

# Workforce Trends

## For Career & Technical Education

### RealTime Talent

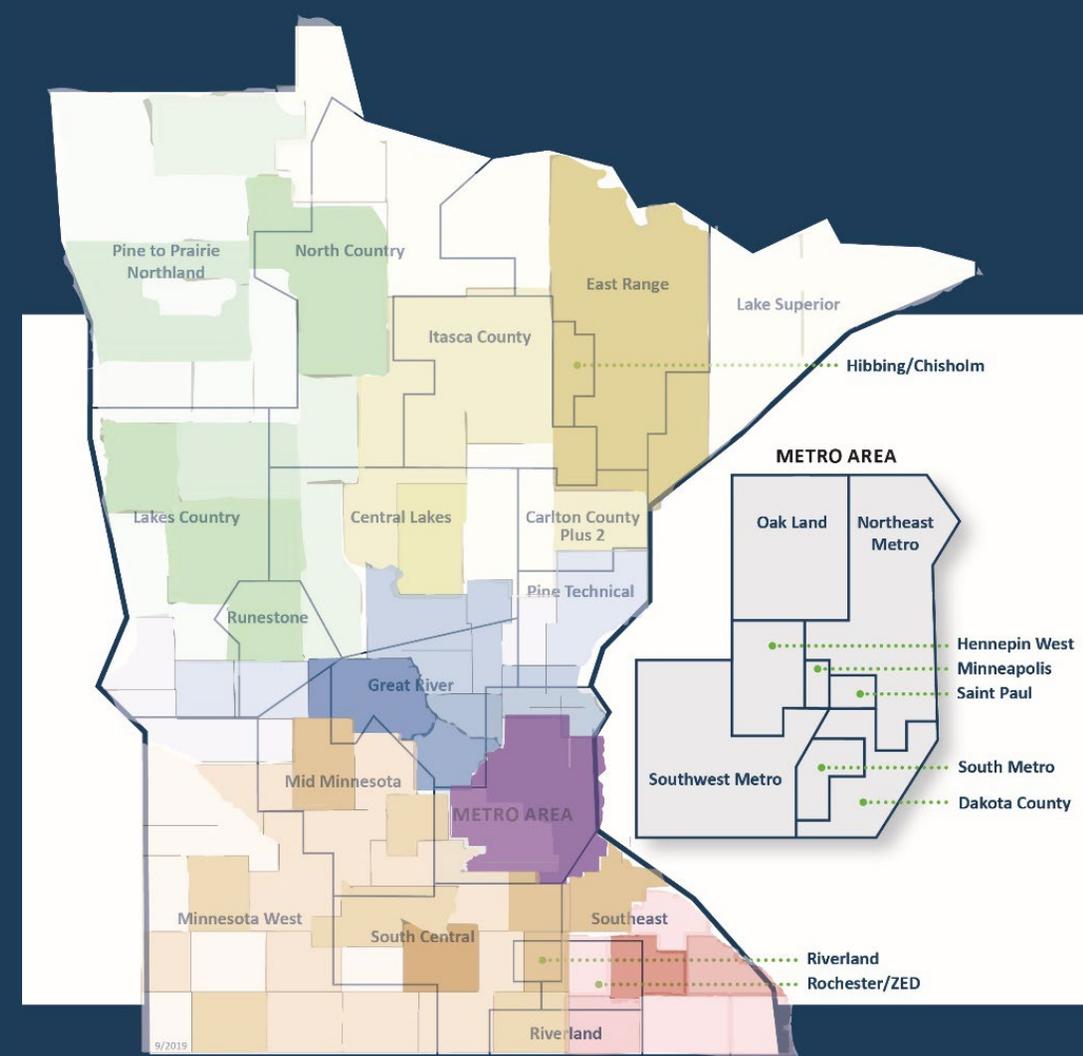
Erin Olson

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

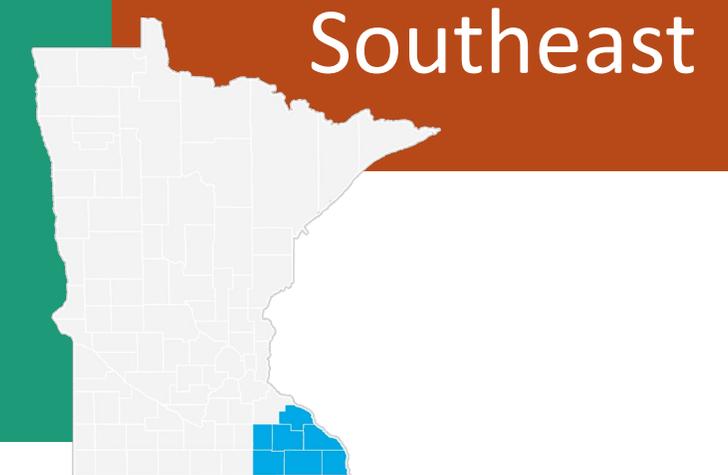
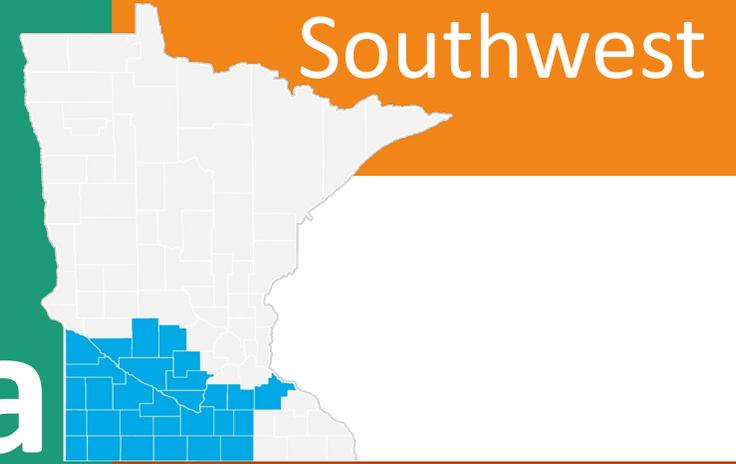
## Who's in the Virtual "Room"

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

# Workforce Trends

For Career & Technical Education

# Southern Minnesota



## RealTime Talent

Erin Olson, Senior Director of Strategic Research

Julia Diaz, Research Analyst

December 15, 2023

Access the full report here:

<http://www.realtimetalent.org>

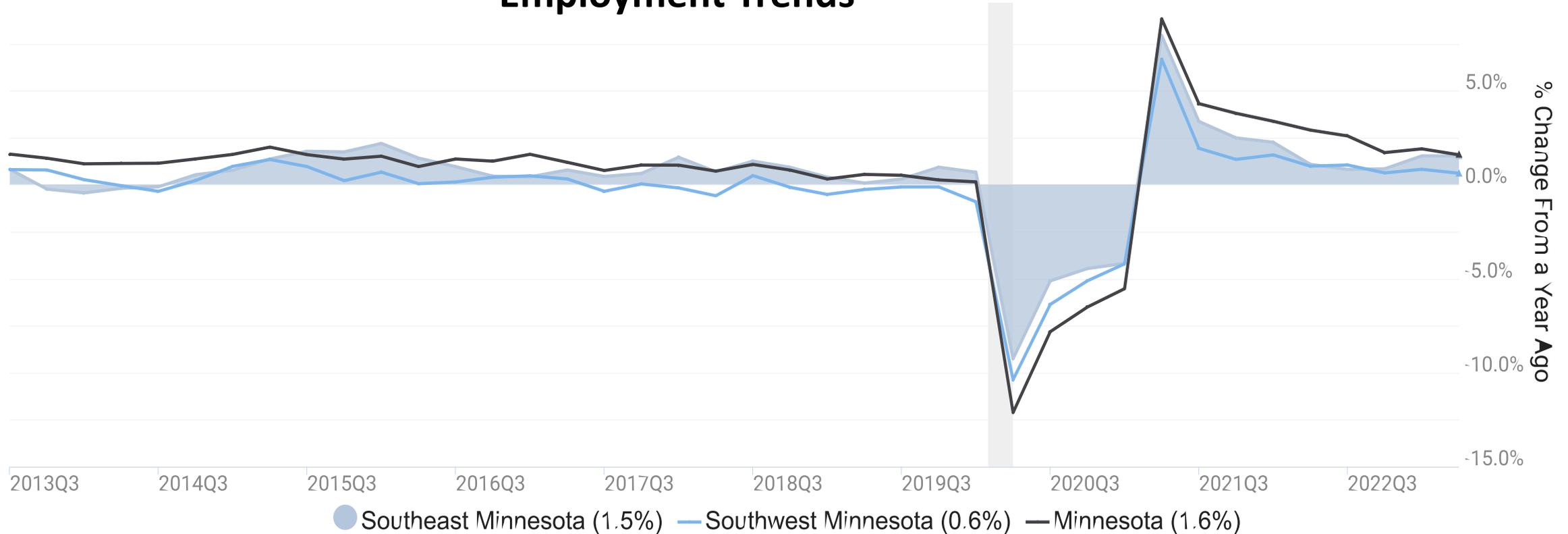
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# Community Profile

