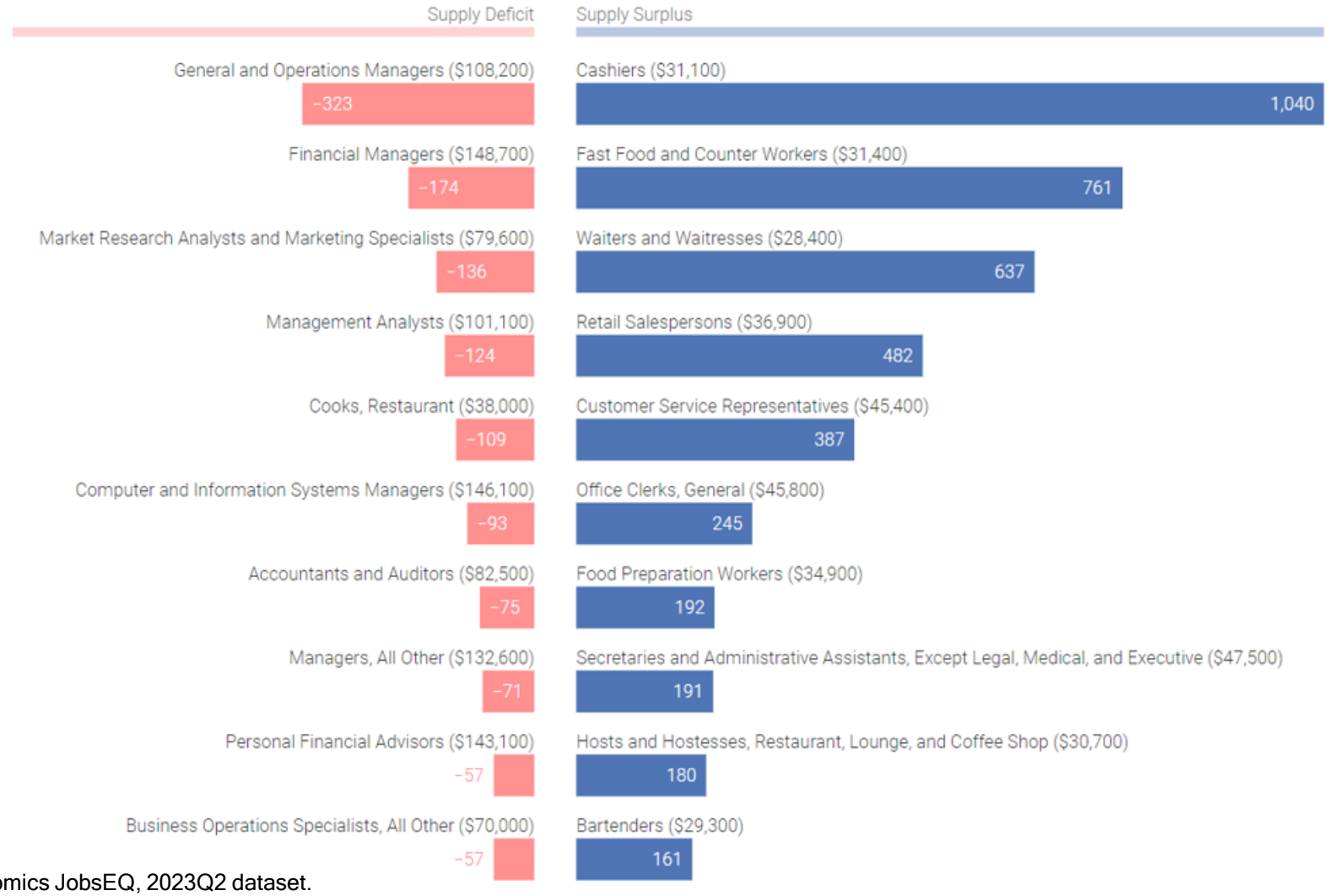
Chmura Economics JobsEQ, 2023Q2 dataset.

Business, Management, & Administration

Minnesota

Annual Average Occupation Gaps (i.e. Talent Shortages) for the next 10 Years in Business, Management, and Administration, Minnesota, 2023Q2



Demographic Highlight

22.6% Age 55 or older

54.4% Female

84.4% White

5.2% Hispanic/Latinx

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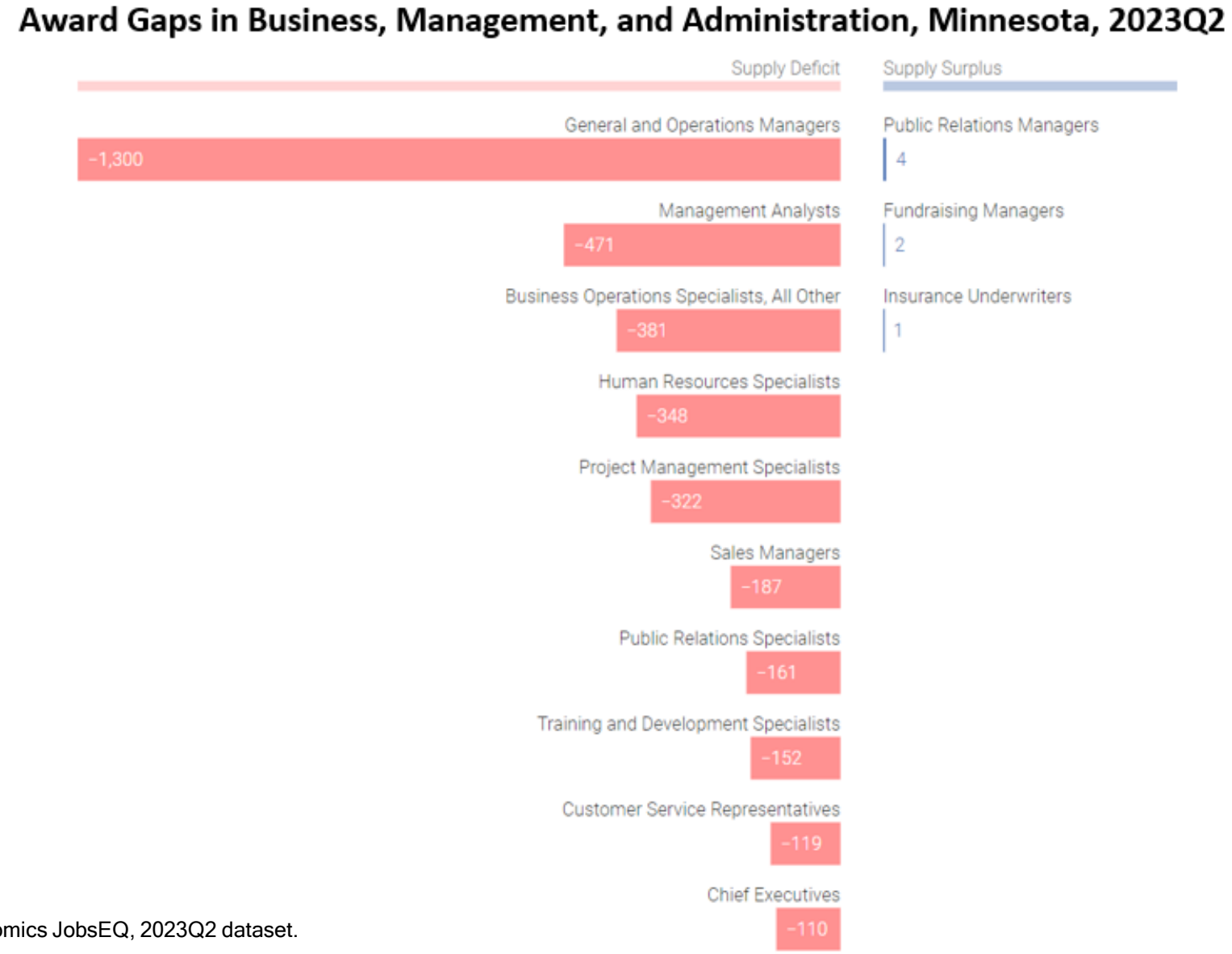
Chmura Economics JobsEQ, 2023Q2 dataset.

