

# Workforce Trends

## For Career & Technical Education

### RealTime Talent

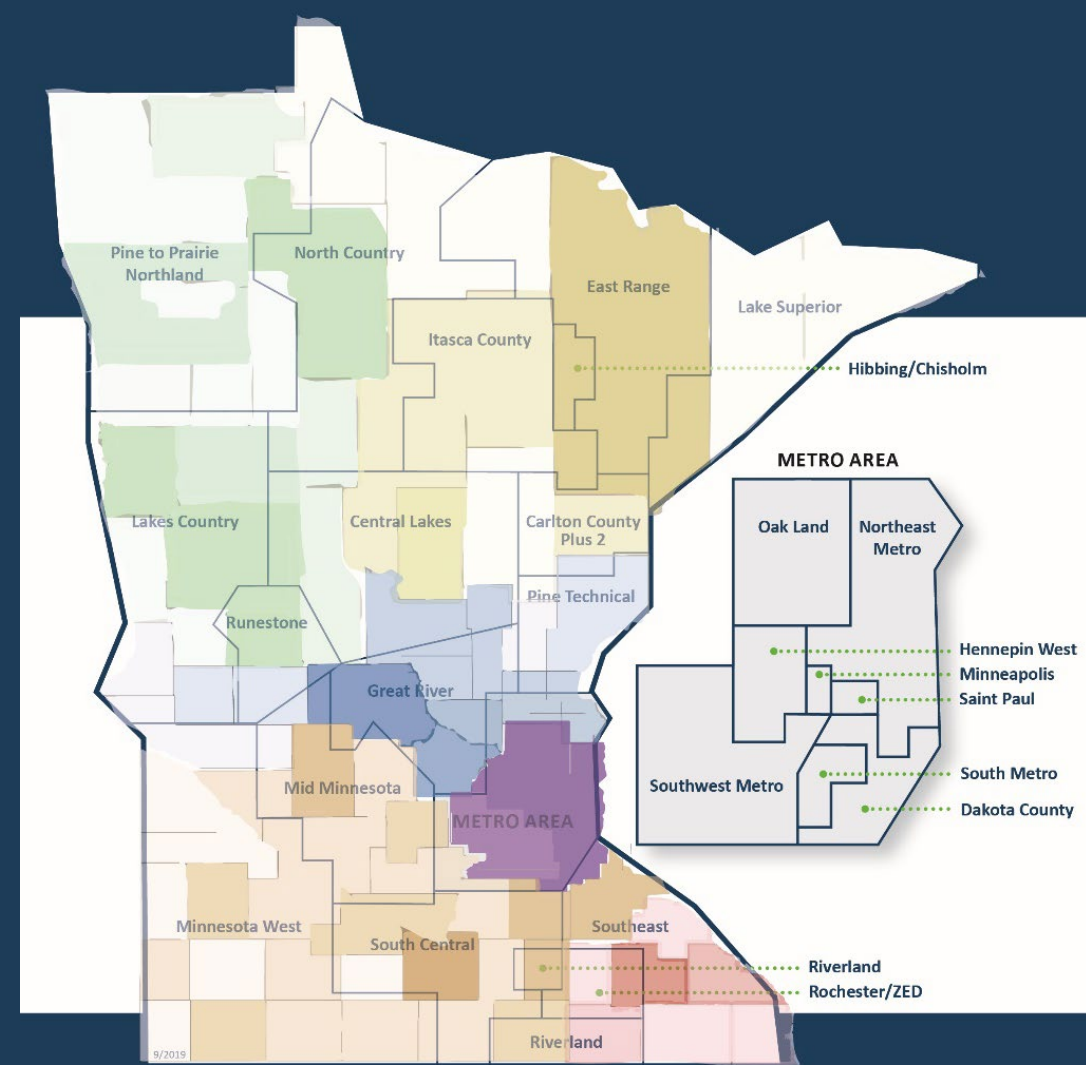
Erin Olson

Senior Director of Strategic Research

Julia Diaz

Research Analyst

December 6<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup> and 15<sup>th</sup> 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.



**RealTime Talent**

Using data to build the world's best workforce

## 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

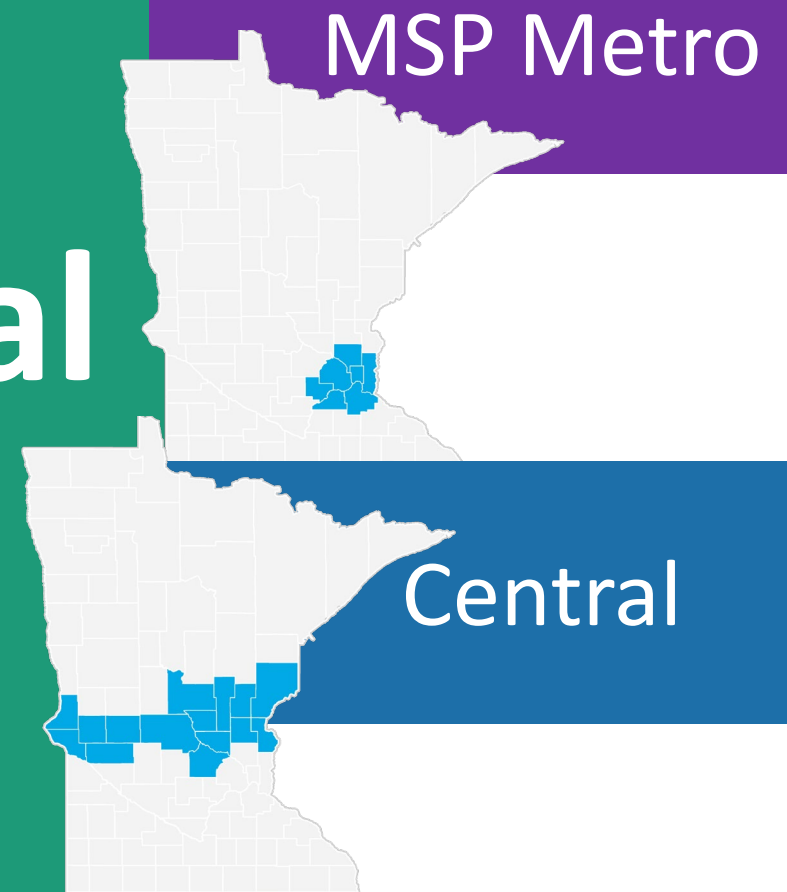
# MSP Metro & Central Minnesota

### RealTime Talent

Erin Olson, Senior Director of Strategic Research

Julia Diaz, Research Analyst

December 13, 2023



Access the full report here:

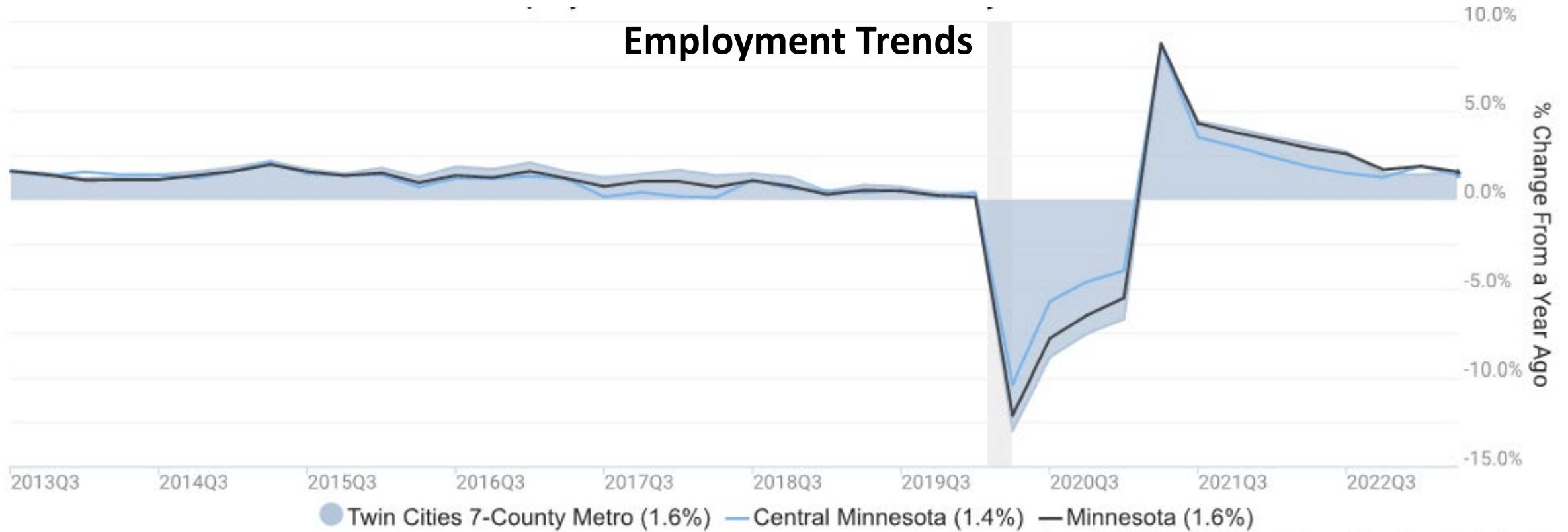
<http://www.realtimetalent.org>

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# Community Profile

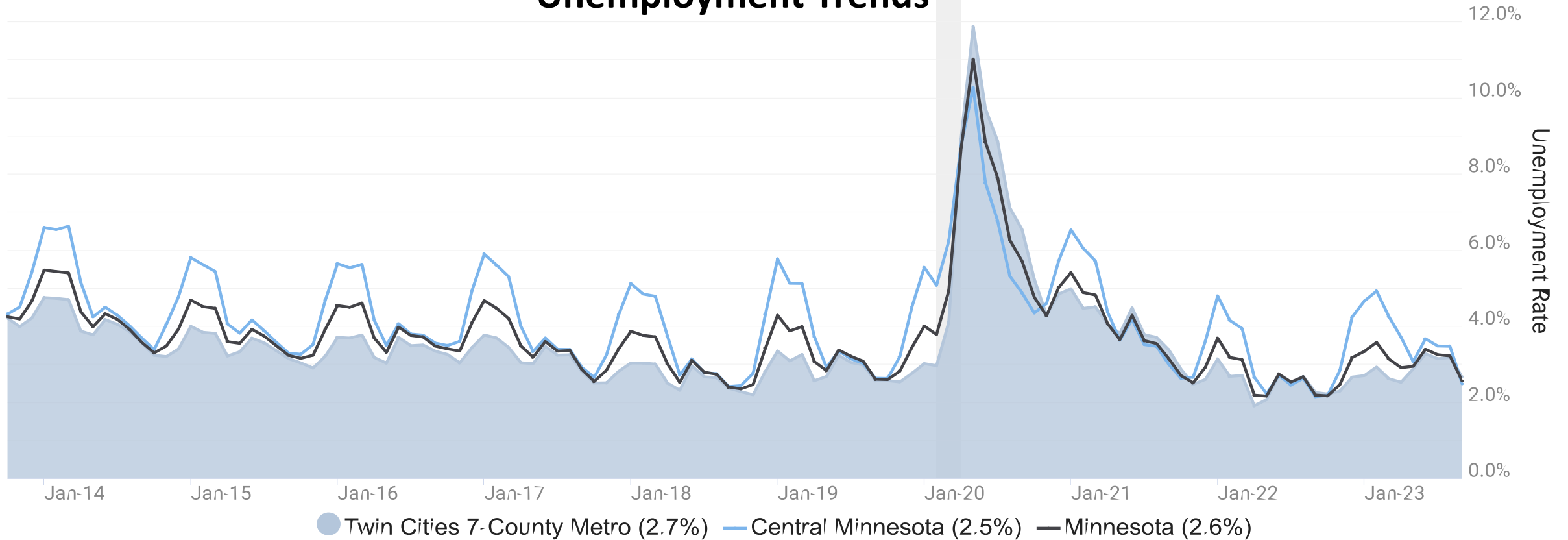
## MSP Metro Central



In 2022, GDP Expanded by 7.3% in the MSP Metro, and by 8.1% in the Central Region

# Community Profile

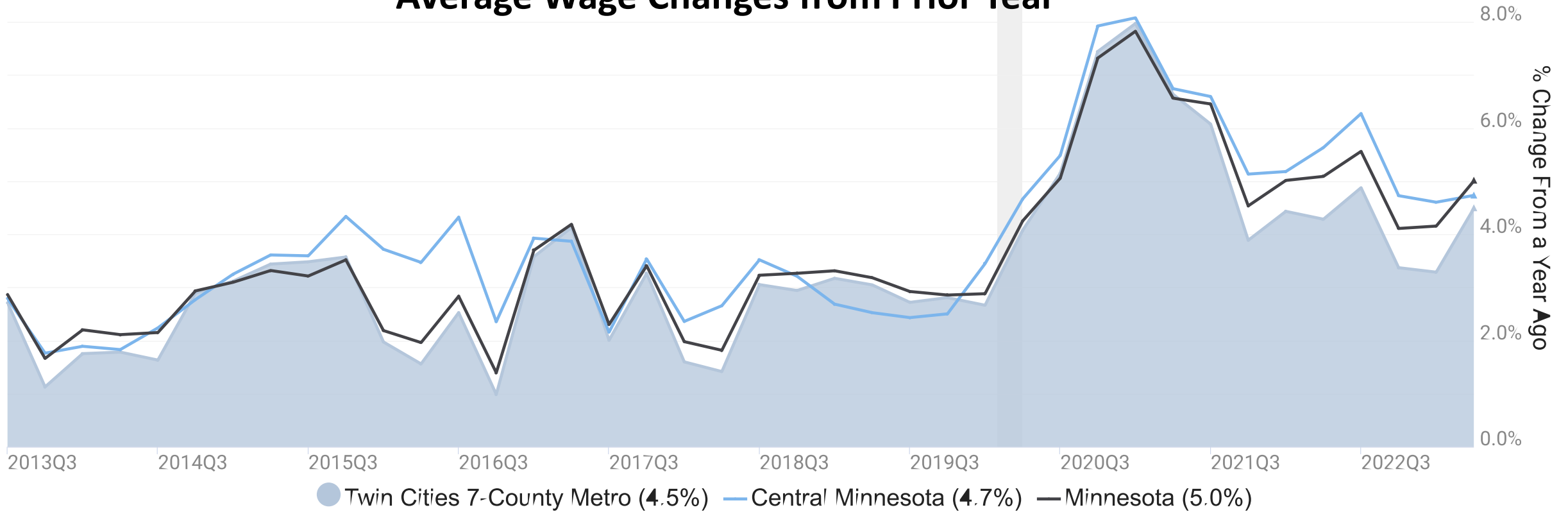
### Unemployment Trends



Source: JobsEQ®. Data as of Sep 2023. The shaded areas of the graph represent national recessions.