Southwest  
Southeast

## Employment Trends



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

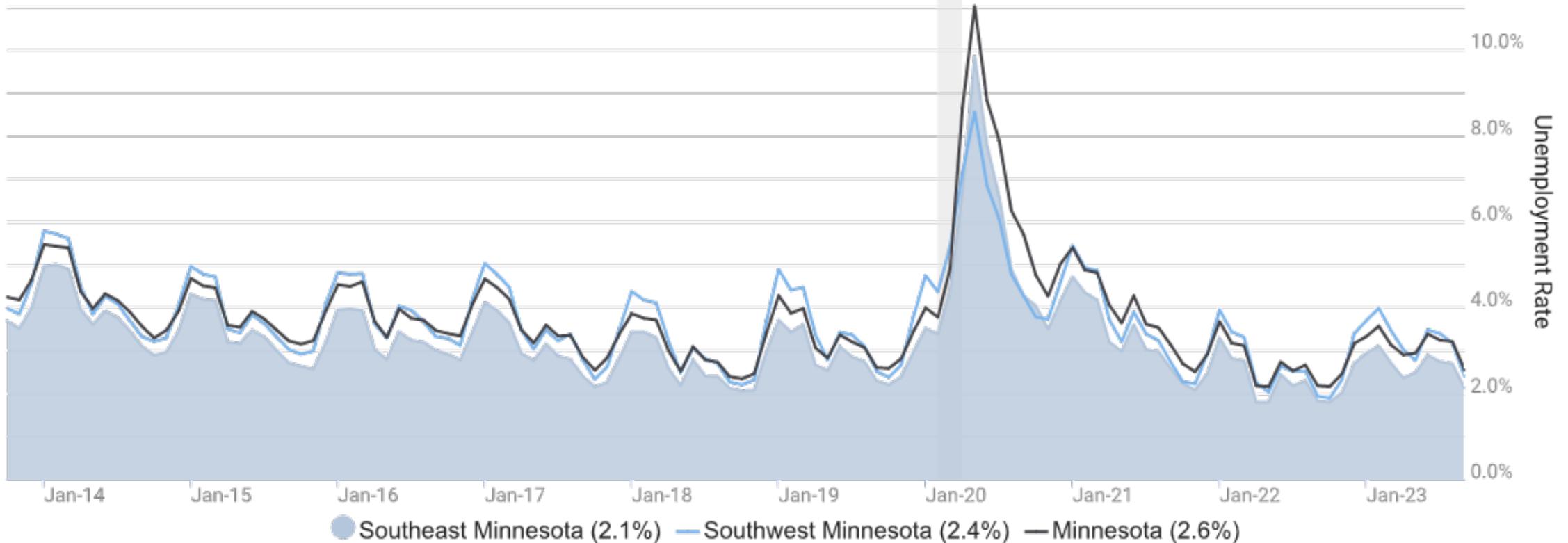
In 2022, GDP Expanded by 5.4% in Southeast Minnesota, and by 8.5% in Southwest Minnesota



# Community Profile

Southwest  
Southeast

## Unemployment Trends



Source: JobsE0®. Data as of Sep 2023. The shaded areas of the graph represent national recessions.



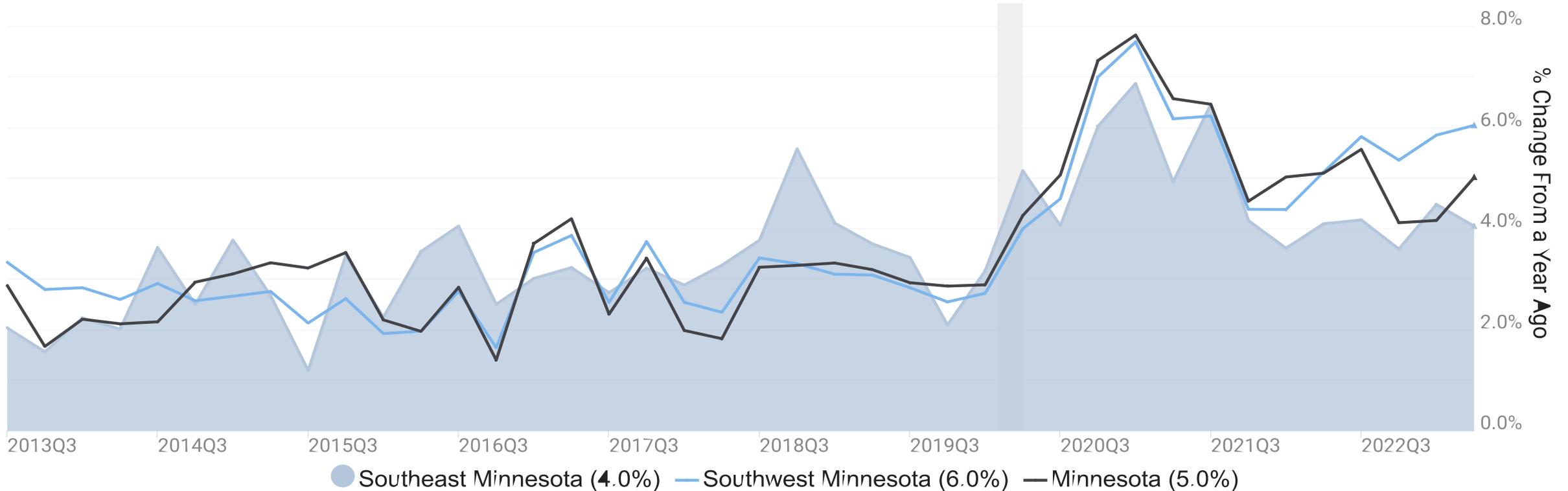
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# Community Profile