Business, Management, & Administration

Minnesota



2023Q2 Unemployment: 41,435 (3.1% unemployment rate)
30-Day Job Ads: 62,832 (compared to 148,113 across all occupations)
5-Year Ann Avg Employment Change: -0.2%
Forecast 5-Year Ann Employment Change: -0.3%
Total 5-Year Demand: 828,092

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Chmura Economics JobsEQ, 2023Q2 dataset.

Business, Management, & Administration

Minnesota, 2023Q2

Target Occupations (All HW, HD, HS, OG)
General & Operations Managers (AG)
Accountants & Auditors
Market Research Analysts & Marketing Specialists (AG)
Management Analysts (AG)
Business Operations Specialists (AG)

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Gateway Occupations (All HD)
Customer Service Representatives (AG)
Office Clerks, General (AG)
Secretaries & Administrative Assistants, Except Legal, Medical, & Executive
Bookkeeping, Accounting, & Auditing Clerks (HS, AG)
Supervisors of Retail Workers

Origin Occupations (All HD)
Retail Salespersons
Cashiers
Fast Food & Counter Workers
Stockers & Order Fillers
Janitors & Cleaners, Except Maids & Housekeeping Cleaners

Business, Management, & Administration

Minnesota

Origin-to-Gateway-to-Target Occupations for Business, Management, and Administration, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Avg. Wage	Region: $70,700 Field: $69,500	Region: $57,900 Field: $50,500	Region: $55,600 Field: $51,300	Region: $57,400 Field: $52,900	Region: $56,500 Field: $53,100	Region: $68,000 Field: $55,100
Unempl	Region: 2.6% Field: 2.8%	Region:3.9% Field: 4.4%	Region: 3.2% Field: 3.6%	Region: 3.4% Field: 3.8%	Region: 2.9% Field: 3.2%	Region: 2.4% Field: 2.9%
Origin Occupations	• Retail Salespersons • Fast Food Workers • Cashiers • Janitors & Cleaners • Stockers & Order Fillers	• Retail Salespersons • Cashiers • Fast Food Workers • Waiters & Waitresses • Office Clerks, General	• Cashiers • Retail Salespersons • Fast Food & Counter Workers • Office Clerks, General • Stockers & Order Fillers	• Cashiers • Retail Salespersons • Fast Food Workers • Office Clerks, General • Stockers & Order Fillers	• Cashiers • Retail Salespersons • Fast Food Workers • Office Clerks, General • Stockers & Order Fillers	• Customer Service Reps • Stockers & Order Fillers • Receptionists & Info Clerks • Shipping, Receiving, & Inventory Clerks • Interviewers
Gateway Occupations	• Customer Service Representatives • Office Clerks, General • Secretaries & Administrative Assistants • Bookkeeping Clerks • Supervisors of Retail Workers	• Secretaries & Administrative Assistants • Supervisors of Retail Workers • Bookkeeping, Accounting, & Auditing Workers • Billing & Posting Clerks • Supervisors of Housekeeping & Janitorial Workers	• Supervisors of Retail Workers • Bookkeeping, Accounting, & Auditing Clerks • Property, Real Estate, & Community Assn Managers • Billing & Posting Clerks • Supervisors of Housekeeping & Janitorial Workers	• Supervisors of Retail Workers • Secretaries & Administrative Assistants • Bookkeeping, Accounting, & Auditing Clerks • Billing & Posting Clerks • Postal Service Mail Carriers	• Secretaries & Administrative Assistants • Supervisors of Retail Workers • Bookkeeping, Accounting, & Auditing Clerks • Real Estate Sales Agents • Property, Real Estate, & Community Assn Managers	• Office Clerks, General • Secretaries & Administrative Assistants • Bookkeeping, Accounting, & Auditing Clerks • Billing & Posting Clerks • Executive Secretaries & Executive Administrative Assistants
Target Occupations	• General & Operations Managers • Accountants & Auditors • Market Research Analysts • Management Analysts • Business Operations Specialists	• General & Operations Managers • Accountants & Auditors • Managers, All Other • Business Operations Specialists, All Other • Market Research Analysts	• General & Operations Managers • Accountants & Auditors • Managers, All Other • Business Operations Specialists • Market Research Analysts	• General & Operations Managers • Accountants & Auditors • Market Research Analysts • Business Operations Specialists, All Other • Project Management Specialists	• General & Operations Managers • Accountants & Auditors • Managers, All Other • Market Research Analysts • Business Operations Specialists, All Other	• General & Operations Managers • Business Operations Specialists • Human Resource Specialists • Project Management Specialists • Management Analysts

Chmura Economics JobsEQ, 2023Q2 dataset.