# Community Profile

### Average Wage Changes from Prior Year



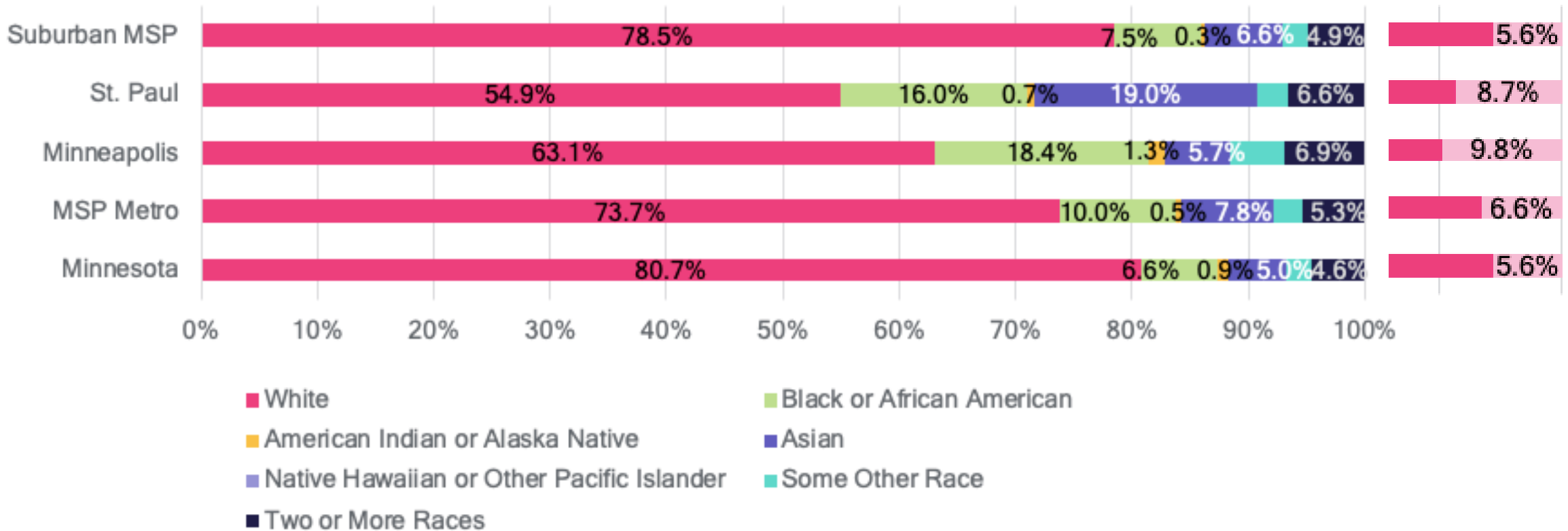
Source: JobsEQ®. Data as of 2023Q2. The shaded areas of the graph represent national recessions.

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.