Southwest  
Southeast

## Average Wage Changes from Prior Year



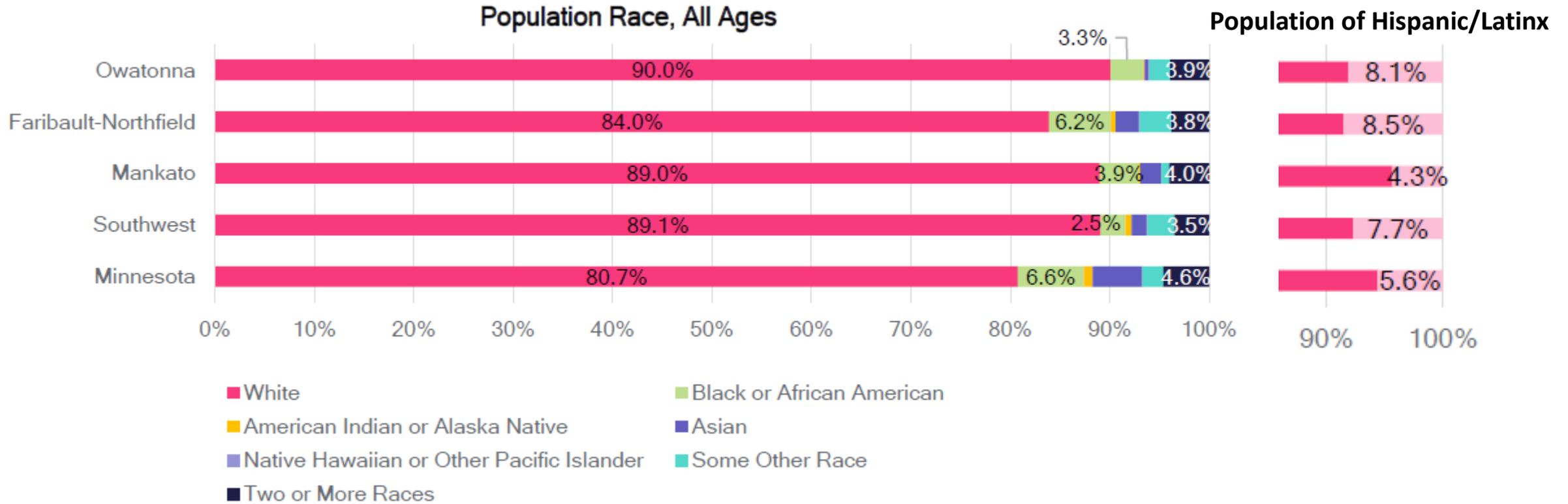
Source: JobsEQ®. Data as of 2023Q2. The shaded areas of the graph represent national recessions.