Business, Management, & Administration

Minnesota

High Location Quotient (LQ) Occupations for Business, Management, and Administration, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
LQ > 1.20	• Gambling Service Workers • Gambling & Sports Book Writers & Runners • Labor Relations Specialists • Brokerage Clerks • Human Resources Assistants	• Gambling Service Workers • Gambling & Sports Book Writers & Runners • Gambling Cage Workers • Gambling Change Persons & Booth Cashiers • Supervisors of Gambling Service Workers	• Gambling Service Workers • Gambling & Sports Book Writers & Runners • Gambling Cage Workers • Chief Executives • Supervisors of Gambling Services Workers	• Gambling Service Workers • Gambling & Sports Book Writers & Runners • Supervisors of Gambling Service Workers • Bartenders • Food Servers, Nonrestaurant	• Gambling Service Workers • Gambling & Sports Book Writers & Runners • Gambling Cage Workers • Gambling Change Persons & Booth Cashiers • Supervisors of Gambling Service Workers	• Gambling Service Workers, All Other • Telephone Operators • Food Servers, Nonrestaurant • Receptionists & Information Clerks • Billing & Posting Clerks

High Location Quotient (LQ) Occupations for Business, Management, and Administration, Minnesota 2023Q2

1) Gambling Service Workers, All Other (8.41)
2) Gambling & Sports Book Writers & Runners (3.40)
3) Chief Executives (1.77)
4) Food Servers, Nonrestaurant (1.75)
5) Actuaries (1.66)

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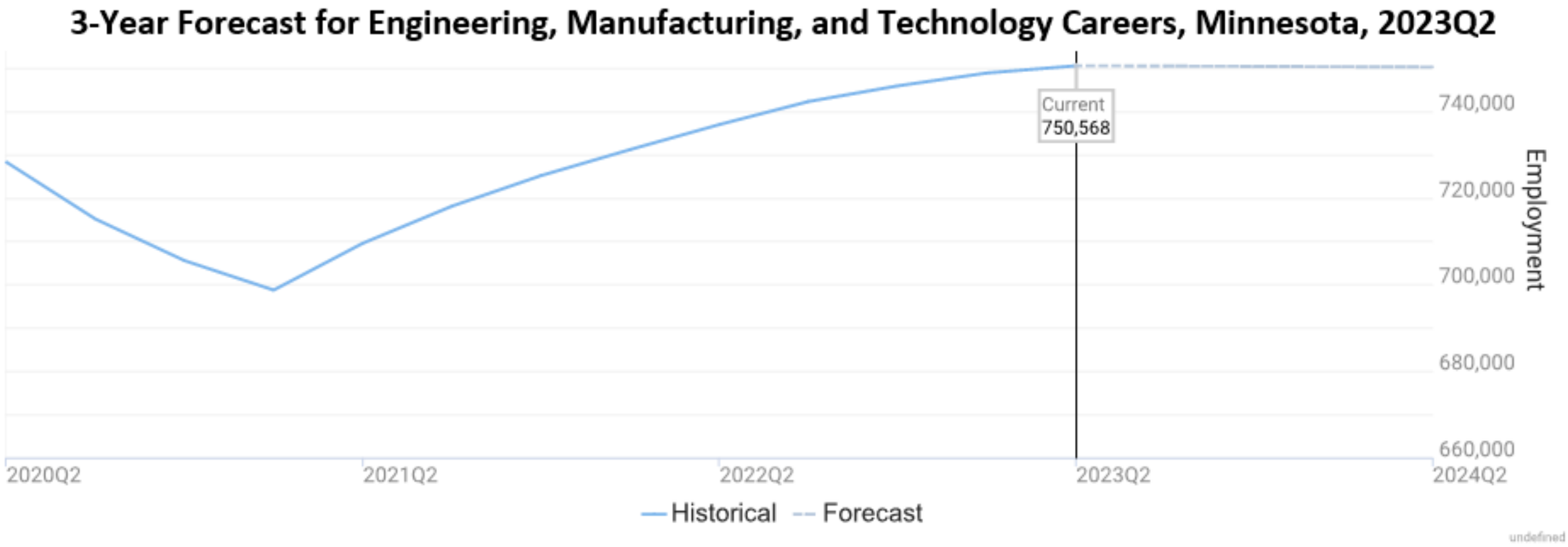
Chmura Economics JobsEQ, 2023Q2 dataset.

Engineering, Manufacturing, & Technology

Minnesota



2023Q2 Employment: 750,568 (24.4% of MN employment)
Average Wage: $61,600 (compared to $66,100 across all occupations)
Location Quotient: 1.00