# Population Demographics

Population Race, All Ages

Population of Hispanic/Latinx

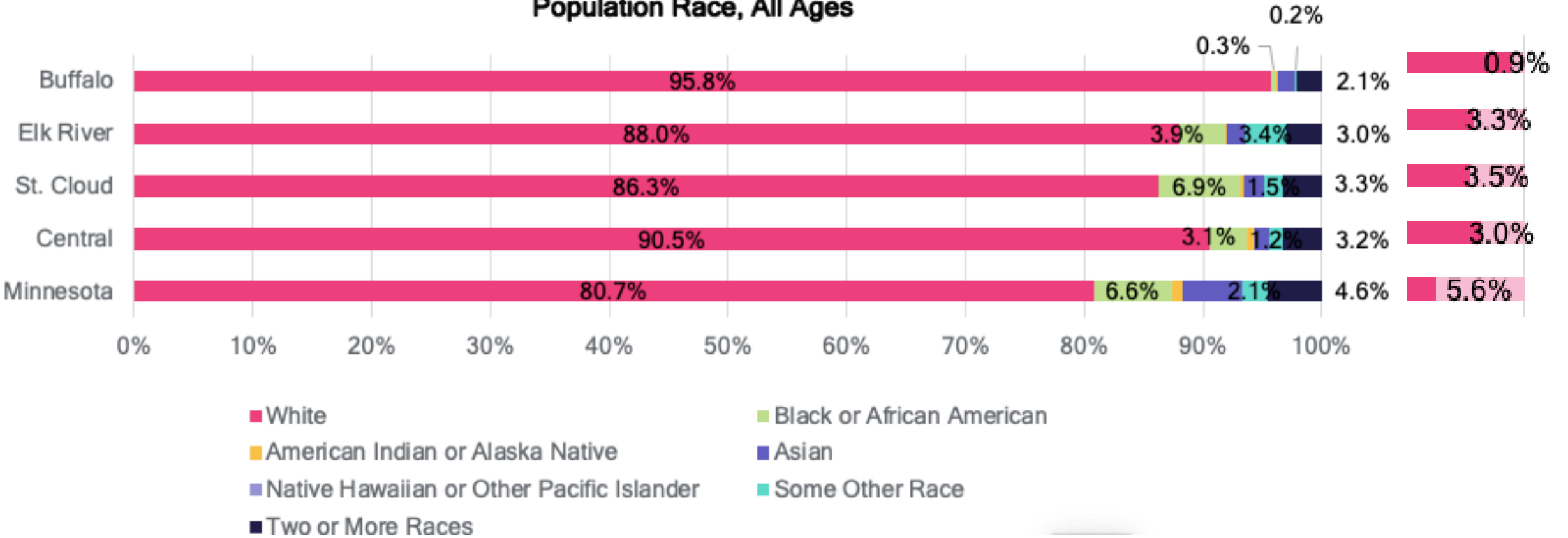


# Population Demographics

## Central

Population Race, All Ages

Population of Hispanic/Latinx

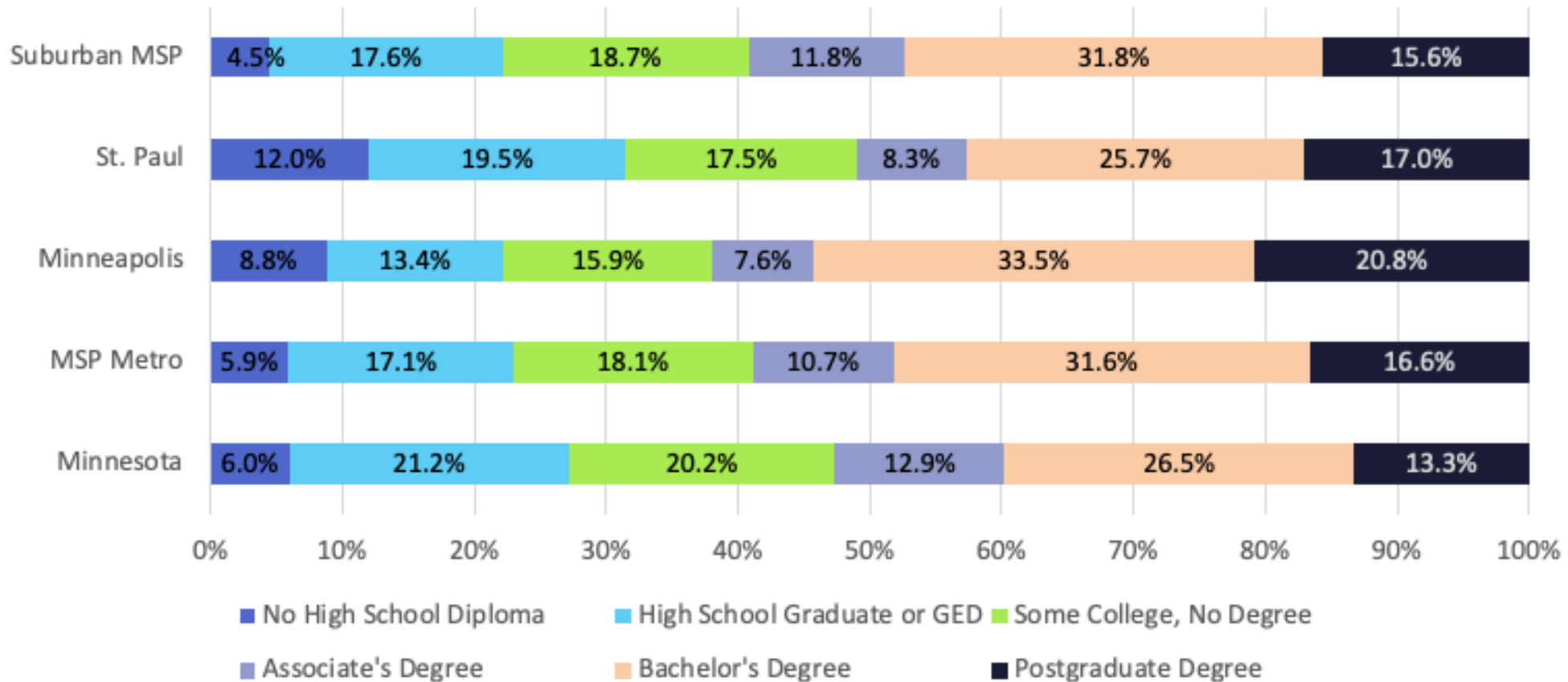




# Community Profile

## MSP Metro

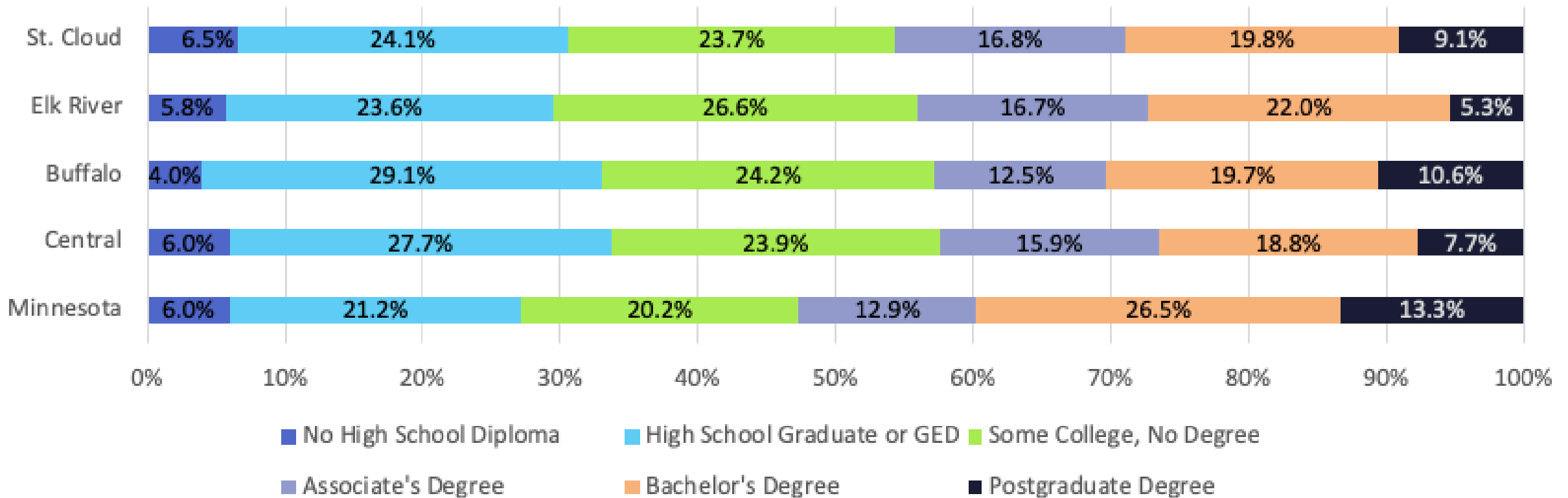
### Educational Attainment, Age 25-64



# Community Profile

Central

### Educational Attainment, Age 25-64



# Labor Market *Workforce Forecast*

MSP Metro

### 5-Year Forecast in MSP Metro Minnesota

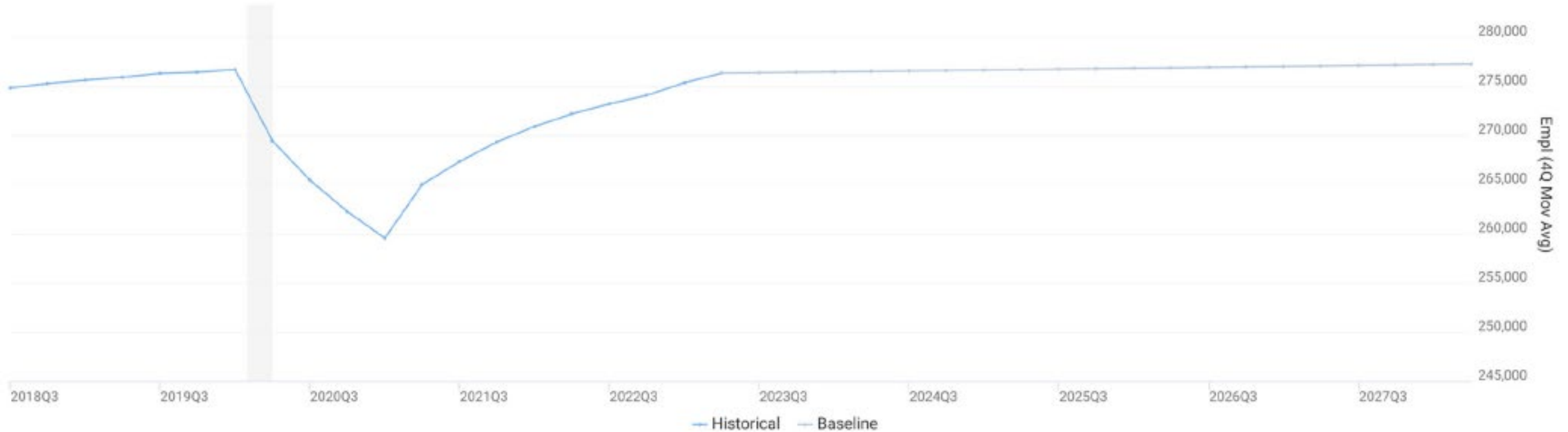


Employment is forecast to grow by 0.1% on average annually



# Labor Market *Workforce Forecast*

### 5-Year Forecast in Central Minnesota

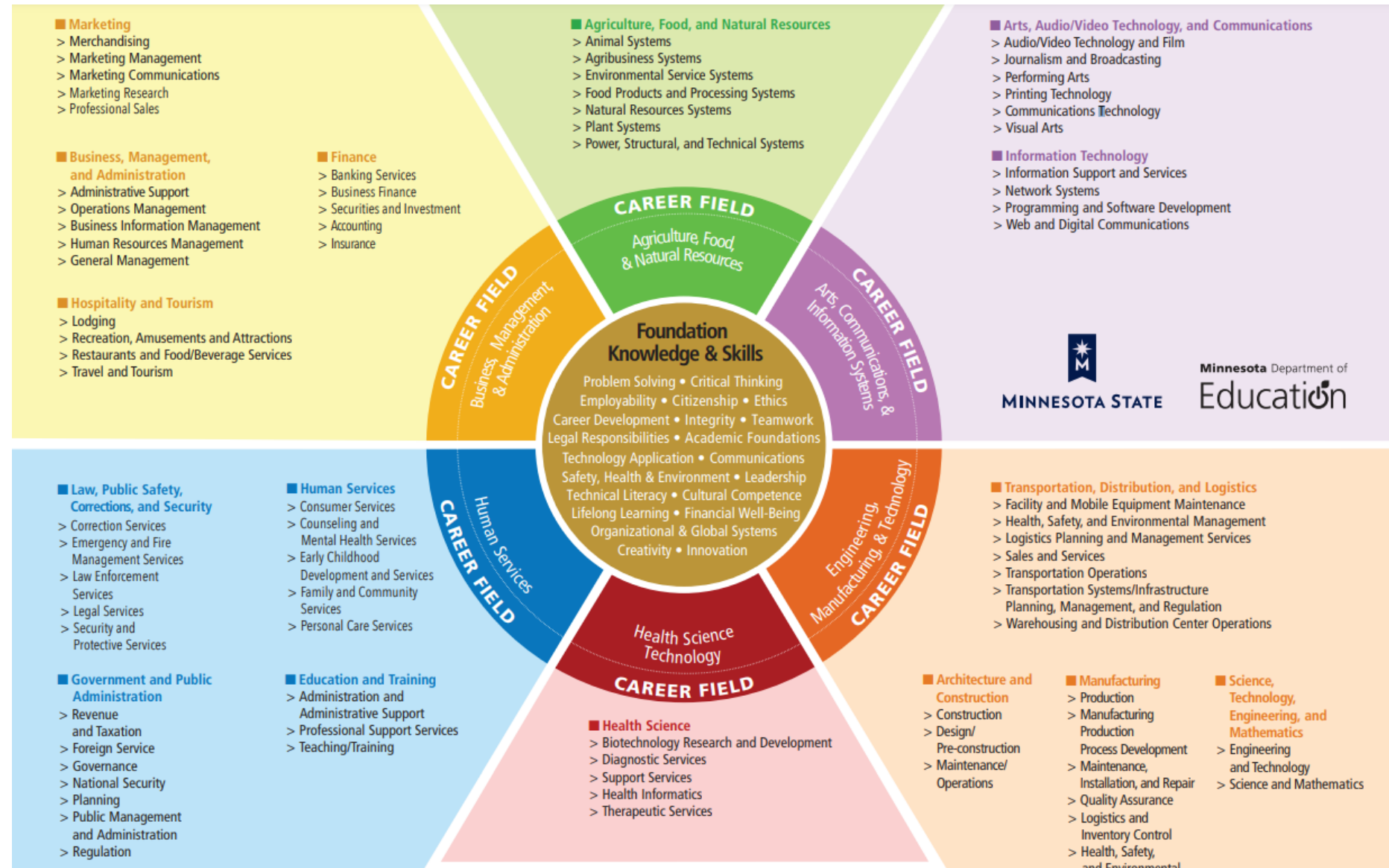


Employment is forecast to grow by 0.1% on average annually

# Polling Question

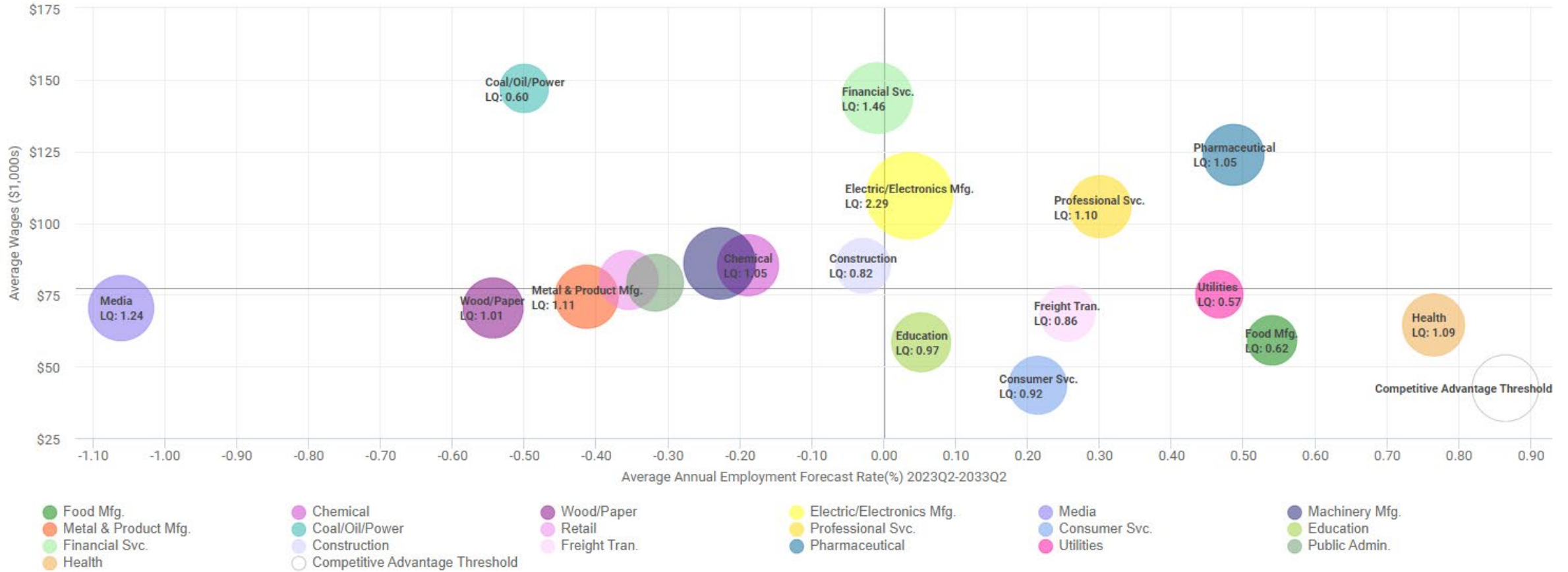
Which career pathways do you believe to be most important in the MSP Metro and Central Minnesota?

Why?