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

## Southwest

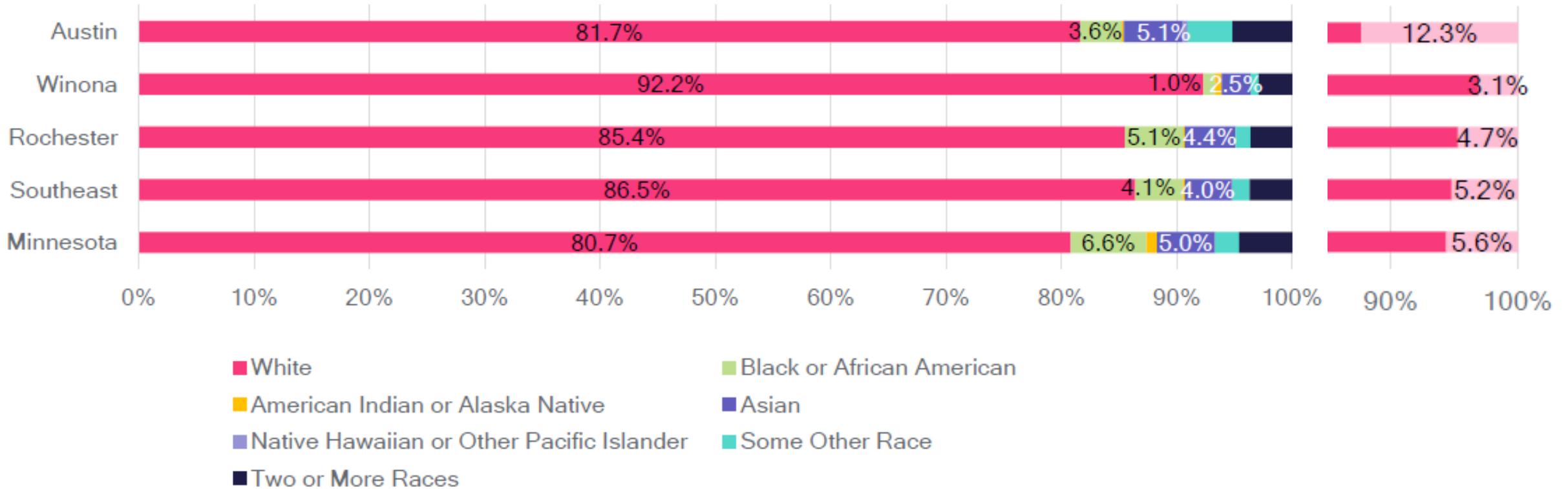


# Population Demographics

## Southeast

**Population Race, All Ages**

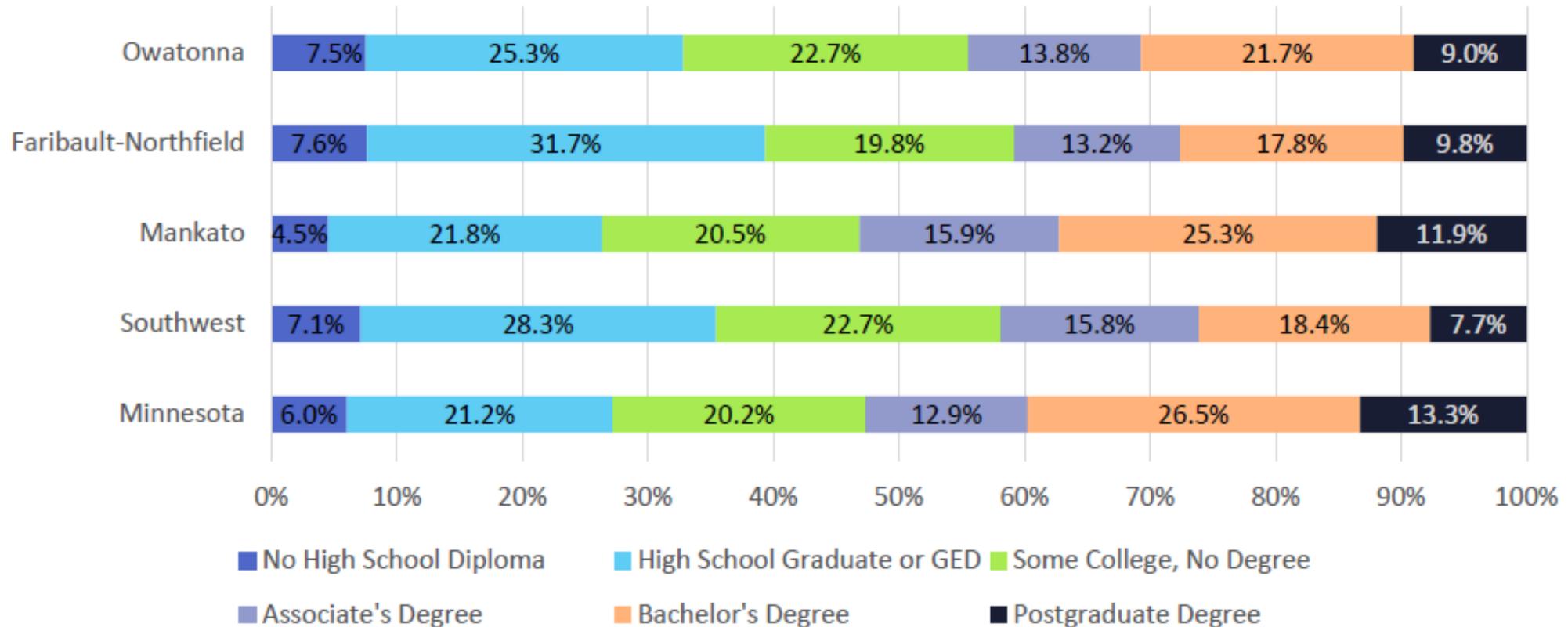
**Population of Hispanic/Latinx**



# Community Profile

Southwest

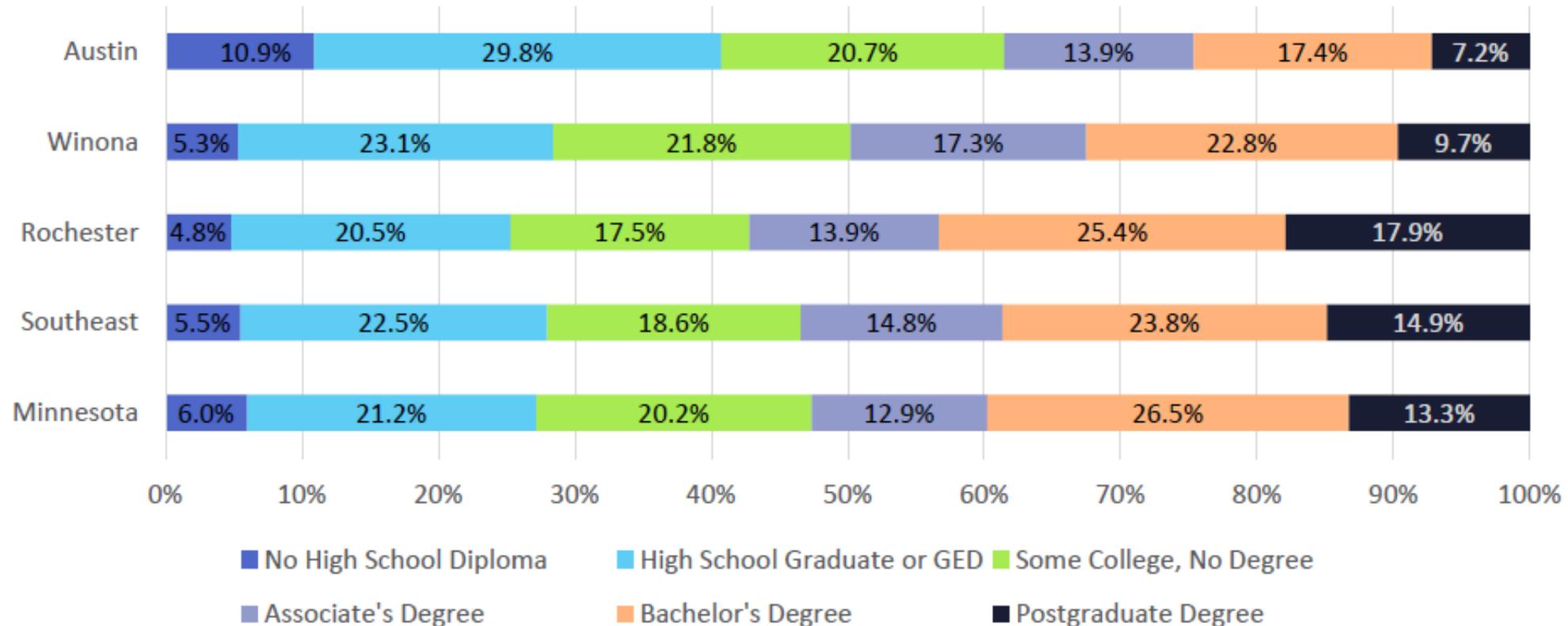
Educational Attainment, Age 25-64



# Community Profile

## Southeast

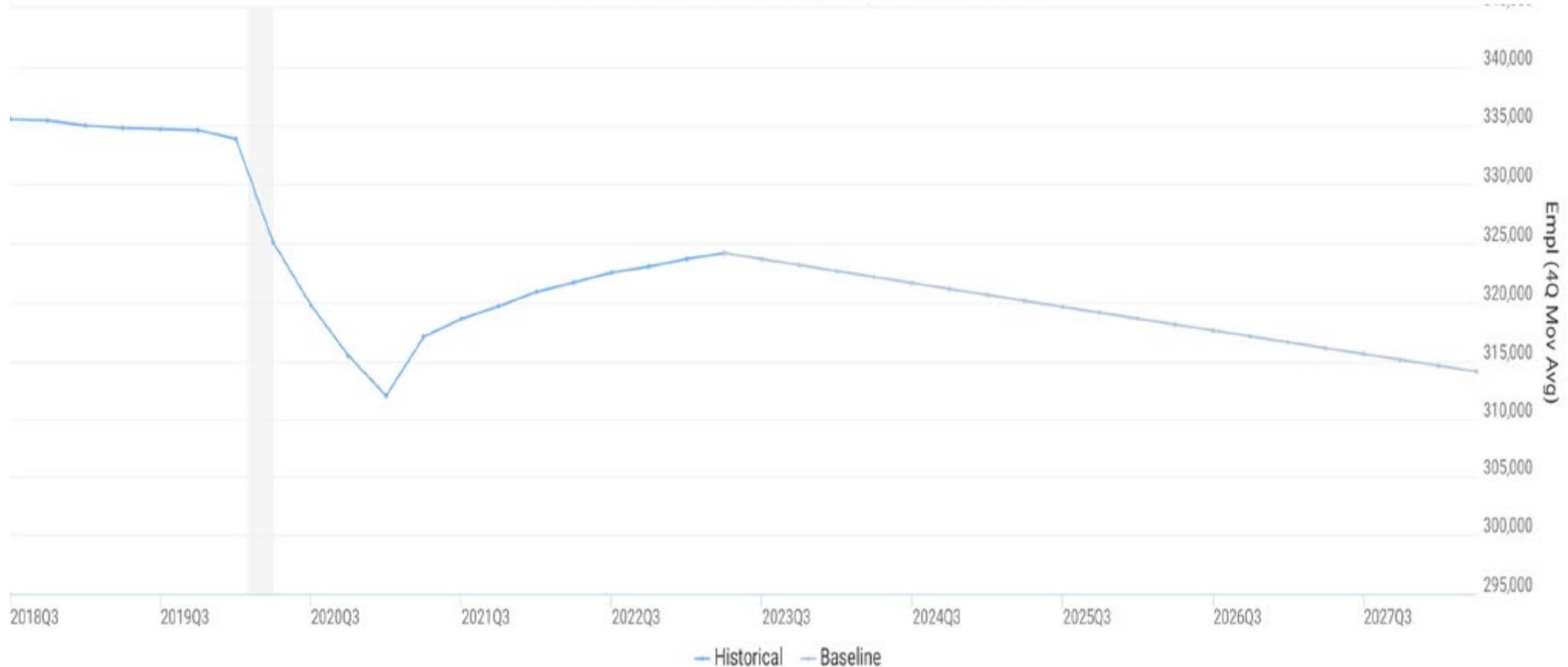
### Educational Attainment, Age 25-64



# Labor Market *Workforce Forecast*

Southwest