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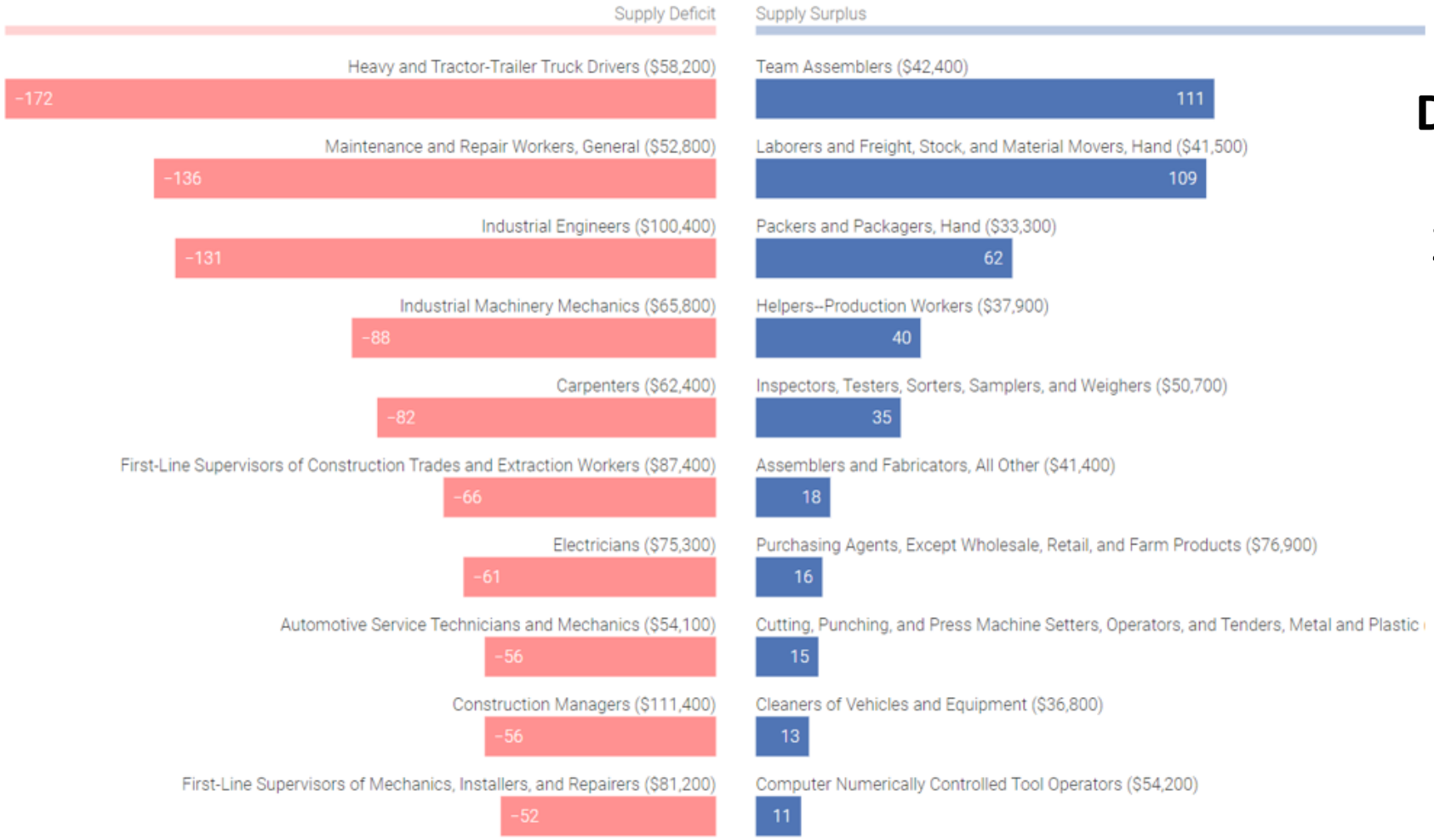
Chmura Economics JobsEQ, 2023Q2 dataset.

Engineering, Manufacturing, & Technology

Minnesota

Annual Average Occupation Gaps (i.e. Talent Shortages) for the next 10 Years in Engineering, Manufacturing, and Technology, Minnesota, 2023Q2



Demographic Highlight

24.9% Age 55 or older

81.4% Male

85.3% White

7.6% Hispanic/Latinx

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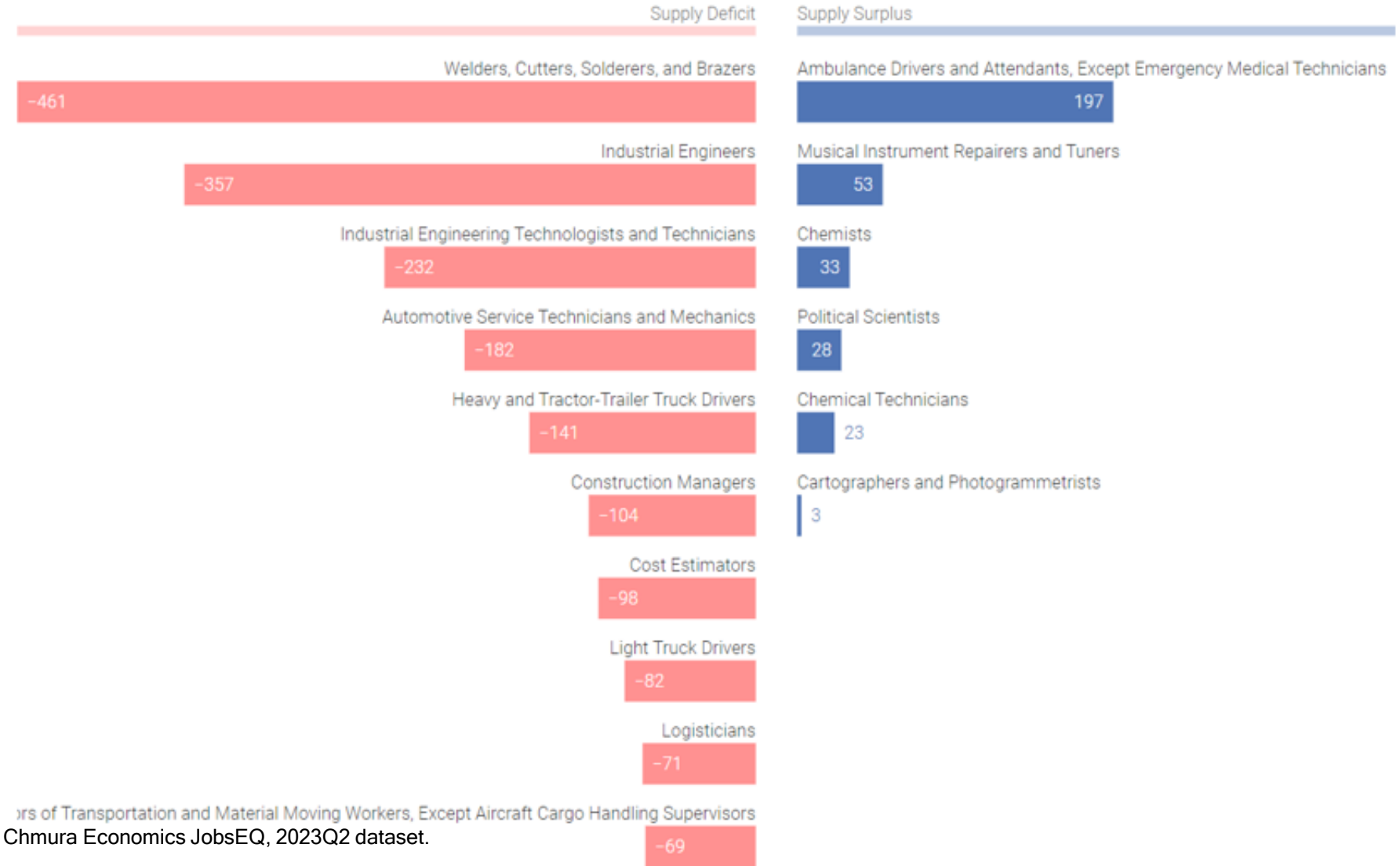
Chmura Economics JobsEQ, 2023Q2 dataset.