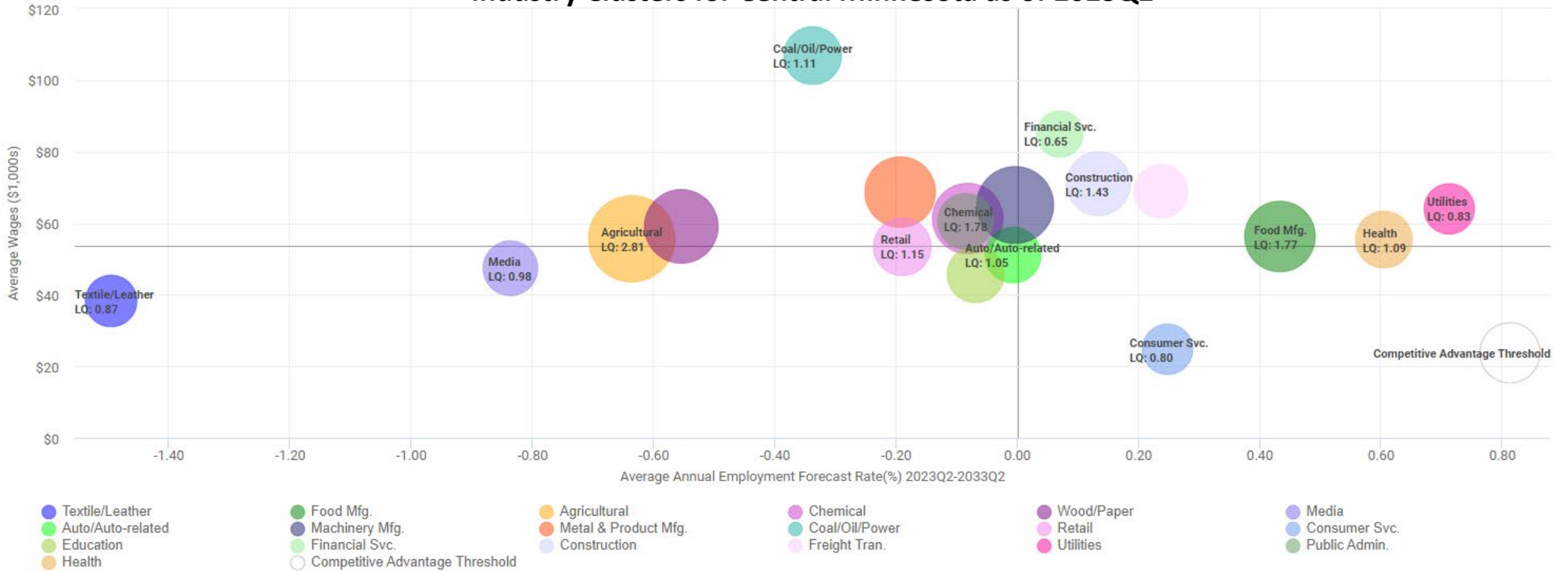
# Labor Market *Workforce Forecast*

Industry Clusters for MSP Metro Minnesota as of 2023Q2



# Labor Market *Workforce Forecast*

## Industry Clusters for Central Minnesota as of 2023Q2



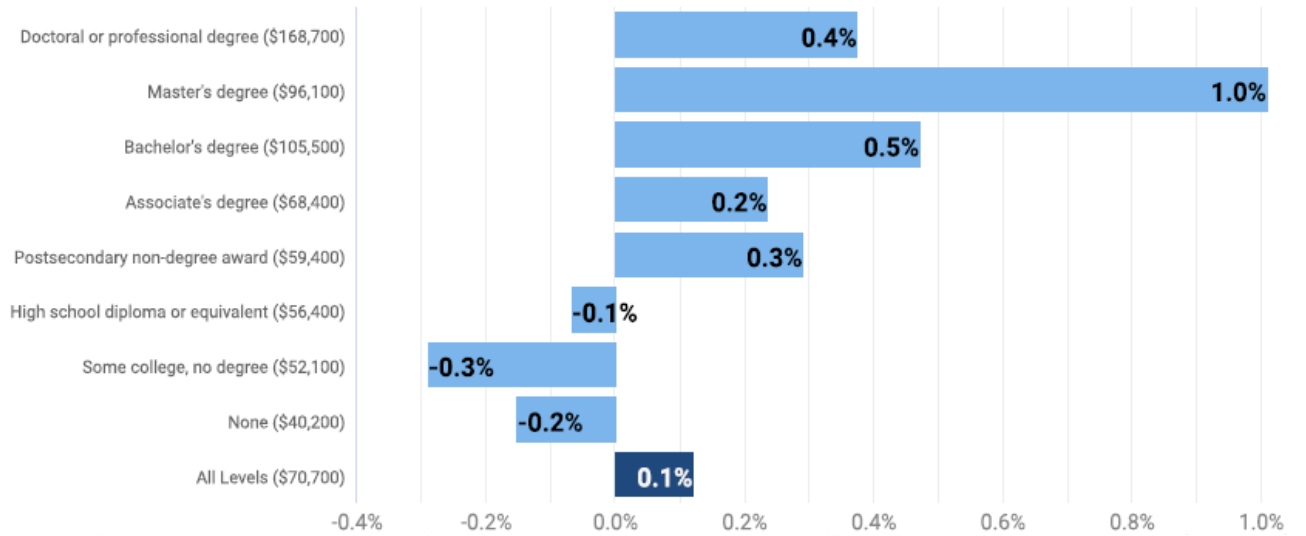


# Quantifying Talent Shortages

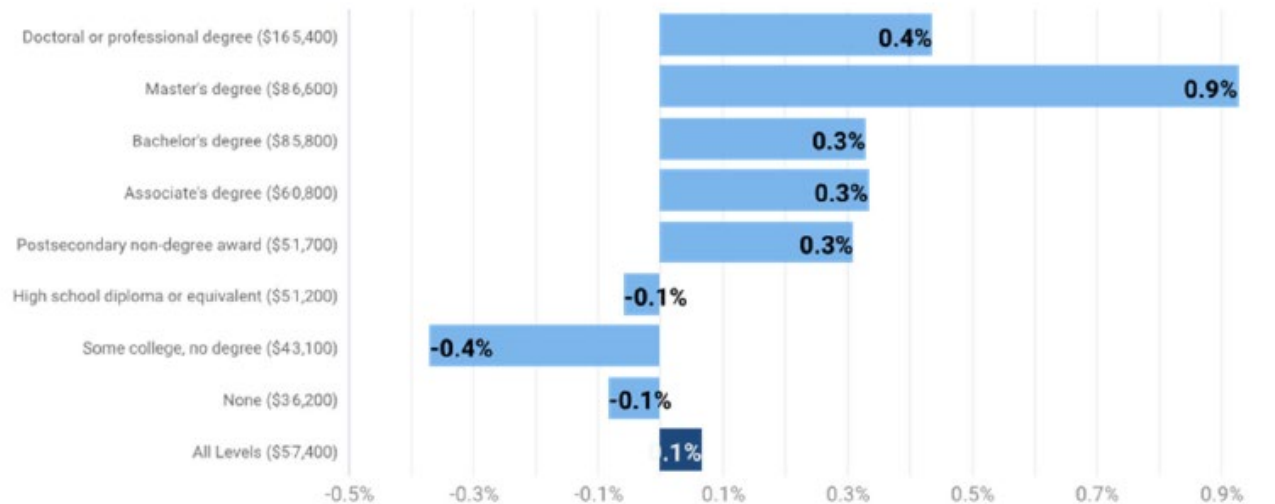
## Forecast

MSP Metro  
Central

Annual Average Projected Job Growth by Training Required for MSP Metro Minnesota, 2023Q2



Annual Average Projected Job Growth by Training Required for Central Minnesota, 2023Q2



MSP Metro  
unemployment rate:

**2.7%**

Central  
unemployment rate:

**2.5%**

\*As of 2023Q2

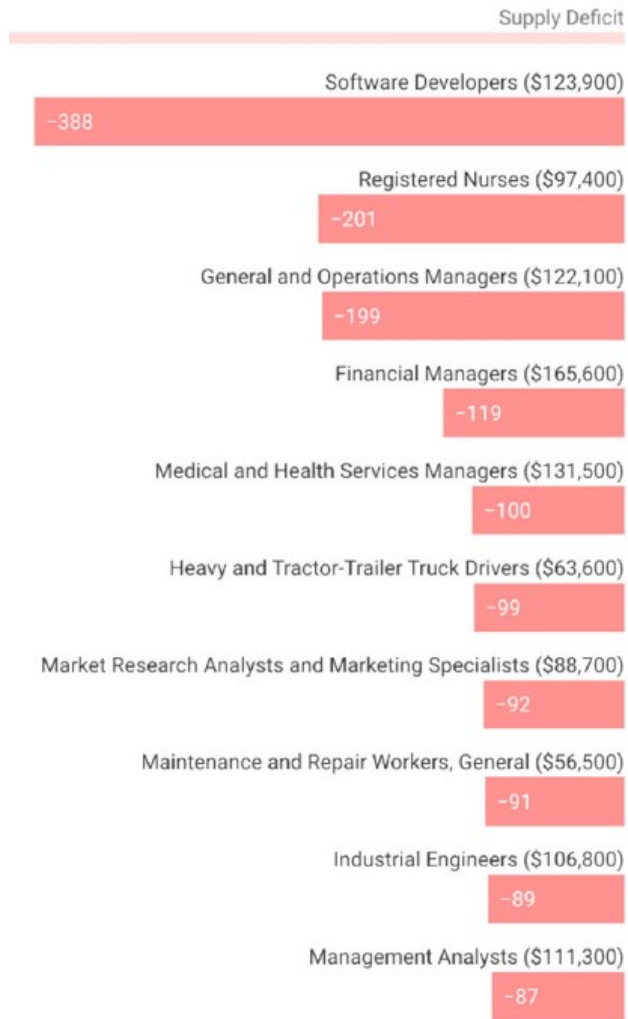




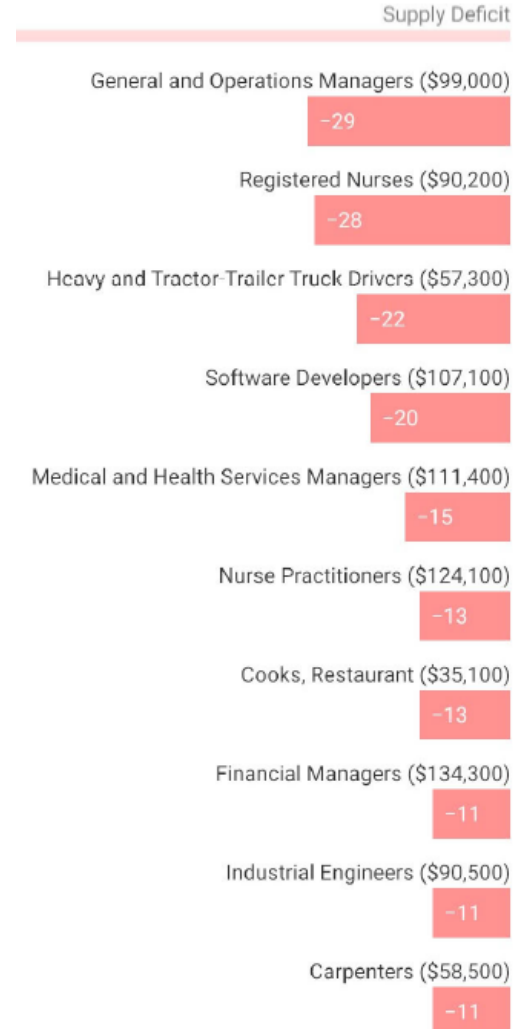
# Talent Shortage *Occupation Gaps*

## MSP Metro Central

### MSP Metro



### Central

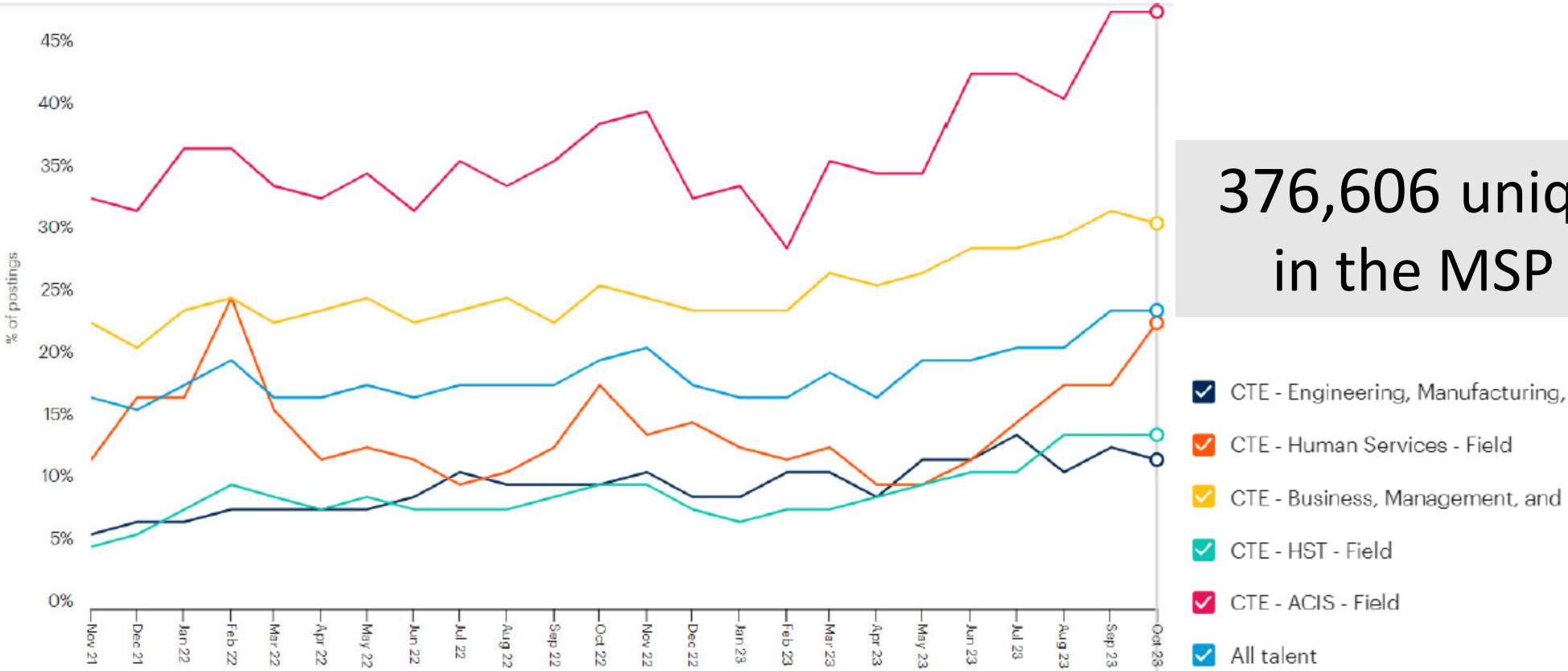


### New in 2023

- MSP Metro saw a rise in shortages for Industrial Engineers and Drivers
- Central Minnesota saw General and Operations Manager newly rank as the top occupation of shortage