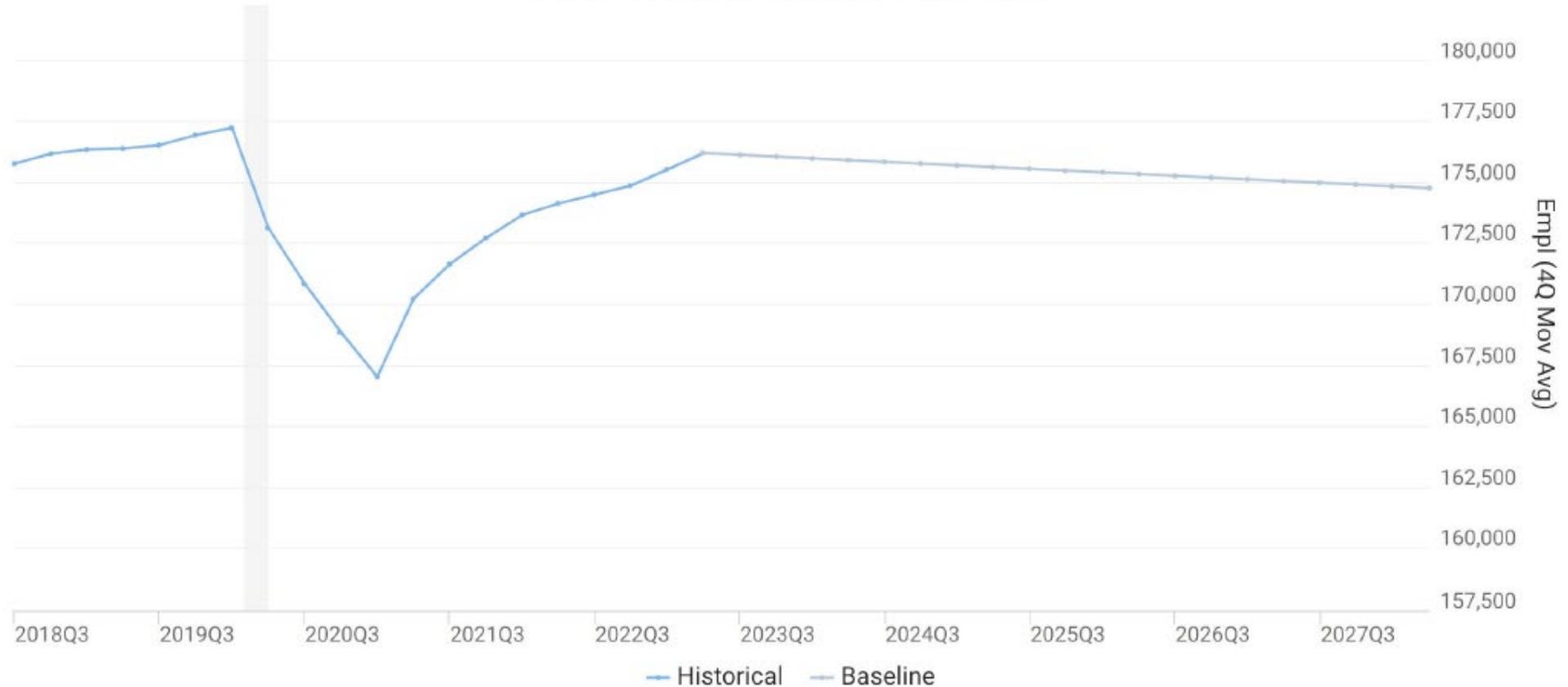
5-Year Forecast in Southwest Minnesota



Employment is forecast to decline  
by -0.6% on average annually

# Labor Market *Workforce Forecast*

5-Year Forecast in Southeast Minnesota



Employment is forecast to decline by -0.2% on average annually

# Polling Question

Which career pathways do you believe to be most important in Southern Minnesota?

Why?

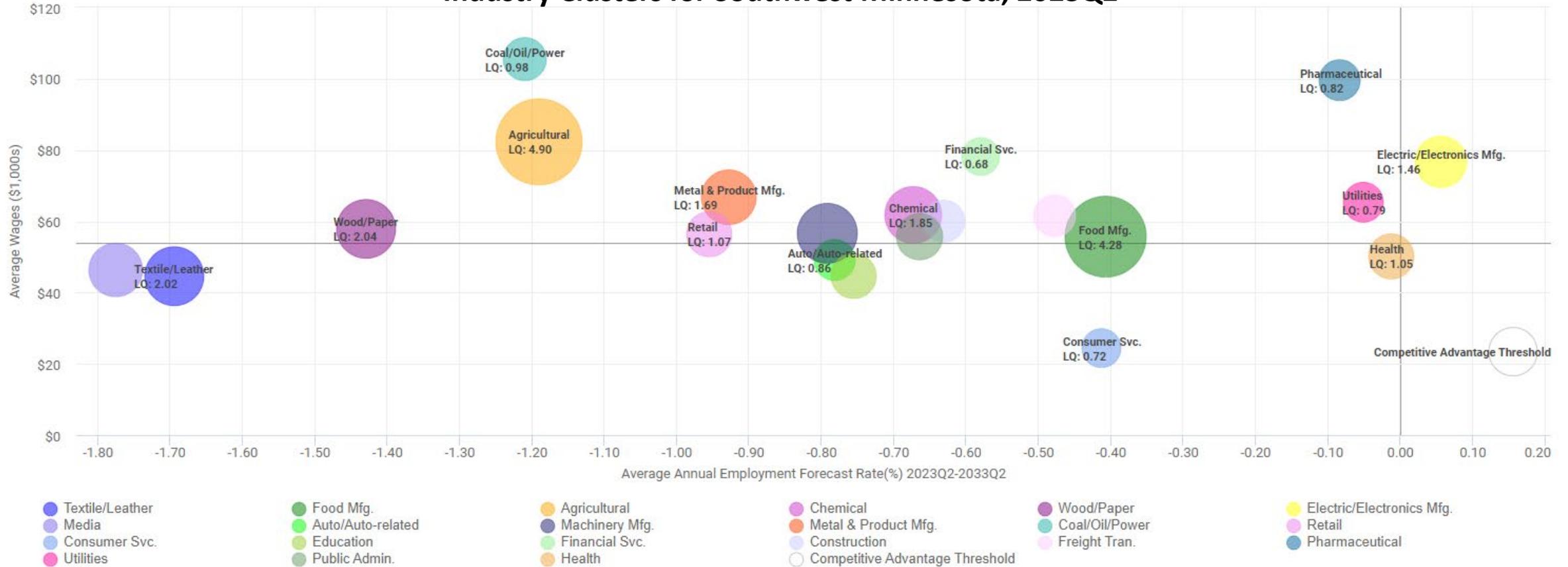
How does your response vary by community?