Engineering, Manufacturing, & Technology

Minnesota

Award Gaps in Engineering, Manufacturing, and Technology, Minnesota, 2023Q2



Chmura Economics JobsEQ, 2023Q2 dataset.

2023Q2 Unemployment: 25,276 (3.4% unemployment rate)
30-Day Job Ads: 28,559 (compared to 148,113 across all occupations)
5-Year Ann Avg Employment Change: 0.5%
Forecast 5-Year Ann Employment Change: 0.0%
Total 5-Year Demand: 404,156

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Engineering, Manufacturing, & Technology

Minnesota, 2023Q2

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Target Occupations (all HW, HD, HS, OG)
Industrial Engineers (AG)
Construction Managers (AG)
Mechanical Engineers (AG)
HVAC Mechanics & Installers
Civil Engineers (AG)

Gateway Occupations
Heavy & Tractor Trailer Drivers (HS, HD, OG, AG)
Maintenance and Repair Workers, General (HD, OG)
Construction Laborers (HD)
Light Truck Drivers (HD, AG)
Carpenters (OG)

Origin Occupations
Laborers & Freight, Stock Movers (HD)
Team Assemblers
Landscaping & Groundskeeping Workers (HD)
Packers & Packagers, Hand
Packaging & Filling Machine Operators & Tenders (HD, OG)

Engineering, Manufacturing, & Technology

Minnesota

Origin-to-Gateway-to-Target Occupations for Engineering, Manufacturing, and Technology, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Avg. Wage	Region: $70,700 Field: $65,600	Region: $57,900 Field: $60,500	Region: $53,400 Field: $55,600	Region: $57,400 Field: $56,000	Region: $56,500 Field: $53,800	Region: $68,000 Field: $56,700
Unempl	Region: 2.6% Field: 3.1%	Region: 3.9% Field: 4.4%	Region: 3.2% Field: 3.7%	Region: 3.4% Field: 3.7%	Region: 2.9% Field: 3.3%	Region: 2.4% Field: 2.9%
Origin Occupations	• Team Assemblers • Landscaping & Groundskeeping Workers • Packers & Packagers • Packaging & Filling Machine Operators • Cleaners of Vehicles & Equipment	• Laborers & Stock Movers • Landscaping & Groundskeeping Workers • Team Assemblers • Packers & Packagers, Hand • Shuttle Drivers & Chauffeurs	• Laborers & Stock Movers • Team Assemblers • Landscaping & Groundskeeping Workers • Food Batchmakers • Packaging & Filling Machine Operators	• Laborers & Stock Movers • Team Assemblers • Landscaping & Groundskeeping Workers • School Bus Drivers • Packaging & Filling Machine Operators & Tenders	• Laborers & Stock Movers • Team Assemblers • Landscaping & Groundskeeping Workers • Packaging & Filling Machine Operators • Slaughterers & Meat Packers	• Laborers & Stock Movers • Team Assemblers • Landscaping & Groundskeeping Workers • Slaughterers & Meat Packers • Meat, Poultry, & Fish Cutters
Gateway Occupations	• Laborers & Stock Movers • Heavy & Tractor Trailer Drivers • Maintenance & Repair Workers, General • Construction Laborers • Light Truck Drivers	• Construction Laborers • Maintenance & Repair Workers, General • Heavy & Tractor-Trailer Truck Drivers • Carpenters • Light Truck Drivers	• Heavy & Tractor-Trailer Truck Drivers • Construction Laborers • Maintenance & Repair Workers, General • Carpenters • Light Truck Drivers	• Heavy & Tractor Trailer Truck Drivers • Construction Laborers • Maintenance & Repair Workers, All Other • Light Truck Drivers • Automotive Service Techs	• Heavy & Tractor Trailer Drivers • Maintenance & Repair Workers, All Other • Construction Laborers • Light Truck Drivers • Carpenters	• Heavy & Tractor Trailer Drivers • Maintenance & Repair Workers, General • Construction Laborers • Carpenters • Automotive Service Techs
Target Occupations	• Industrial Engineers • Construction Managers • Mechanical Engineers • HVAC Mechanics • Architectural & Engineering Managers	• Construction Managers • Industrial Engineers • HVAC Mechanics • Civil Engineers • Mechanical Engineers	• Industrial Engineers • Construction Managers • HVAC Mechanics • Mechanical Engineers • Civil Engineers	• Industrial Engineers • Construction Managers • HVAC Mechanics • Mechanical Engineers • Civil Engineers	• Industrial Engineers • Construction Managers • Mechanical Engineers • HVAC Mechanics • Electrical Engineers	• Industrial Engineers • Construction Managers • Mechanical Engineers • Electrical Engineers • Logisticians

Chmura Economics JobsEQ, 2023Q2 dataset.

Engineering, Manufacturing, & Technology

Minnesota

High Location Quotient (LQ) Occupations for Engineering, Manufacturing, and Technology, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
LQ > 1.20	• Ophthalmic Laboratory Technicians • Industrial Engineering Techs • Medical Appliance Techs • Timing Device Assemblers & Adjusters • Photographic Process Workers & Processing Machine Operators	• Underground Mining Machine Operators, All Other • Loading & Moving Machine Operators, Underground Mining • Mining Machine Operators • Other Extraction Workers • Rail Yard Engineers	• Fiberglass Laminators & Fabricators • Slaughterers & Meat Packers • Food & Tobacco Machine Operators • Woodworking Machine Operators • Food Batchmakers	• Nuclear Power Reactor Operators • Nuclear Technicians • Recreational Vehicle Service technicians • Cabinetmakers & Bench Carpenters • Nuclear Engineers	• Shoe Machine Operators • Slaughterers & Meat Packers • Shoe & Leather Workers • Meat, Poultry, & Fish Cutters & Trimmers • Food Cooking Machine Operators & Tenders	• Slaughterers & Meat Packers • Meat, Poultry, & Fish Cutters • Ambulance Drivers, Except EMTs • Food Processing Workers • Food Cooking Machine Operators