# Emerging Career Paths

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



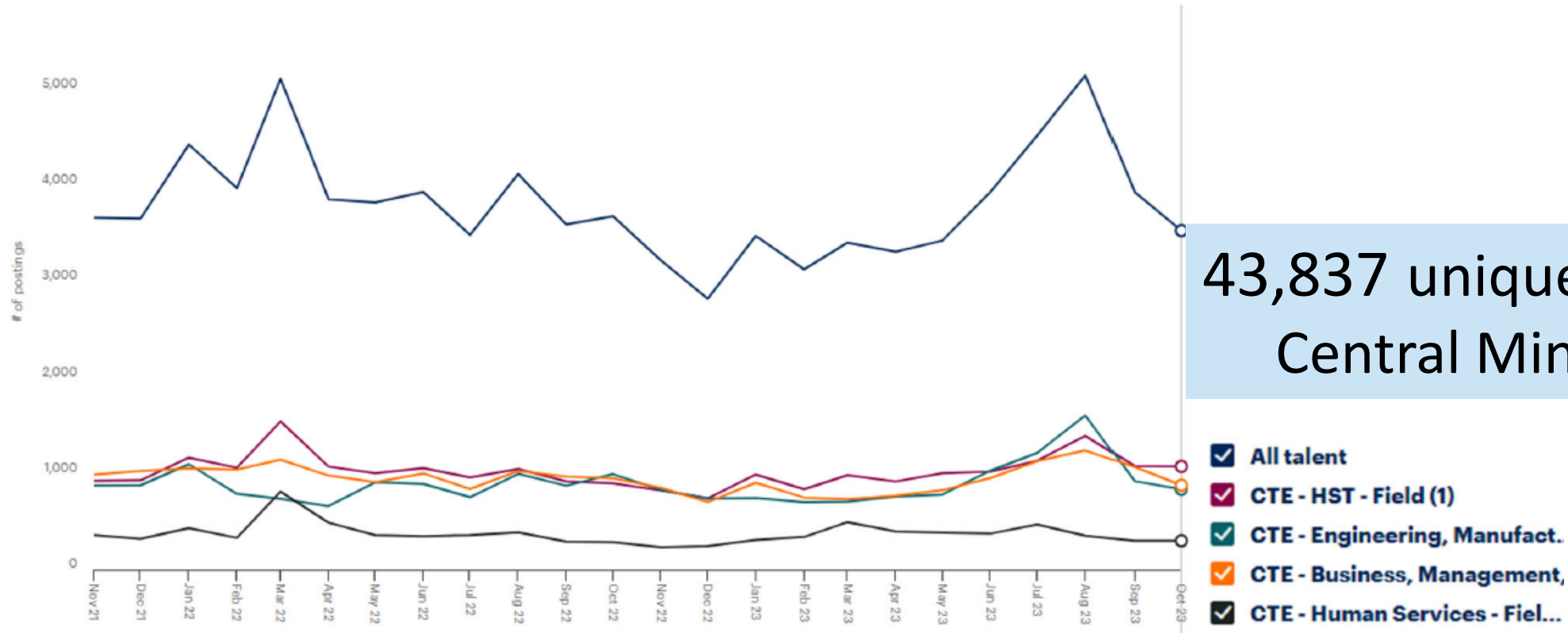
376,606 unique job postings in the MSP Metro (-15%)

SOURCE: Gartner TalentNeuron Plan accessed 11/22/2023

# Emerging Career Paths

## Central Minnesota

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



43,837 unique job postings in Central Minnesota (-7%)

SOURCE: Gartner TalentNeuron Plan accessed 11/14/2023

# Career Fields

## MSP Metro Minnesota

### CTE Field Employment and Wages in the MSP Metro Minnesota, 2023Q2<sup>1</sup>

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 9/25/2023- 10/25/2023 <sup>3</sup>	Empl Change	Ann %
Health Science Technology	166,466	\$40,600	\$90,500	0.99	2,607	1.7%	12,080	1,435	0.2%
Human Services	294,503	\$44,000	\$62,300	1.03	6,265	2.2%	11,304	10,007	0.7%
Arts, Communications, and Information Systems	102,426	\$65,100	\$95,800	1.20	1,980	2.0%	6,565	-2,715	-0.5%
Business, Management, and Administration	830,065	\$45,300	\$69,500	1.02	22,531	2.8%	37,684	-24,399	-0.6%
Engineering, Manufacturing, and Technology	428,655	\$47,600	\$65,600	0.95	12,212	3.1%	15,494	10,055	0.5%
Agriculture, Food, and Natural Resources*	69,422	\$46,800	\$66,600	0.72	1,817	2.8%	2,768	1,632	0.5%
<b>Total - All Occupations</b>	<b>1,840,095</b>	<b>\$34,700</b>	<b>\$70,700</b>	<b>1.00</b>	<b>46,166</b>	<b>2.6%</b>	<b>84,854</b>	<b>-5,142</b>	<b>-0.1%</b>

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

## Central Minnesota

### CTE Field Employment and Wages in Central Minnesota, 2023Q2<sup>1</sup>

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 9/25/2023- 10/25/2023 <sup>3</sup>	Empl Change	Ann %
Health Science Technology	25,133	\$37,000	\$83,100	1.00	667	2.0%	2,623	-1,061	-0.8%
Human Services	43,691	\$39,600	\$53,400	1.02	1,386	2.7%	1,894	739	0.3%
Arts, Communications, and Information Systems	7,565	\$51,100	\$75,400	0.59	243	2.4%	406	-335	-0.9%
Business, Management, and Administration	111,725	\$36,600	\$52,900	0.91	5,535	3.8%	5,370	825	0.1%
Engineering, Manufacturing, and Technology	77,929	\$41,600	\$56,000	1.15	4,095	3.7%	3,204	3,170	0.8%
Agriculture, Food, and Natural Resources*	20,586	\$39,700	\$57,300	1.43	749	3.0%	448	881	0.9%
<b>Total - All Occupations</b>	<b>276,338</b>	<b>\$30,700</b>	<b>\$57,400</b>	<b>1.00</b>	<b>12,231</b>	<b>3.4%</b>	<b>13,625</b>	<b>3,296</b>	<b>0.2%</b>

Data as of 2023Q2 unless noted otherwise

Note: Figures may not sum due to rounding. Employment by place of work.

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2. Wage data represent the average for all Covered Employment

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# Zero Unemployment

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

SOC	Occupation	Current						5-Year History		5-Year Forecast				
		Empl	Mean Ann Wages <sup>2</sup>	LQ	Unempl	Unempl Rate	30-Day Online Job Ads <sup>3</sup>	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Change	Ann % Change
49-9043	Maintenance Workers, Machinery	766	\$64,700	1.06	0	n/a	2	5	0.1%	429	191	222	16	0.4%
17-2011	Aerospace Engineers	429	\$124,700	0.60	0	n/a	14	-13	-0.6%	123	47	73	2	0.1%
33-9021	Private Detectives and Investigators	425	\$68,200	0.99	0	n/a	6	-46	-2.0%	203	75	124	4	0.2%
11-1031	Legislators	359	\$84,600	0.77	0	n/a	n/a	2	0.1%	143	56	86	1	0.0%
13-2031	Budget Analysts	312	\$92,400	0.57	0	n/a	30	-51	-3.0%	119	44	74	2	0.1%
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	293	\$53,200	0.65	0	n/a	2	-24	-1.6%	168	71	100	-3	-0.2%
49-2097	Audiovisual Equipment Installers and Repairers	240	\$57,400	0.79	0	n/a	12	-104	-6.9%	116	43	80	-7	-0.6%
47-4021	Elevator and Escalator Installers and Repairers	229	\$96,200	0.79	0	n/a	1	-46	-3.6%	98	31	69	-2	-0.2%
53-4031	Railroad Conductors and Yardmasters	228	\$81,800	0.50	0	n/a	13	-35	-2.8%	99	26	73	0	0.0%
11-9131	Postmasters and Mail Superintendents	184	\$87,500	1.21	0	n/a	n/a	-16	-1.7%	60	27	42	-9	-1.0%
25-4013	Museum Technicians and Conservators	151	\$50,900	0.92	0	n/a	5	0	0.0%	99	46	48	6	0.7%
53-6099	Transportation Workers, All Other	128	\$44,000	0.89	0	n/a	1	-41	-5.4%	81	29	51	1	0.1%
51-8012	Power Distributors and Dispatchers	110	\$113,800	0.98	0	n/a	1	11	2.2%	47	17	34	-4	-0.7%
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	101	\$59,000	0.57	0	n/a	9	-25	-4.3%	56	33	32	-8	-1.6%
25-4011	Archivists	99	\$64,500	1.00	0	n/a	5	0	0.0%	64	30	31	3	0.6%

# Zero Unemployment

# Central Minnesota

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

SOC	Occupation	Current						5-Year History		5-Year Forecast				
		Empl	Mean Ann Wages <sup>2</sup>	LQ	Unempl	Unempl Rate	30-Day Online Job Ads <sup>3</sup>	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Change	Ann % Change
21-2021	Directors, Religious Activities and Education	397	\$59,800	1.42	0	n/a	2	12	0.6%	210	83	125	1	0.1%
11-3012	Administrative Services Managers	371	\$116,200	0.90	0	n/a	1	84	5.3%	160	62	94	5	0.3%
29-1131	Veterinarians	185	\$106,800	1.22	0	n/a	16	30	3.6%	50	20	13	17	1.7%
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	158	\$43,800	1.58	0	n/a	n/a	-10	-1.2%	80	27	54	-1	-0.1%
29-1216	General Internal Medicine Physicians	147	\$329,700	1.15	0	n/a	12	7	1.0%	21	14	7	0	0.0%
49-9043	Maintenance Workers, Machinery	140	\$57,900	1.28	0	n/a	1	2	0.4%	80	35	41	4	0.6%
51-8013	Power Plant Operators	133	\$92,700	2.39	0	n/a	n/a	27	4.6%	48	20	39	-11	-1.7%
19-3034	School Psychologists	129	\$79,200	1.25	0	n/a	28	-18	-2.6%	48	14	35	0	0.0%
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	115	\$71,300	1.88	0	n/a	2	-50	-6.9%	58	18	41	-1	-0.2%
29-1031	Dietitians and Nutritionists	105	\$68,600	0.79	0	n/a	9	0	0.1%	36	18	17	1	0.3%
19-3033	Clinical and Counseling Psychologists	95	\$100,400	0.79	0	n/a	22	18	4.3%	37	15	17	5	1.1%

# 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

## 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

# Health Science Technology

## *Summary Statistics*

### MSP Metro

- **2023Q2 Employment:** 166,466 (9.0% of MSP employment)
- **Average Wage:** \$90,500 (compared to \$70,700 across all occupations)
- **Location Quotient:** 0.99
- **2023Q2 Unemployment:** 2,607 (1.7% rate)
- **30-Day Job Ads:** 12,080\*
- **5-Year Ann Avg Employment Change:** 0.2%
- **Forecast 5-Year Ann Employment Change:** 0.7%
- **Total 5-Year Demand:** 77,095

### Central

- **2023Q2 Employment:** 25,133 (9.1% of Central employment)
- **Average Wage:** \$83,100 (compared to \$57,400 across all occupations)
- **Location Quotient:** 1.00
- **2023Q2 Unemployment:** 667 (2.0% rate)
- **30-Day Job Ads:** 2,623\*
- **5-Year Ann Avg Employment Change:** -0.8%
- **Forecast 5-Year Ann Employment Change:** 0.6%
- **Total 5-Year Demand:** 11,602

# Health Science Technology

## *Top Occupation & Award Gaps*

MSP Metro  
Central

### MSP Metro

### Central

#### Top Occupation Gaps

- Registered Nurses
- Medical & Health Services Managers
- Nurse Practitioners
- Licensed Practical & Licensed Vocational Nurses
- Medical Assistants

#### Top Award Gaps

- Medical Assistants
- Licensed Practical & Licensed Vocational Nurses
- Registered Nurses
- Medical & Health Services Managers
- Healthcare Support Workers, All Other

#### Top Occupation Gaps

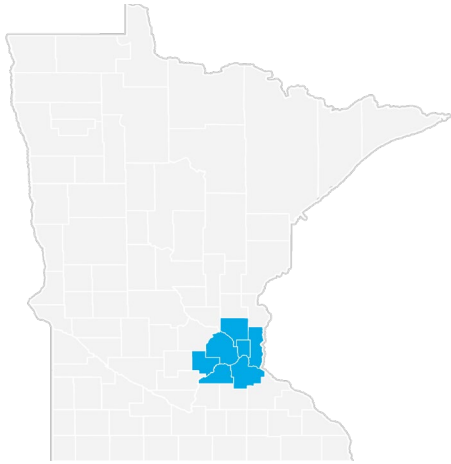
- Registered Nurses
- Medical & Health Services Managers
- Nurse Practitioners
- Licensed Practical & Licensed Vocational Nurses
- Medical Assistants

#### Top Award Gaps

- Nursing Assistants
- Medical & Health Services Managers
- Nurse Practitioners
- Medical Secretaries & Administrative Assistants
- Pharmacists

# Health Science Technology

## MSP Metro



### Target Occupations (All HW, HD, HS)

Registered Nurses (OG, AG)

Medical & Health Services Managers (OG, AG)

Nurse Practitioners (OG, AG)

Medical Scientists (OG, AG)

Dental Hygienists (OG)

### Gateway Occupations

Nursing Assistants (HS, HD, OG)

Medical Secretaries & Administrative Assistants (HD, OG, AG)

Licensed Practical & Licensed Vocational Nurses (HS, HD, OG, AG)

Medical Assistants (HS, HD, OG, AG)

Pharmacy Technicians (HD, OG, AG)