# Labor Market Workforce Forecast

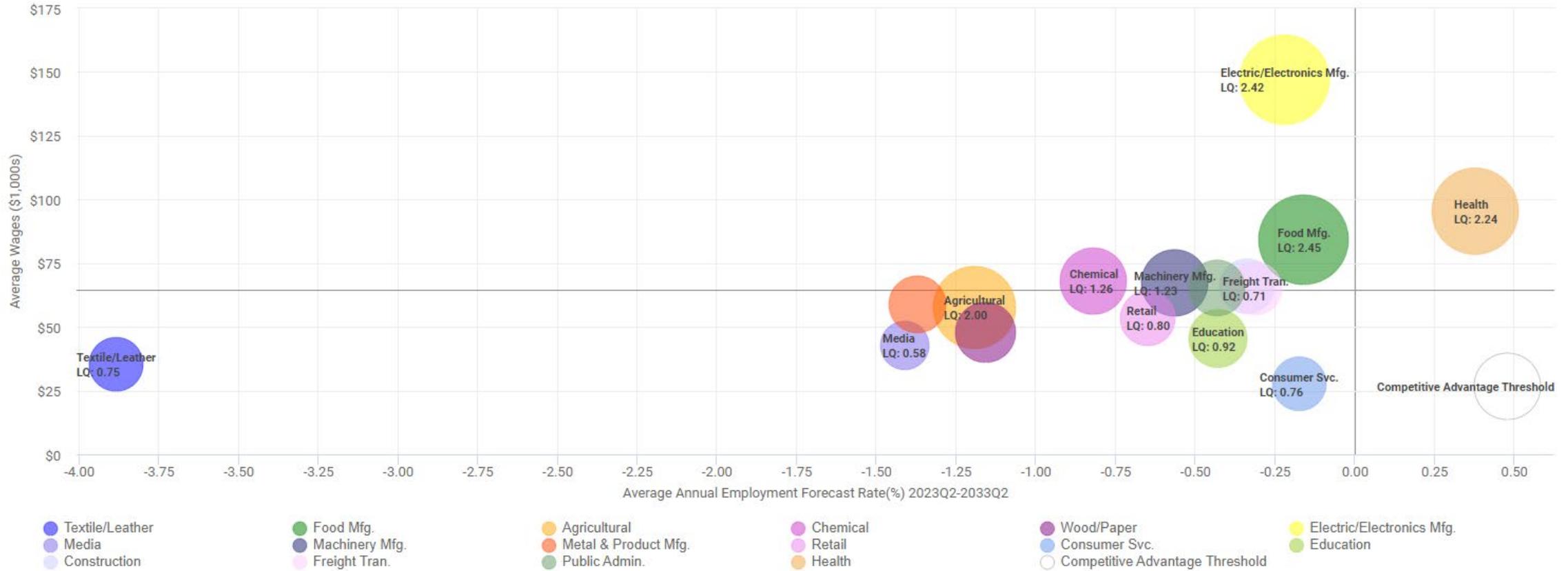
Southwest

## Industry Clusters for Southwest Minnesota, 2023Q2



# Labor Market Workforce Forecast

## Industry Clusters for Southeast Minnesota, 2023Q2

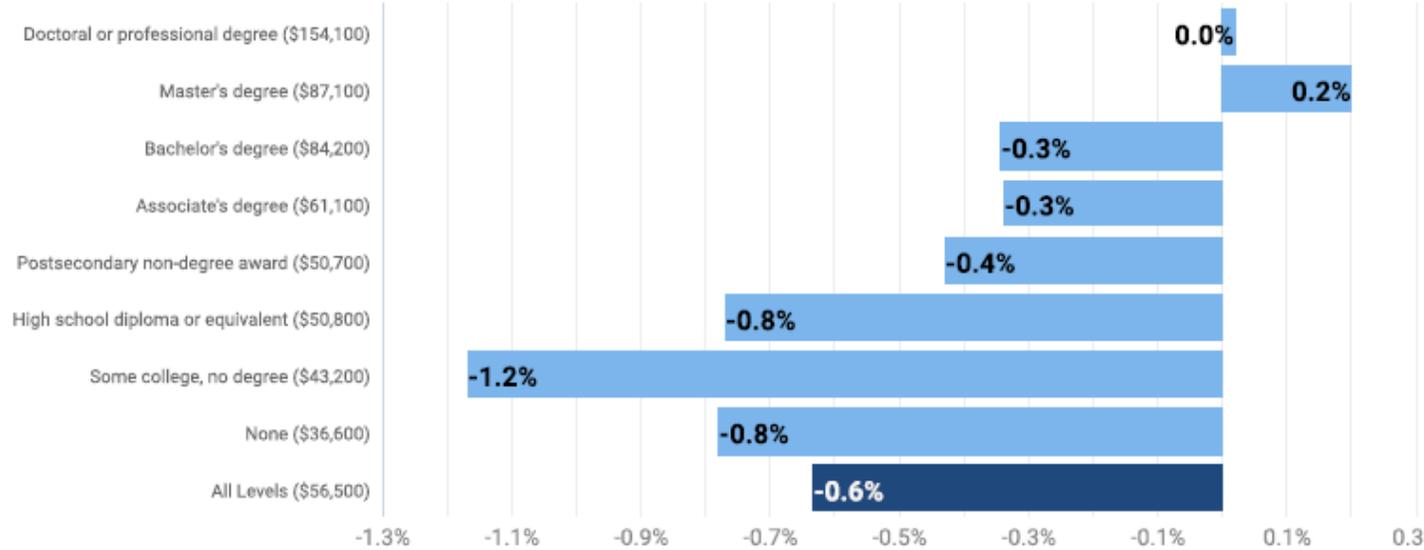


# Quantifying Talent Shortages

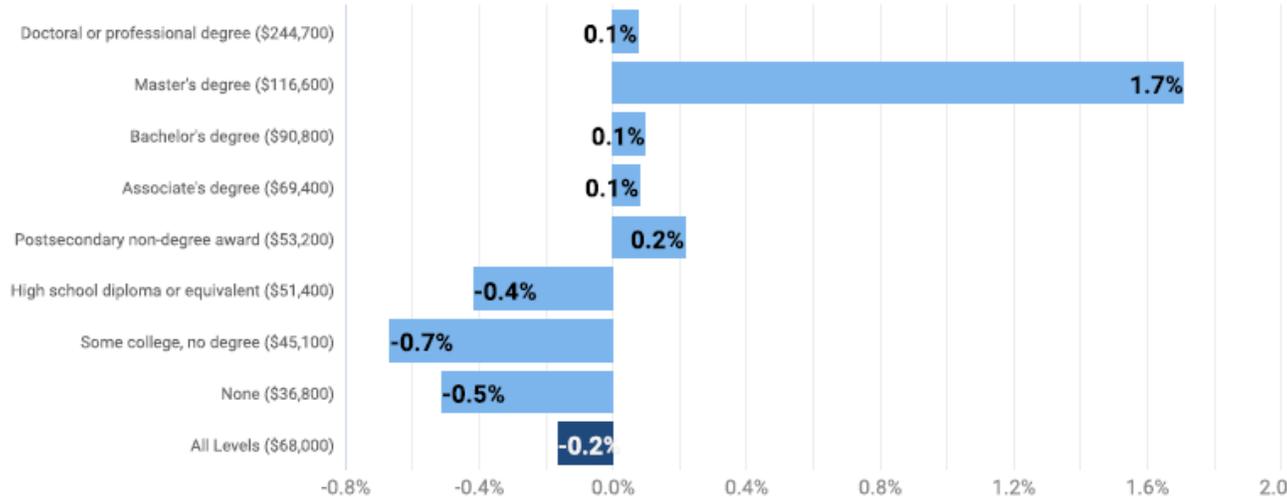
## Forecast

Southwest  
Southeast

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



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



Southwest  
unemployment rate:  
**2.4%**

Southeast  
unemployment rate:  
**2.1%**

\*As of 2023Q2

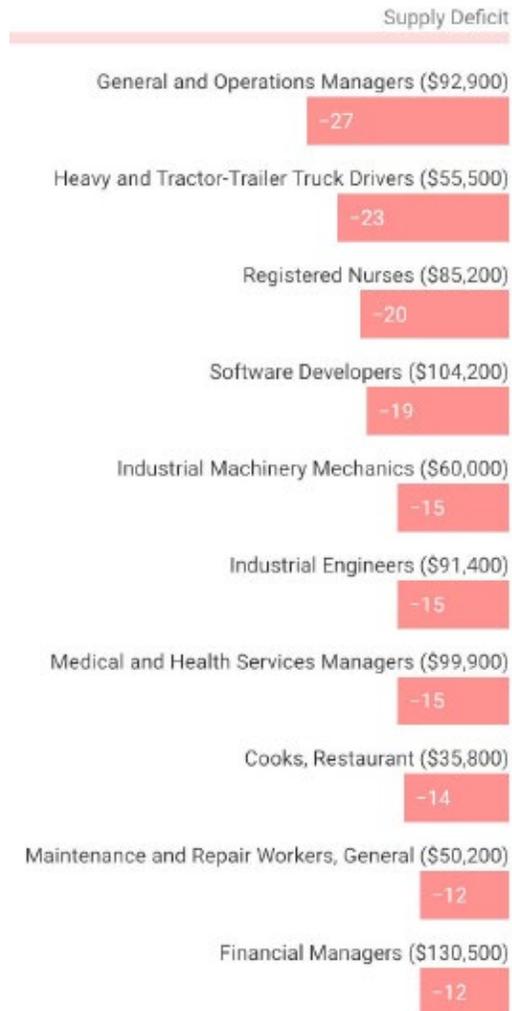


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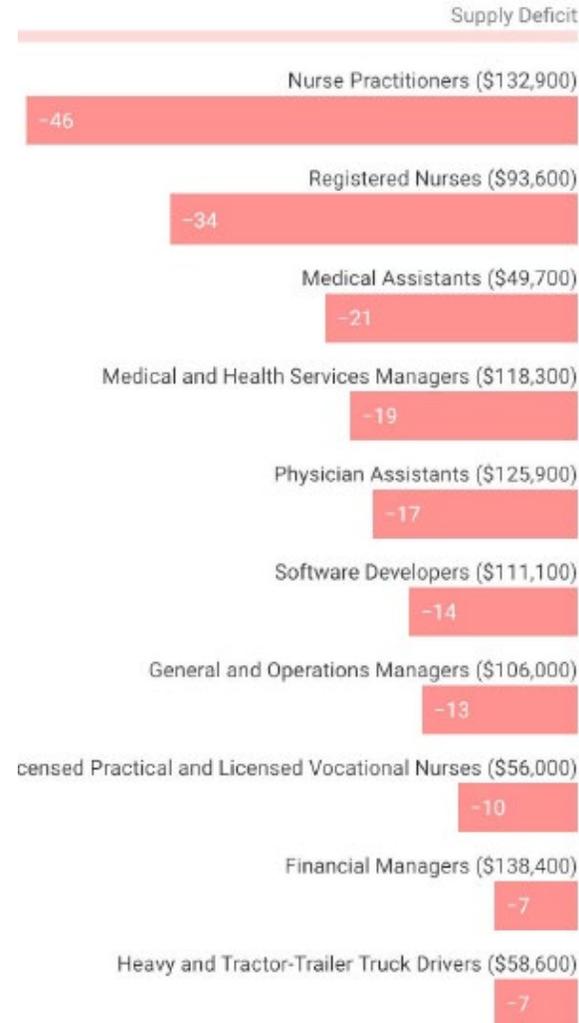
# Talent Shortage *Occupation Gaps*