High Location Quotient (LQ) Occupations for Engineering, Manufacturing, and Technology, Minnesota 2023Q2

1) Underground Mining Machine Operators, All Other (4.30)
2) Ophthalmic Laboratory Technicians (2.83)
3) Shoe Machine Operators & Tenders (2.81)
4) Industrial Engineering Technologists & Technicians (2.75)
5) Slaughterers & Meat Packers (2.64)

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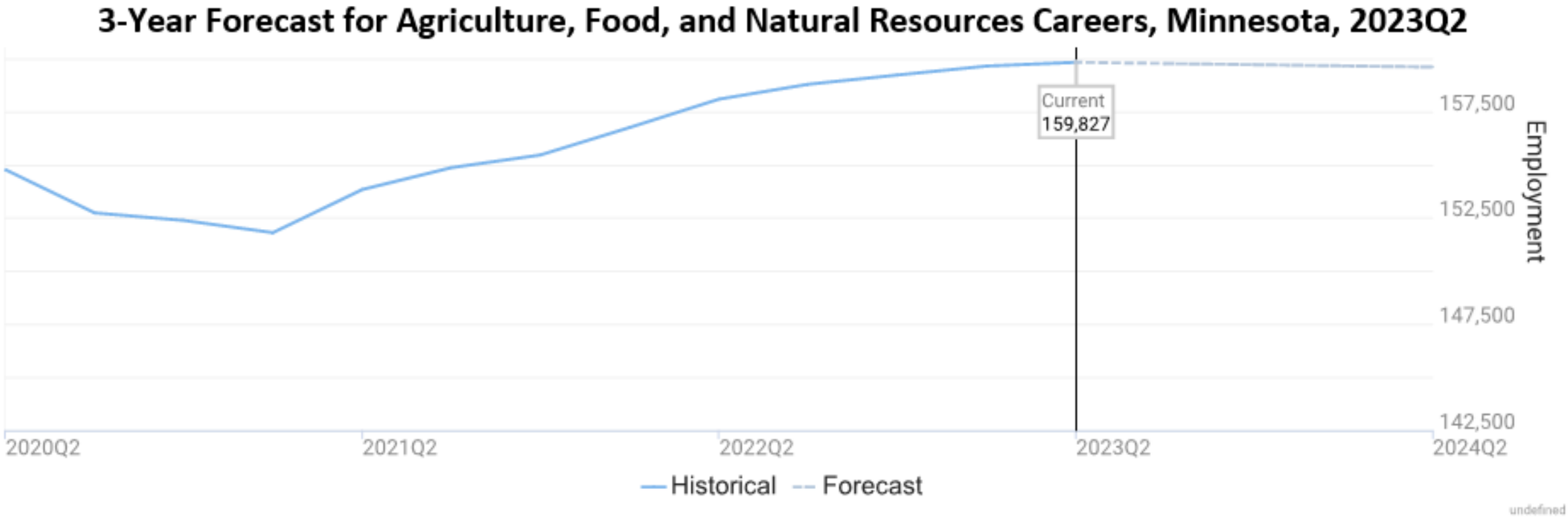
Chmura Economics JobsEQ, 2023Q2 dataset.

Agriculture, Food, & Natural Resources

Minnesota



2023Q2 Employment: 159,827 (5.2% of MN employment)
Average Wage: $60,900 (compared to $66,100 across all occupations)
Location Quotient: 1.00

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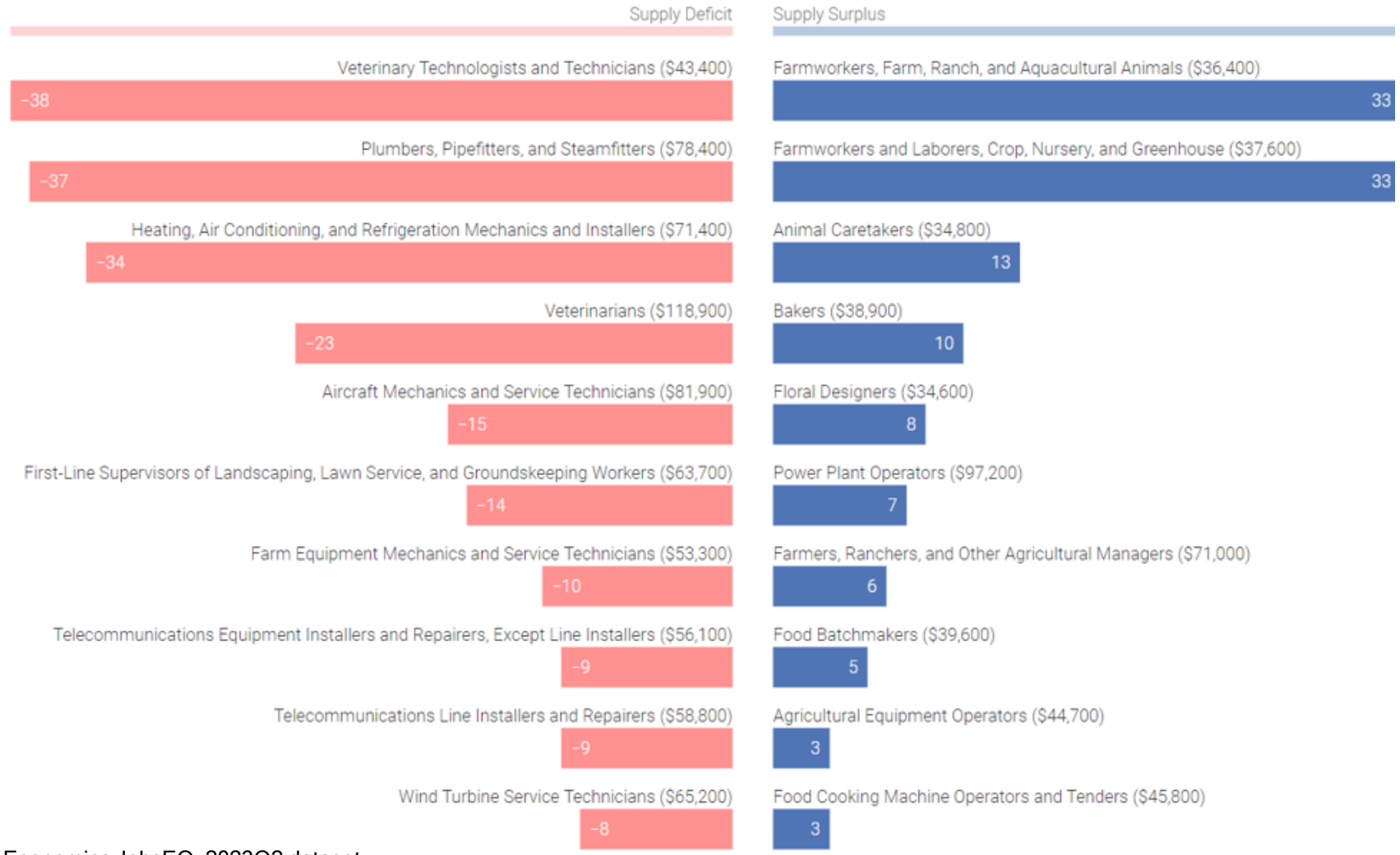
Agriculture, Food, & Natural Resources