### Origin Occupations

Home Health Aides (HD, AG)

Healthcare Support Workers, All Other (HD, AG)

Psychiatric Technicians (HS, OG, AG)

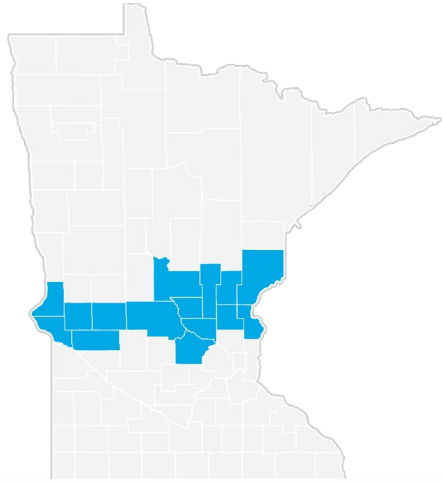
Phlebotomists (HS, HD, OG, AG)

Veterinary Assistants & Laboratory Animal Caretakers (HD, AG)

HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps

# Health Science Technology

## Central



### Target Occupations (all HW, HD, HS)

Registered Nurses (OG)  
Medical & Health Services Managers (OG, AG)  
Pharmacists (OG, AG)  
Nurse Practitioners (OG, AG)  
Dental Hygienists (OG, AG)

### Gateway Occupations

Licensed Practical Nurses (HS, HD, OG)  
Dental Assistants (HS, HD, OG, AG)  
Athletic Trainers (HS, HD, OG)  
Therapists, All Other (HS, OG, AG)  
Occupational Therapy Assistant (HS, HD, AG)

### Origin Occupations

Nursing Assistants (HS, OG, AG)  
Home Health Aides (HD)  
Medical Secretaries & Administrative Assistants (HD, OG, AG)  
Medical Assistants (HS, HD, OG, AG)  
Pharmacy Technicians (OG)

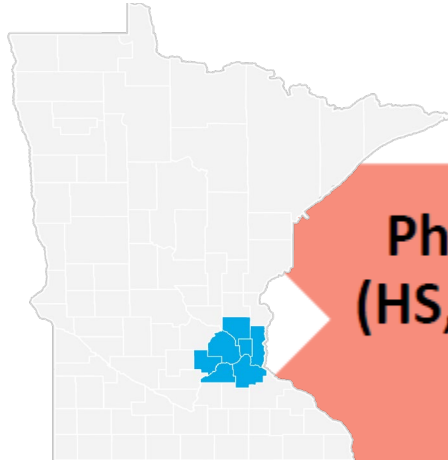
# Health Science Technology

## MSP Metro Region Featured Pathway

Origin

Gateway

Target



Phlebotomists  
(HS, HD, OG, AG)

Medical  
Assistants (HS,  
HD, OG, AG)

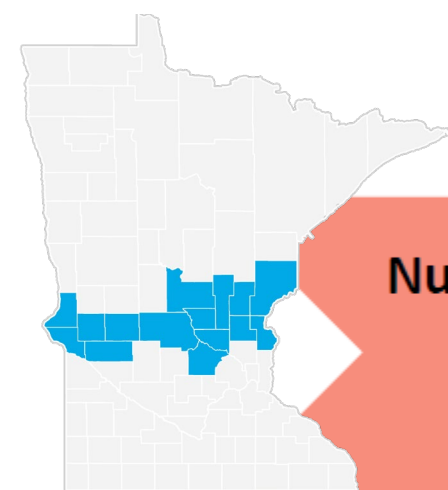
Medical  
Scientists  
(HW, HS, HD, OG,  
AG)

## Central Region Featured Pathway

Origin

Gateway

Target



Nursing Assistants  
(HS, OG, AG)

Licensed Practical  
and Licensed  
Vocational Nurses  
(HS, HD, OG)

Registered Nurses  
(HW, HS, HD, OG)



# Human Services

## *Summary Statistics*

### MSP Metro

- **2023Q2 Employment:** 294,503 (16.0% of MSP Metro employment)
- **Average Wage:** \$62,300 (compared to \$70,700 across all occupations)
- **Location Quotient:** 1.03
- **2023Q2 Unemployment:** 6,265 (2.2% rate)
- **30-Day Job Ads:** 11,304\*
- **5-Year Ann Avg Employment Change:** 0.7%
- **Forecast 5-Year Ann Employment Change:** 0.5%
- **Total 5-Year Demand:** 171,650

### Central

- **2023Q2 Employment:** 43,691 (15.8% of Central employment)
- **Average Wage:** \$53,400 (compared to \$57,400 across all occupations)
- **Location Quotient:** 1.02
- **2023Q2 Unemployment:** 1,386 (2.7% rate)
- **30-Day Job Ads:** 1,894\*
- **5-Year Ann Avg Employment Change:** 0.3%
- **Forecast 5-Year Ann Employment Change:** 0.4%
- **Total 5-Year Demand:** 24,444

### MSP Metro

#### Top Occupation Gaps

- Lawyers
- Elementary School Teachers
- Secondary School Teachers
- Substance, Behavioral, Mental Health Counselors
- Social and Community Service Managers

#### Top Award Gaps

- Teaching Assistants
- Childcare Workers
- Hairdressers, Hairstylists, & Cosmetologists
- Substance, Behavioral, Mental Health Counselors
- Child, Family, & School Social Workers

### Central

#### Top Occupation Gaps

- Elementary School Teachers
- Secondary School Teachers
- Substance, Behavioral, Mental Health Counselors
- Lawyers
- Police & Sheriff's Patrol Officers

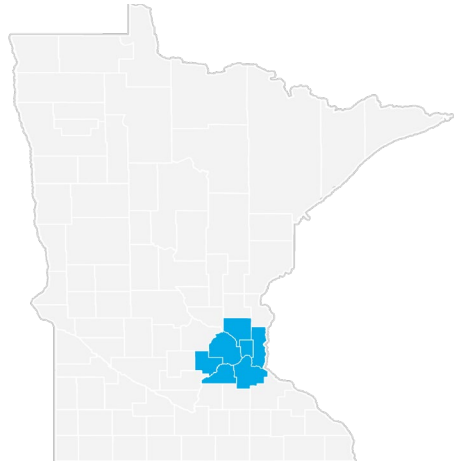
#### Top Award Gaps

- Exercise Trainers & Fitness Instructors
- Hairdressers, Hairstylists, & Cosmetologists
- Lawyers
- Coaches & Scouts
- Substitute Teachers



# Human Services

## MSP Metro



### Target Occupations (All HW, HS, HD, OG)

Elementary School Teachers

Secondary School Teachers

Lawyers

Middle School Teachers

Compliance Officers (AG)

### Gateway Occupations

Social & Human Service Assistants (HD, AG)

Hairdressers, Hairstylists, & Cosmetologists (HS, HD, OG, AG)

Self-Enrichment Teachers (HD, AG)

Substance Abuse, Behavioral Disorder, & Mental Health Counselors (HS, HD, OG, AG)

Child, Family, & School Social Workers (HS, HD, OG, AG)

### Origin Occupations

Personal Care Aides (HD, AG)

Teaching Assistants, Except Postsecondary (HS, HD, AG)

Childcare Workers (AG)

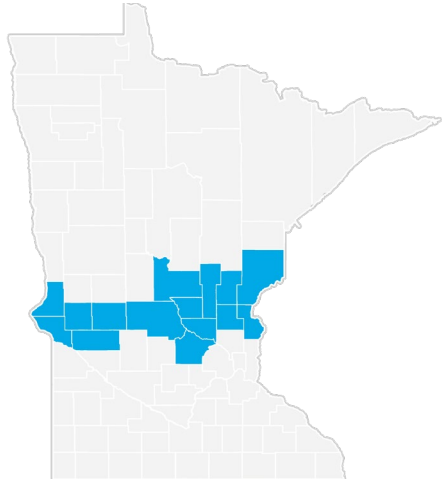
Security Guards (AG)

Preschool Teachers, Except Special Education (AG)

HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps

# Human Services

## Central



### Target Occupations (all HW, HS, HD)

Child, Family, & School Social Workers (OG)  
Lawyers (OG, AG)  
Social & Community Service Managers (OG)  
Compliance Officers (OG)  
Guidance & Career Counselors (OG)

### Gateway Occupations

Substance Abuse, Behavioral Disorder, & Mental Health Counselors (HS, HD, OG)  
Substitute Teachers (HS, HD, AG)  
Correctional Officers (AG)  
License Clerks (HD, OG)  
Clergy (HS, OG, AG)

### Origin Occupations

Personal Care Aides (HD, AG)  
Teaching Assistants (HS)  
Childcare Workers (AG)  
Preschool Teachers (HS, HD, OG)  
Social & Human Service Assistants (HD)

# Human Services

## MSP Metro Region Featured Pathway

Origin

Gateway

Target



Community and  
Social Service  
Specialists (HD, AG)

Substance Abuse,  
Behavioral Disorder,  
and Mental Health  
Counselors (HS, HD,  
OG, AG)

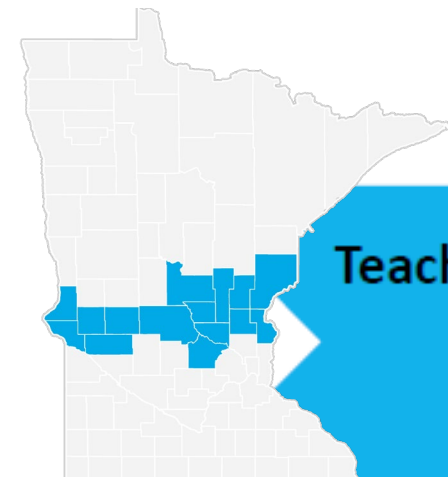
Social Workers, All  
Other  
(HW, HS, HD, OG,  
AG)

## Central Region Featured Pathway

Origin

Gateway

Other Aligned Occupation



Teaching Assistants  
(HS)

Substitute Teachers  
(HS, HD, AG)

Elementary School  
Teachers  
(HW, HS, OG, AG)

# Arts, Communications, & Information Systems

## *Summary Statistics*

### MSP Metro

### Central

- **2023Q2 Employment:** 102,426 (5.6% of MSP Metro employment)
- **Average Wage:** \$95,800 (compared to \$70,700 across all occupations)
- **Location Quotient:** 1.20
- **2023Q2 Unemployment:** 1,980 (2.0% rate)
- **30-Day Job Ads:** 6,565\*
- **5-Year Ann Avg Employment Change:** -0.5%
- **Forecast 5-Year Ann Employment Change:** 0.6%
- **Total 5-Year Demand:** 45,406

- **2023Q2 Employment:** 7,565 (2.7% of Central employment)
- **Average Wage:** \$75,400 (compared to \$57,400 across all occupations)
- **Location Quotient:** 0.59
- **2023Q2 Unemployment:** 243 (2.4% rate)
- **30-Day Job Ads:** 406\*
- **5-Year Ann Avg Employment Change:** -0.9%
- **Forecast 5-Year Ann Employment Change:** 0.3%
- **Total 5-Year Demand:** 3,417

# Arts, Communications, & Information Systems

## *Top Occupation & Award Gaps*

MSP Metro  
Central

### MSP Metro

#### Top Occupation Gaps

- Software Developers
- Computer Systems Analysts
- Information Security Analysts
- Computer User Support Specialists
- Computer Network Support Specialists

#### Top Award Gaps

- Software Developers
- Musicians & Singers
- Computer Systems Analysts
- Computer User Support Specialists
- Prepress Technicians & Workers

### Central

#### Top Occupation Gaps

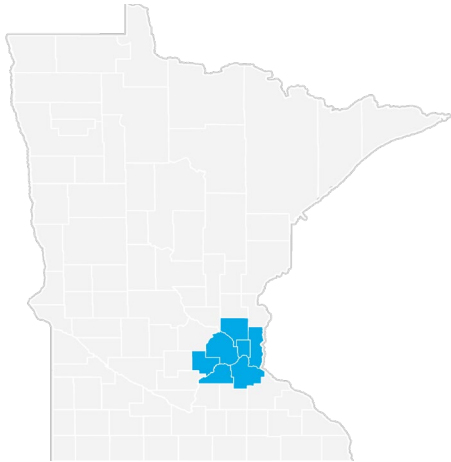
- Software Developers
- Computer Systems Analysts
- Computer Network Support Specialists
- Computer Occupations
- Information Security Analysts

#### Top Award Gaps

- Computer User Support Specialists
- Computer Systems Analysts
- Musicians & Singers
- Photographers
- Actors

# Arts, Communications, & Information Systems

## MSP Metro



### Target Occupations (All HW, HS, HD, OG, AG)

Software Developers  
Computer Systems Analysts  
Computer Network Support Specialists  
Computer Occupations, All Other  
Network & Computer Systems Administrators

### Gateway Occupations

Computer User Support Specialists (HS, HD, OG, AG)  
Printing Press Operators (AG)  
Photographers (OG, AG)  
Telecommunications Equipment Installers & Repairers (HS, HD, OG, AG)  
Prepress Technicians & Workers (HS, AG)