## Southwest Southeast

### Southwest



### Southeast



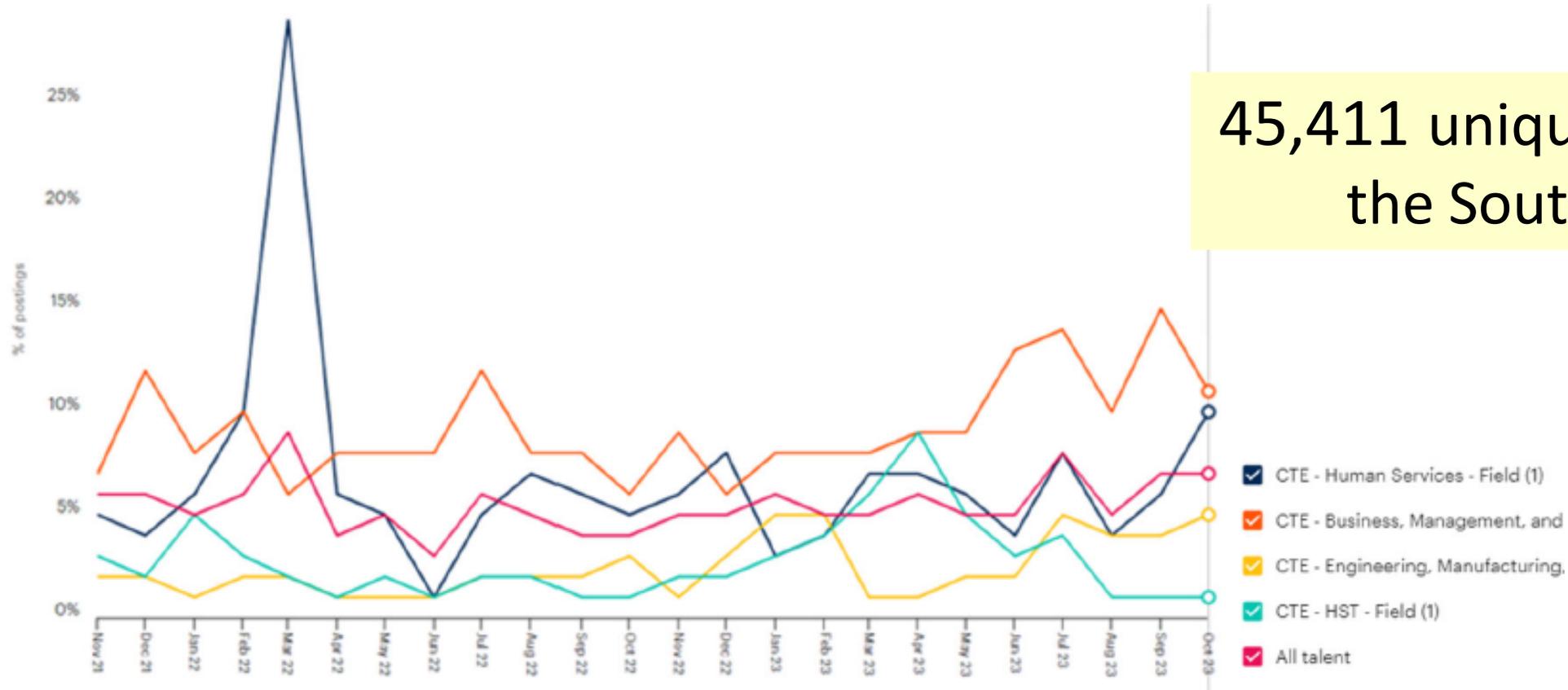
### New in 2023

- In the Southwest, General & Operations Manager is now the top occupation forecasting shortages, while Nursing roles still rank in the top positions in the Southeast.
- Six of the top ten occupations forecasting shortages in the SE are in Health Science Technology

# Emerging Career Paths

Southwest

### Total Remote Job Postings Advertised Monthly in Southwest Minnesota, October 2022-20



45,411 unique job postings in the Southwest (-4%)

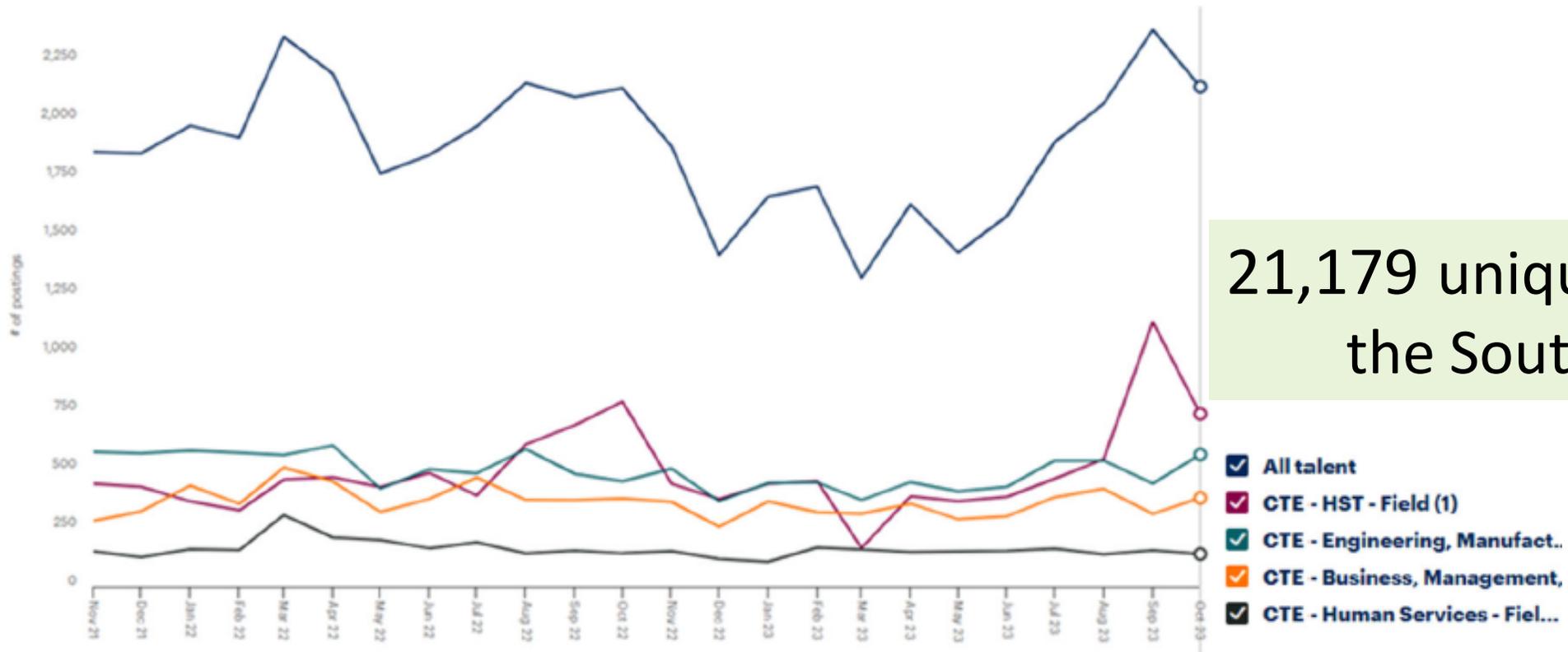
SOURCE: Gartner TalentNeuron Plan accessed 11/20/2023



# Emerging Career Paths

Southeast

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



21,179 unique job postings in the Southeast (-12%)