Minnesota

Annual Average Occupation Gaps (i.e. Talent Shortages) for the next 10 Years in Agriculture, Food, and Natural Resources, Minnesota, 2023Q2



Demographic Highlight

28.5% Age 55 or older

73.2% Male

89.0% White

7.9% Hispanic/Latinx

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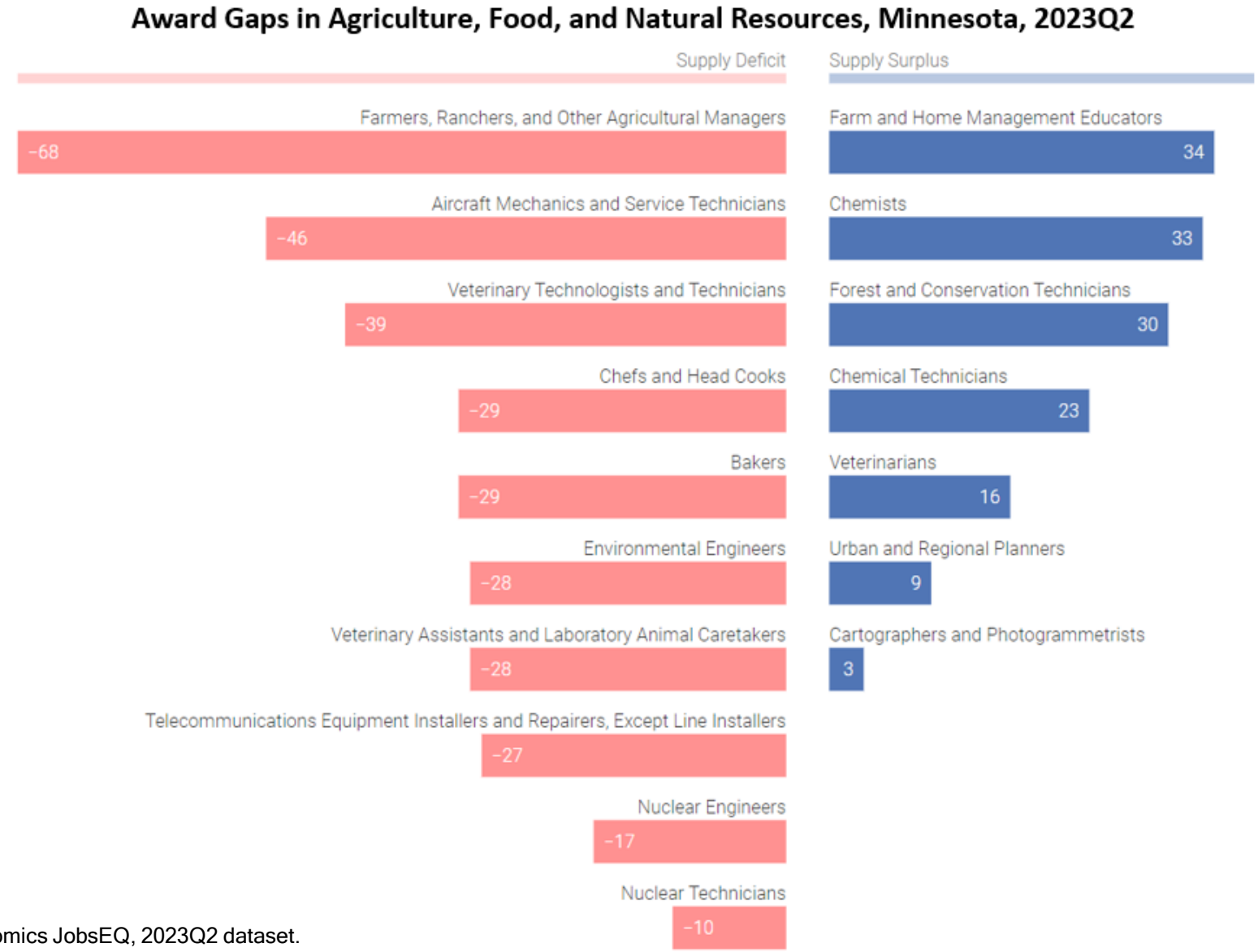
Chmura Economics JobsEQ, 2023Q2 dataset.

Agriculture, Food, & Natural Resources

Minnesota



2023Q2 Unemployment: 4,512 (2.8% unemployment rate)
30-Day Job Ads: 5,175 (compared to 148,113 across all occupations)
5-Year Ann Avg Employment Change: 0.3%
Forecast 5-Year Ann Employment Change: -0.2%
Total 5-Year Demand: 93,377

Chmura Economics JobsEQ, 2023Q2 dataset.