### Origin Occupations

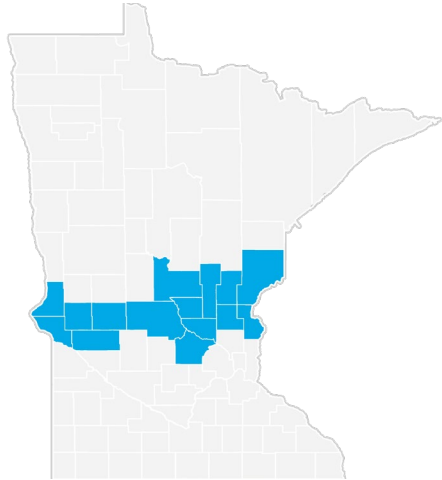
Floral Designers  
Dancers (HD, AG)

HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps



# Arts, Communications, & Information Systems

## Central



### Target Occupations (all HW, HD, HS, OG)

Software Developers

Computer Systems Analysts (AG)

Computer Network Support Specialists

Computer Occupations, All Other (OG)

Telecommunications Equipment Installers (OG, AG)

### Gateway Occupations

Printing Press Operators (AG)

Photographers (OG, AG)

Print Binding & Finishing Workers

Reporters & Journalists (HS)

Designers, All Other (HS, HD, AG)

### Origin Occupations

Prepress Technicians & Workers (HS, AG)

Floral Designers

Broadcast Announcers & Radio Disc Jockeys (HS)

Disc Jockeys, Except Radio (HD, AG)

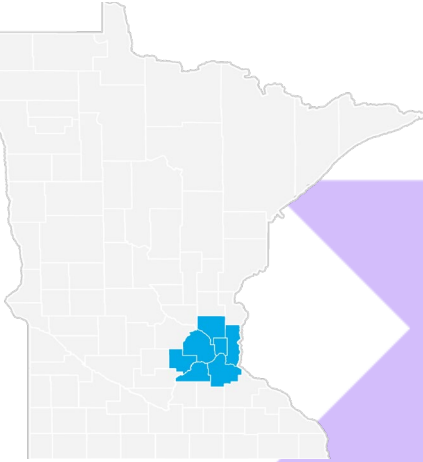
Dancers (HD, AG)

# Arts, Communications, & Information Systems

## MSP Metro Region Featured Pathway

Gateway

Target



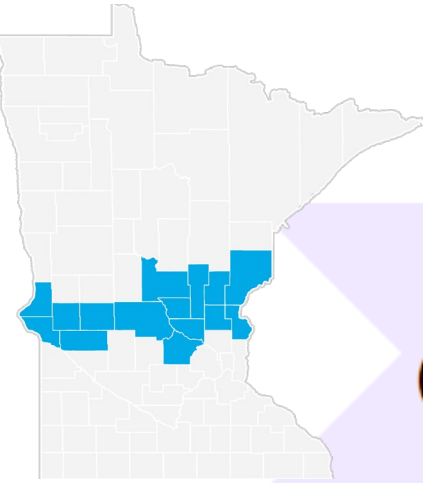
**Computer User Support Specialists**  
(HS, HD, OG, AG)

**Information Security Analysts**  
(HW, HS, HD, OG, AG)

**Computer Systems Analysts**  
(HW, HS, HD, OG, AG)

## Northwest Region Featured Pathway

Target



**Computer Systems Analysts**  
(HW, HS, HD, OG, AG)

**Computer Network Support Specialists**  
(HW, HS, HD, OG)

**Software Developers**  
(HW, HS, HD, OG)



# Business, Management, & Administration *Summary Statistics*

## MSP Metro

## Central

- **2023Q2 Employment:** 830,065 (45.1% of MSP Metro employment)
- **Average Wage:** \$69,500 (compared to \$70,700 across all occupations)
- **Location Quotient:** 1.02
- **2023Q2 Unemployment:** 22,531 (2.8% rate)
- **30-Day Job Ads:** 37,684\*
- **5-Year Ann Avg Employment Change:** -0.6%
- **Forecast 5-Year Ann Employment Change:** -0.2%
- **Total 5-Year Demand:** 509,914

- **2023Q2 Employment:** 111,725 (40.4% of Central employment)
- **Average Wage:** \$52,900 (compared to \$57,400 across all occupations)
- **Location Quotient:** 0.91
- **2023Q2 Unemployment:** 5,535 (3.8% rate)
- **30-Day Job Ads:** 5,370\*
- **5-Year Ann Avg Employment Change:** 0.1%
- **Forecast 5-Year Ann Employment Change:** -0.2%
- **Total 5-Year Demand:** 73,841

# Business, Management, & Administration *Top Occupation & Award Gaps*

## MSP Metro

### Top Occupation Gaps

- General & Operations Managers
- Financial Managers
- Market Research Analysts & Specialists
- Management Analysts
- Computer & Information Systems Managers

### Top Award Gaps

- General & Operations Managers
- Management Analysts
- Business Operations Specialists
- Human Resources Specialists
- Project Management Specialists

## Central

### Top Occupation Gaps

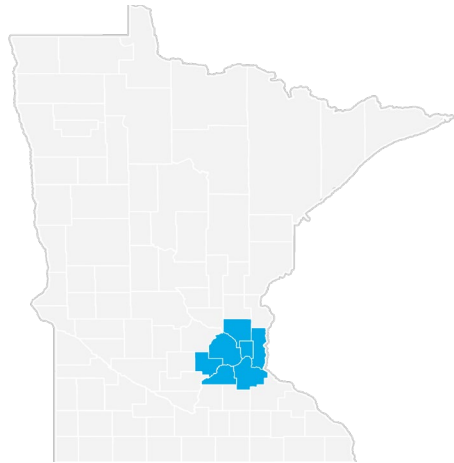
- General & Operations Managers
- Restaurant Cooks
- Financial Managers
- Accountants & Auditors
- Managers, All Other

### Top Award Gaps

- General & Operations Managers
- Business Operations Specialists
- Human Resources Specialists
- Project Management Specialists
- Management Analysts

# Business, Management, & Administration

## MSP Metro



### Target Occupations (All HW, HS, HD, OG, AG)

General & Operations Managers

Accountants & Auditors

Market Research Analysts & Marketing Specialists

Management Analysts

Business Operations Specialists, All Other

### Gateway Occupations

Customer Service Representatives (HD, AG)

Office Clerks, General (HD, AG)

Secretaries & Administrative Assistants, Except Legal, Medical, & Executive (HD, AG)

Bookkeeping, Accounting, & Auditing Clerks (HS, HD, AG)

First-Line Supervisors of Retail Sales Workers (HD)

### Origin Occupations

Retail Salespersons (HD)

Fast Food & Counter Workers (HD)

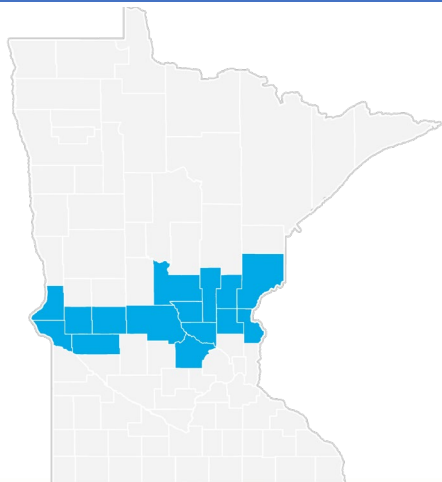
Cashiers

Janitors & Cleaners, Except Maids & Housekeeping Cleaners (HD)

Stockers & Order Fillers (HD)

# Business, Management, & Administration

## Central



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

### Gateway Occupations

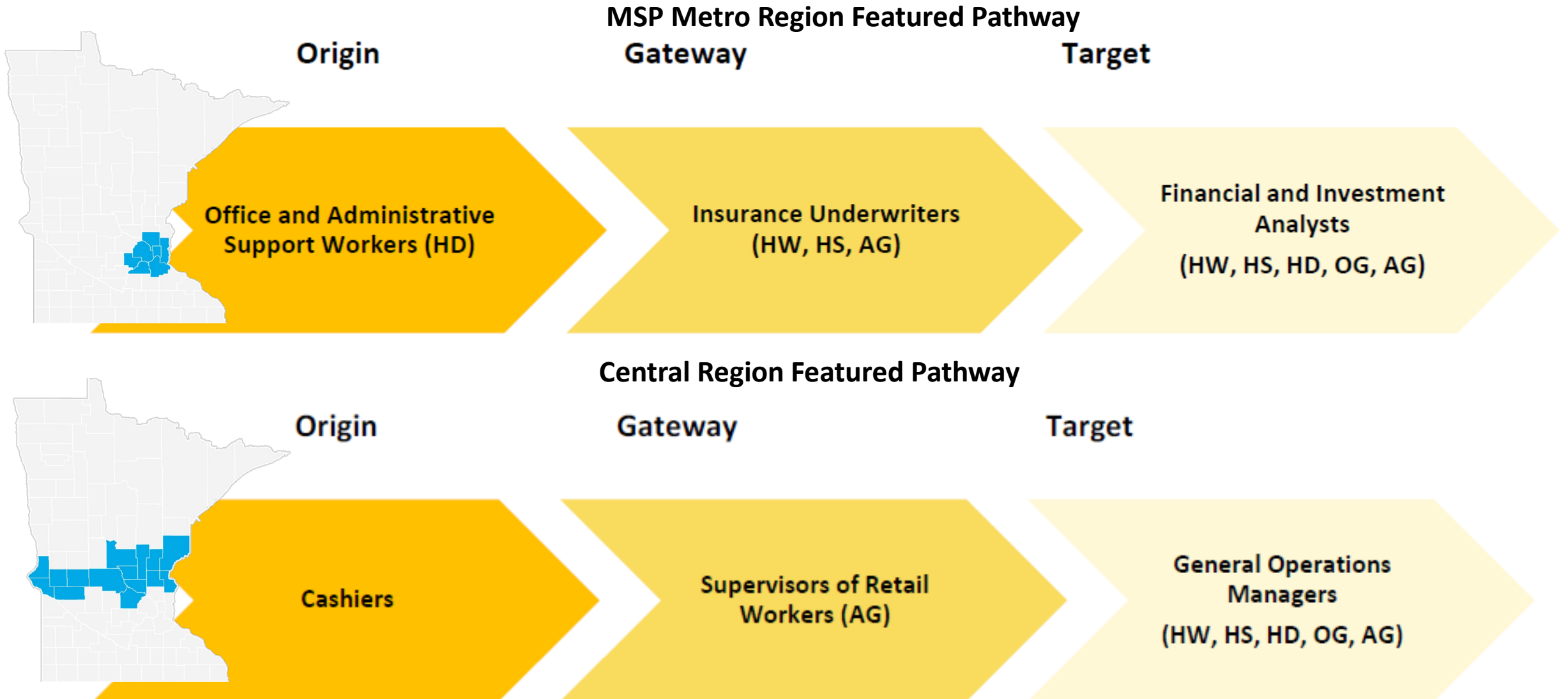
Supervisors of Retail Workers (AG)  
Secretaries and Administrative Assistants  
Bookkeeping, Accounting, & Auditing Clerks (HS, HD)  
Billing & Posting Clerks (HD)  
Supervisors of Housekeeping and Janitorial Workers (HD, OG)

### Origin Occupations

Cashiers  
Retail Salespersons  
Fast Food & Counter Workers (FD)  
Office Clerks, General (HD, AG)  
Stockers & Order Fillers (HD)

HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps

# Business, Management, & Administration





# Engineering, Manufacturing, & Technology

MSP Metro  
Central

## Summary Statistics

### MSP Metro

- **2023Q2 Employment:** 428,655 (23.3% of MSP Metro employment)
- **Average Wage:** \$65,600 (compared to \$70,700 across all occupations)
- **Location Quotient:** 0.95
- **2023Q2 Unemployment:** 12,212 (3.1% rate)
- **30-Day Job Ads:** 15,494\*
- **5-Year Ann Avg Employment Change:** 0.5%
- **Forecast 5-Year Ann Employment Change:** 0.1%
- **Total 5-Year Demand:** 233,129

### Central

- **2023Q2 Employment:** 77,929 (28.2% of Central employment)
- **Average Wage:** \$57,300 (compared to \$57,400 across all occupations)
- **Location Quotient:** 1.15
- **2023Q2 Unemployment:** 4,095 (3.7% rate)
- **30-Day Job Ads:** 3,204\*
- **5-Year Ann Avg Employment Change:** 0.8%
- **Forecast 5-Year Ann Employment Change:** 0.1%
- **Total 5-Year Demand:** 42,889



### MSP Metro

#### Top Occupation Gaps

- Heavy & Tractor Trailer Truck Drivers
- Maintenance & Repair Workers
- Industrial Engineers
- Carpenters
- Industrial Machinery Mechanics

#### Top Award Gaps

- Industrial Engineers
- Welders, Cutters, Solderers, & Brazers
- Industrial Engineering Technologists
- Automotive Service Mechanics
- Heavy & Tractor Trailer Truck Drivers

### Central

#### Top Occupation Gaps

- Heavy & Tractor Trailer Truck Drivers
- Industrial Engineers
- Carpenters
- Supervisors of Construction Trades Workers
- Maintenance & Repair Workers

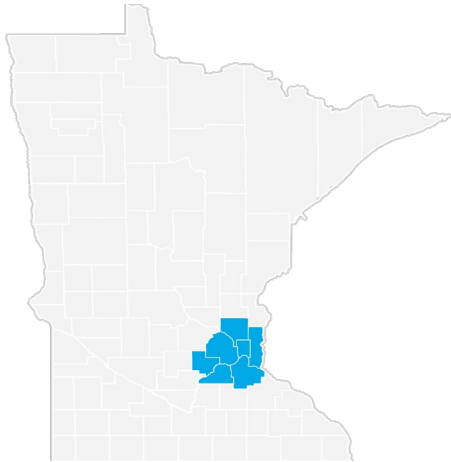
#### Top Award Gaps

- Welders, Cutters, Solderers, & Brazers
- Cost Estimators
- Heavy & Tractor Trailer Truck Drivers
- Civil Engineers
- Automotive Service Mechanics



# Engineering, Manufacturing, & Tech

## MSP Metro



### Target Occupations (All HW, HS, HD, OG)

Industrial Engineers (AG)

Construction Managers (AG)

Mechanical Engineers (AG)

HVAC Mechanics & Installers

Architectural & Engineering Managers

### Gateway Occupations

Laborers & Freight, Stock, & Material Movers, Hand (HD)

Heavy & Tractor-Trailer Truck Drivers (HS, HD, OG, AG)

Maintenance & Repair Workers, General (HD, OG)

Construction Laborers (HD)

Light Truck Drivers (HD, AG)

### Origin Occupations

Team Assemblers

Landscaping & Groundskeeping Workers (HD)

Packers & Packagers, Hand

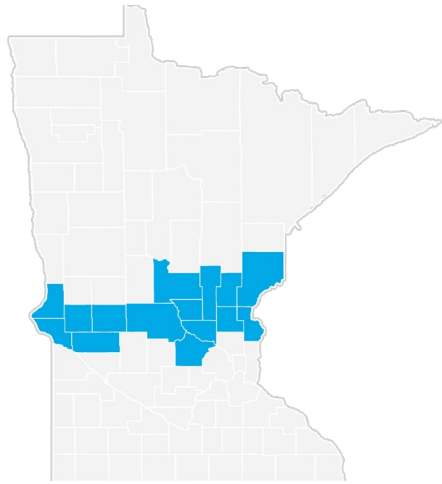
Packaging & Filling Machine Operators & Tenders (HD, OG)

Cleaners of Vehicles & Equipment (HD)

HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps

# Engineering, Manufacturing, & Tech

## Central



### Target Occupations (all HW, HD, HS, OG, AG)

- Industrial Engineers
- Construction Managers
- Heating, Air Conditioning, & Refrigeration Mechanics
- Mechanical Engineers
- Civil Engineers

### Gateway Occupations

- Heavy & Tractor Trailer Drivers (HS, HD, OG, AG)
- Construction Laborers (HD)
- Maintenance & Repair Workers, General (OG, AG)
- Light Truck Drivers (HD, AG)
- Auto Service Technicians & Mechanics (HS, OG, AG)

### Origin Occupations

- Laborers & Freight, Stock Movers (HD)
- Team Assemblers
- Landscaping & Groundskeeping Workers (HD, AG)
- Bus Drivers, School (HD, AG)
- Packers and Packagers, Hand

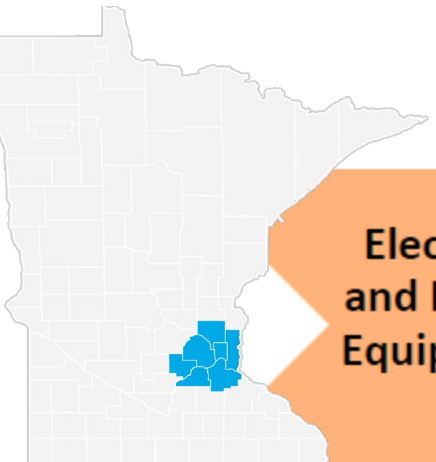
HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps

# Engineering, Manufacturing, & Technology

## MSP Metro Region Featured Pathway

Gateway

Target



Electrical, Electronic,  
and Electromechanical  
Equipment Assemblers  
(AG)

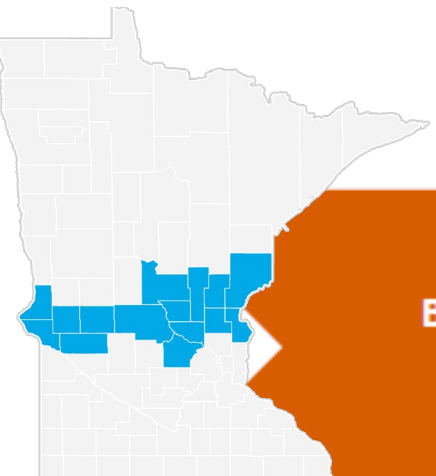
Industrial Engineering  
Technologists and  
Technicians  
(HW, HS, OG, AG)

Industrial Engineers  
(HW, HS, HD, OG, AG)

## Central Region Featured Pathway

Origin

Gateway



Bus Drivers  
(HD, AG)

Light Truck Drivers  
(HD, AG)

Heavy & Tractor Trailer  
Drivers  
(HS, HD, OG, AG)

# Agriculture, Food, & Natural Resources

## Summary Statistics

### MSP Metro

- **2023Q2 Employment:** 69,422 (3.8% of MSP Metro employment)
- **Average Wage:** \$66,600 (compared to \$70,700 across all occupations)
- **Location Quotient:** 0.72
- **2023Q2 Unemployment:** 1,817 (2.8% rate)
- **30-Day Job Ads:** 2,768\*
- **5-Year Ann Avg Employment Change:** 0.5%
- **Forecast 5-Year Ann Employment Change:** 0.2%
- **Total 5-Year Demand:** 42,118

### Central

- **2023Q2 Employment:** 20,586 (7.5% of Central employment)
- **Average Wage:** \$57,300 (compared to \$57,400 across all occupations)
- **Location Quotient:** 1.43
- **2023Q2 Unemployment:** 749 (3.0% rate)
- **30-Day Job Ads:** 448\*
- **5-Year Ann Avg Employment Change:** 0.9%
- **Forecast 5-Year Ann Employment Change:** -0.1%
- **Total 5-Year Demand:** 12,154

# Agriculture, Food, & Natural Resources

## *Top Occupation & Award Gaps*

### MSP Metro

#### Top Occupation Gaps

- Veterinary Technologists & Technicians
- HVAC Mechanics
- Plumbers, Pipefitters, & Steamfitters
- Veterinarians
- Aircraft Mechanics & Service Technicians

#### Top Award Gaps

- Aircraft Mechanics & Service Technicians
- Veterinary Technologists & Technicians
- Veterinary Assistants & Lab Animal Caretakers
- Environmental Engineers
- Bakers

### Central

#### Top Occupation Gaps

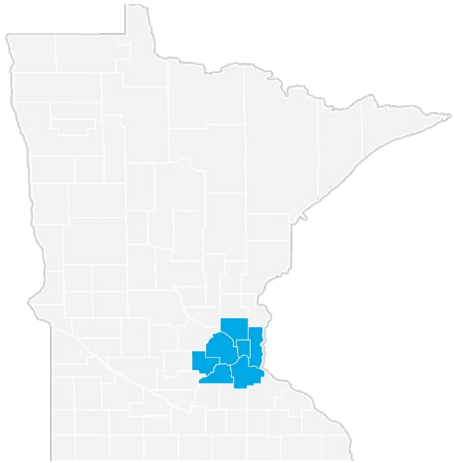
- Plumbers, Pipefitters, & Steamfitters
- HVAC Mechanics
- Veterinary Technologists & Technicians
- Veterinarians
- Electrical Power-Line Installers

#### Top Award Gaps

- Farmers, Ranchers, & Other Ag Managers
- HVAC Mechanics
- Veterinarians
- Veterinary Technologists & Technicians
- Veterinary Assistants & Lab Animal Caretakers

# Agriculture, Food, & Natural Resources

## MSP Metro



### Target Occupations (All HW, HS, HD, OG)

HVAC Mechanics & Installers

Chemists

Environmental Scientists & Specialists (AG)

Veterinarians

Natural Sciences Managers

### Gateway Occupations

Veterinary Technologists & Technicians (HS, HD, OG, AG)

First-Line Supervisors of Landscaping, Lawn Service, & Groundskeeping Workers (HD, OG)

Chefs & Head Cooks (HD, AG)

Telecommunications Equipment Installers & Repairers (HS, HD, OG, AG)

Refuse & Recyclable Material Collectors (HD, AG)

### Origin Occupations

Landscaping & Groundskeeping Workers (HD)

Animal Caretakers (HD, AG)

Food Batchmakers (HD, AG)

Bakers (HD, AG)

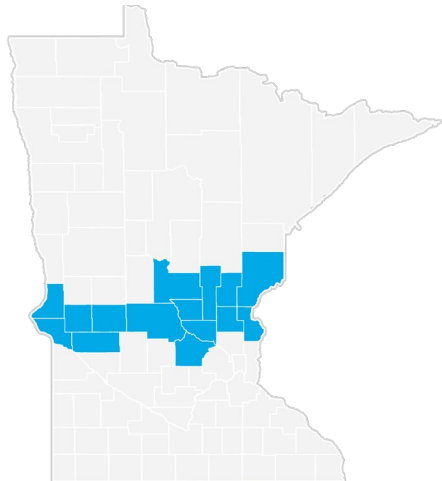
Farmworkers & Laborers, Crop, Nursery, and Greenhouse

HW = High-Wage; HS=High-Skill; HD=High-Demand; OG=Occupation Gaps; AG=Award Gaps



# Agriculture, Food, & Natural Resources

## Central



### Target Occupations (all HW, HD, HS)

Heating, Air Conditioning, & Refrigeration Mechanics (OG, AG)  
Telecommunications Equipment Installers & Repairers (OG, AG)  
Nuclear Engineers (AG)  
Chemists  
Nuclear Technicians (AG)

### Gateway Occupations (all HD)

Farm Equipment Mechanics (OG, AG)  
Refuse & Recyclable Material Collectors  
Chefs & Head Cooks (AG)  
Tree Trimmers & Pruners  
Food Cooking Machine Operators

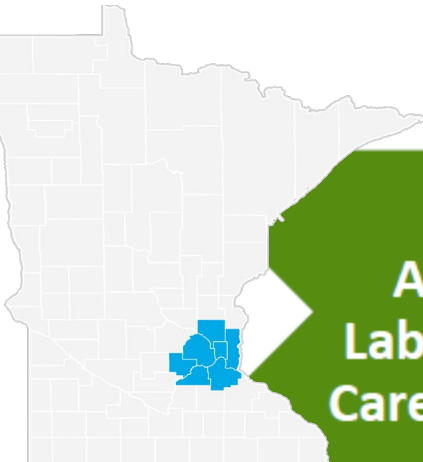
### Origin Occupations

Landscaping & Groundskeeping Workers (HD, AG)  
Farmworkers, Farm, Ranch, & Aquacultural Animals  
Farmworkers & Laborers  
Meat, Poultry, & Fish Cutters & Trimmers  
Food Batchmakers (HD, AG)



# Agriculture, Food, & Natural Resources

MSP Metro Region Featured Pathway



**Veterinary Assistants and Laboratory Animal Caretakers (HD, AG)**

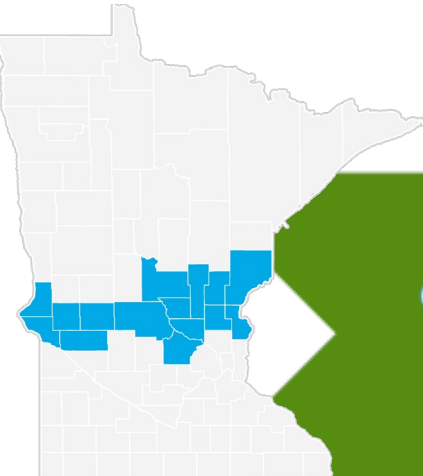
**Veterinary Technician and Technologists (HS, HD, OG, AG)**

**Veterinarians (HW, HS, HD, OG, AG)**

Central Region Featured Pathway

Origin

Target



**Landscaping & Groundskeeping Workers (HD, AG)**

**Farmworkers, Farm, Ranch, & Aquacultural Animals**

**Farmers, Ranchers, & Other Agricultural Managers (HW, HS, OG, AG)**

# 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, Senior Director of Strategic Research,  
[erin@realtimetalentmn.org](mailto:erin@realtimetalentmn.org)