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Agriculture, Food, & Natural Resources

Minnesota, 2023Q2

Target Occupations (All HW, HS, HD, OG)
HVAC Mechanics & Installers
Aircraft Mechanics & Service Technicians (AG)
Veterinarians
Chemists
Environmental Scientists & Specialists (AG)

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Gateway Occupations (All HD)
Supervisors of Groundskeeping Workers (OG)
Chefs & Head Cooks (AG)
Telecommunications Equipment Installers & Repairers (HS, OG AG)
Refuse & Recyclable Material Collectors (AG)
Farm Equipment Mechanics & Service Technicians (OG, AG)

Origin Occupations
Landscaping & Groundskeeping Workers (HD)
Farmworkers & Laborers, Crop, Nursery, & Greenhouse (AG)
Food Batchmakers (HD, AG)
Animal Caretakers (HD, AG)
Farmworkers, Farm, Ranch, & Aquacultural Animals

Agriculture, Food, & Natural Resources

Minnesota

Origin-to-Gateway-to-Target Occupations for Agriculture, Food, and Natural Resources, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
Avg. Wage	Region: $70,700 Field: $66,600	Region: $57,900 Field: $58,800	Region: $55,600 Field: $53,900	Region: $57,400 Field: $57,300	Region: $56,500 Field: $54,900	Region: $68,000 Field: $58,400
Unempl	Region: 2.6% Field: 2.8%	Region: 3.9% Field: 3.6%	Region: 3.2% Field: 2.9%	Region: 3.4% Field: 3.0%	Region: 2.9% Field: 2.6%	Region: 2.4% Field: 2.3%
Origin Occupations	• Landscaping & Groundskeeping Workers • Animal Caretakers • Food Batchmakers • Bakers • Farmworkers & Laborers	• Landscaping & Groundskeeping Workers • Animal Caretakers • Refuse & Recyclable Material Collectors • Veterinary Technicians • Bakers	• Landscaping & Groundskeeping Workers • Farmworkers & Laborers • Food Batchmakers • Meat, Poultry, & Fish Cutters • Farmworkers, Farm, Ranch & Aquacultural Animals	• Landscaping & Groundskeeping Workers • Farmworkers, Farm, Ranch, & Aquacultural Animals • Farmworkers & Laborers • Meat, Poultry, & Fish Cutters • Food Batchmakers	• Farmworkers, Farm, Ranch, & Aquacultural Animals • Landscaping & Groundskeeping Workers • Farmworkers & Laborers • Meat, Poultry, & Fish Cutters • Food Batchmakers	• Landscaping & Groundskeeping Workers • Meat, Poultry, & Fish Cutters • Farmworkers, Farm, Ranch, & Aquacultural Animals • Farmworkers & Laborers • Animal Caretakers
Gateway Occupations	• Veterinary Technicians • Supervisors of Groundskeeping Workers • Chefs & Head Cooks • Telecommunications Equipment Installers • Refuse & Recyclable Material Collectors	• Logging Equipment Operators • Chefs & Head Cooks • Tree Trimmers & Pruners • Outdoor Power Equipment & Other Small Engine Mechanics • Forest & Conservation Technicians	• Farm Equipment Mechanics • Chefs & Head Cooks • Refuse & Recyclable Material Collectors • Logging Equipment Operators • Tree Trimmers & Pruners	• Farm Equipment Mechanics • Refuse & Recyclable Material Collectors • Chefs & Head Cooks • Tree Trimmers & Pruners • Food Cooking Machine Operators	• Farm Equipment Mechanics & Service Technicians • Refuse & Recyclable Material Collectors • Supervisors of Farming, Fishing, & Forestry Workers • Chefs & Head Cooks • Food & Tobacco Roasting Machine Operators	• Food Batchmakers • HVAC Mechanics • Supervisors of Landscaping Workers • Telecommunications Equipment Installers • Chefs & Head Cooks
Target Occupations	• HVAC Technicians • Chemists • Environmental Scientists • Veterinarians • Natural Sciences Managers	• HVAC Technicians • Telecommunications Equipment Installers • Aircraft Mechanics • Chemical Technicians • Surveyors	• HVAC Technicians • Telecommunications Equipment Installers • Urban & Regional Planners • Biological Science Teachers, Postsecondary • Aircraft Mechanics	• HVAC Mechanics • Telecommunications Equipment Installers • Nuclear Engineers • Chemists • Life, Physical, & Social Science Technicians	• HVAC Mechanics • Telecommunications Equipment Installers • Chemists • Biological Science Teachers, Postsecondary • Life & Physical Science Techs	• Natural Sciences Managers • Aircraft Mechanics • Life, Physical, & Social Science Technicians, All Other • Biological Science Teachers, Postsecondary • Conservation Scientists

Chmura Economics JobsEQ, 2023Q2 dataset.

Agriculture, Food, & Natural Resources

Minnesota

High Location Quotient (LQ) Occupations for Agriculture, Food, and Natural Resources, By Region 2023Q2

	MSP Metro	Northeast	Northwest	Central	Southwest	Southeast
LQ > 1.20	• Hydrologists • Animal Scientists • Foresters • Stationary Engineers & Boiler Operators • Food Scientists & Technologists	• Mining & Geological Engineers • Logging Equipment Operators • Logging Workers, Other • Fallers • Foresters	• Farmers & Ranchers • Farm Equipment Mechanics • Food Cooking Machine Operators • Animal Scientists • Food Batchmakers	• Nuclear Power Reactor Operators • Nuclear Technicians • Animal Breeders • Farmworkers, Farm, Ranch, & Aquacultural Animals • Animal Scientists	• Farmers & Ranchers • Farmworkers, Farm, Ranch & Aquacultural Animals • Landscaping & Groundskeeping Workers • Farmworkers & Laborers • Meat, Poultry, & Fish Cutters	• Meat, Poultry, & Fish Cutters • Farmworkers, Farm Ranch & Aquacultural Animals • Animal Breeders • Food & Tobacco Machine Operators & Tenders • Farmers & Ranchers

High Location Quotient (LQ) Occupations for Agriculture, Food, and Natural Resources, Minnesota 2023Q2

1) Animal Scientists (2.97)
2) Foresters (2.07)
3) Hydrologists (2.07)
4) Food Cooking Machine Operators & Tenders (2.06)
5) Farm Equipment Mechanics & Service Technicians (2.05)

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Summary and Discussion

Discussion Question 1

What piece of the data surprised, inspired, validated, or challenged you?

Discussion Question 2

From your perspective, what are the most important considerations in these data for Career and Technical Education programs?

Discussion Question 3

What is one barrier that you can help remove for BIPOC students?

Discussion Question 4

What additional information will you seek out next?

Discussion Question 5

What changes or evaluations to your program will you prioritize next as a result of this data?

Thank you!

If you have questions about this report, please contact:
Erin Olson, Director of Strategic Research,
erin@realtimetalentmn.org

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Appendix