SOURCE: Gartner TalentNeuron Plan accessed 11/28/2023

# Career Fields

# Southwest

**CTE Field Employment and Wages in Southwest Minnesota, 2023Q2<sup>1</sup>**

CTE Field	Current 2023Q2 Estimates							5-Year History	
	2023Q2 Empl	2023 Avg Entry-Level Wages	2023 Avg Ann Wages	LQ	Unempl	Unempl Rate	Online Job Ads 10/20/2023-11/20/2023 <sup>3</sup>	Empl Change	Ann %
Health Science Technology	27,226	\$35,800	\$78,200	0.92	549	1.8%	3,406	-2,366	-1.7%
Human Services	49,490	\$40,600	\$54,800	0.98	1,152	2.3%	2,001	-453	-0.2%
Arts, Communications, and Information Systems	9,552	\$49,500	\$73,000	0.64	227	2.4%	417	-969	-1.9%
Business, Management, and Administration	125,595	\$36,500	\$53,100	0.87	4,476	3.2%	6,292	-3,404	-0.5%
Engineering, Manufacturing, and Technology	94,145	\$40,600	\$53,800	1.18	3,549	3.3%	3,987	-2,102	-0.4%
Agriculture, Food, and Natural Resources*	31,325	\$37,600	\$54,900	1.85	845	2.6%	788	-932	-0.6%
<b>Total - All Occupations</b>	<b>324,233</b>	<b>\$31,100</b>	<b>\$56,500</b>	<b>1.00</b>	<b>10,391</b>	<b>2.9%</b>	<b>16,469</b>	<b>-9,913</b>	<b>-0.6%</b>

## CTE Field Baseline Employment Forecast for Southwest 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	27,226	11,940	5,482	6,467	-9	0.0%
Human Services	49,490	25,123	12,039	13,810	-727	-0.3%
Arts, Communications, and Information Systems	9,552	3,828	1,497	2,610	-279	-0.6%
Business, Management, and Administration	125,595	75,105	34,547	46,073	-5,515	-0.9%
Engineering, Manufacturing, and Technology	94,145	48,135	19,257	31,603	-2,725	-0.6%
Agriculture, Food, and Natural Resources*	31,325	17,125	7,842	10,640	-1,358	-0.9%
<b>Total - All Occupations</b>	<b>324,233</b>	<b>173,975</b>	<b>77,850</b>	<b>106,307</b>	<b>-10,182</b>	<b>-0.6%</b>

# Career Fields

## Southeast

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

CTE Field	Current 2023Q2 Estimates						5-Year History		
	2023Q2 Empl	2023 Avg Entry-Level Wages	2023 Avg Ann Wages	LQ	Unempl	Unempl Rate	Online Job Ads 10/29/2023-11/29/2023 <sup>3</sup>	Empl Change	Ann %
Health Science Technology	36,517	\$32,600	\$110,700	2.27	499	1.4%	1,894	2,123	1.2%
Human Services	25,887	\$41,300	\$55,500	0.94	548	2.0%	971	634	0.5%
Arts, Communications, and Information Systems	5,072	\$56,600	\$84,500	0.62	103	1.9%	402	-349	-1.3%
Business, Management, and Administration	67,009	\$37,800	\$55,100	0.86	2,061	2.9%	3,470	-28	0.0%
Engineering, Manufacturing, and Technology	36,858	\$42,200	\$56,700	0.85	1,146	2.9%	1,584	-642	-0.3%
Agriculture, Food, and Natural Resources*	10,302	\$39,500	\$58,400	1.12	247	2.3%	296	-424	-0.8%
<b>Total - All Occupations</b>	<b>176,190</b>	<b>\$32,600</b>	<b>\$68,000</b>	<b>1.00</b>	<b>4,460</b>	<b>2.4%</b>	<b>8,595</b>	<b>1,424</b>	<b>0.2%</b>

## CTE Field Baseline Employment Forecast for Southeast 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	36,517	15,707	6,735	7,974	998	0.5%
Human Services	25,887	13,905	6,371	7,424	110	0.1%
Arts, Communications, and Information Systems	5,072	2,116	729	1,369	18	0.1%
Business, Management, and Administration	67,009	41,972	18,836	24,963	-1,827	-0.6%
Engineering, Manufacturing, and Technology	36,858	19,236	7,496	12,377	-637	-0.3%
Agriculture, Food, and Natural Resources*	10,302	5,796	2,492	3,580	-276	-0.5%
<b>Total - All Occupations</b>	<b>176,190</b>	<b>95,677</b>	<b>41,523</b>	<b>55,640</b>	<b>-1,486</b>	<b>-0.2%</b>

# Zero Unemployment

## Southwest

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	505	\$61,000	1.54	0	n/a	5	-31	-1.2%	242	103	154	-15	-0.6%
11-3012	Administrative Services Managers	451	\$114,800	0.94	0	n/a	1	89	4.5%	175	73	110	-8	-0.4%
49-9043	Maintenance Workers, Machinery	253	\$57,100	1.98	0	n/a	1	-1	0.0%	133	62	72	-1	-0.1%
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	244	\$49,200	2.08	0	n/a	n/a	-53	-3.9%	110	40	80	-9	-0.8%
29-1131	Veterinarians	194	\$140,300	1.09	0	n/a	24	-5	-0.5%	46	20	13	12	1.2%
29-1215	Family Medicine Physicians	178	\$291,900	0.82	0	n/a	14	-66	-6.1%	21	17	8	-3	-0.4%
29-1216	General Internal Medicine Physicians	144	\$306,700	0.96	0	n/a	8	-21	-2.7%	16	13	6	-4	-0.5%
19-3034	School Psychologists	129	\$76,800	1.07	0	n/a	30	-24	-3.4%	41	13	33	-6	-0.9%
51-8013	Power Plant Operators	124	\$97,600	1.90	0	n/a	1	57	13.1%	30	17	34	-21	-3.6%
29-1031	Dietitians and Nutritionists	117	\$69,800	0.75	0	n/a	12	0	0.0%	36	20	18	-2	-0.4%
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	114	\$65,900	1.58	0	n/a	1	-42	-6.0%	52	17	40	-4	-0.8%
19-2041	Environmental Scientists and Specialists, Including Health	112	\$73,100	0.73	0	n/a	10	2	0.3%	48	12	38	-2	-0.3%

# Zero Unemployment

# Southeast

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
11-3012	Administrative Services Managers	296	\$117,600	1.13	0	n/a	1	90	7.5%	124	49	74	1	0.1%
21-2021	Directors, Religious Activities and Education	212	\$62,700	1.19	0	n/a	1	4	0.4%	105	44	65	-4	-0.4%
29-1218	Obstetricians and Gynecologists	196	\$260,000	7.61	0	n/a	7	3	0.3%	26	19	9	-1	-0.1%
43-3051	Payroll and Timekeeping Clerks	149	\$54,800	0.83	0	n/a	4	-18	-2.3%	61	35	41	-15	-2.1%
51-8031	Water and Wastewater Treatment Plant and System Operators	124	\$68,000	0.91	0	n/a	5	7	1.1%	50	22	35	-7	-1.2%
29-1041	Optometrists	106	\$154,500	2.23	0	n/a	8	12	2.5%	22	11	5	6	1.1%
29-1223	Psychiatrists	99	\$301,800	3.25	0	n/a	10	5	0.9%	15	9	4	1	0.2%
19-3033	Clinical and Counseling Psychologists	98	\$140,400	1.28	0	n/a	9	23	5.3%	34	15	17	2	0.4%
43-5031	Public Safety Telecommunicators	94	\$61,700	0.95	0	n/a	12	11	2.6%	47	20	29	-1	-0.2%
43-5051	Postal Service Clerks	94	\$57,100	1.12	0	n/a	2	22	5.5%	34	23	18	-6	-1.3%
21-2099	Religious Workers, All Other	86	\$44,100	0.95	0	n/a	n/a	3	0.7%	53	27	27	-1	-0.3%
29-1131	Veterinarians	83	\$109,000	0.85	0	n/a	8	3	0.7%	20	9	6	5	1.3%
49-9043	Maintenance Workers, Machinery	79	\$58,900	1.14	0	n/a	n/a	-9	-2.1%	41	19	22	0	-0.1%
00-0000	<b>Total - All Occupations</b>	<b>176,190</b>	<b>\$68,000</b>	<b>1.00</b>	<b>4,460</b>	<b>2.4%</b>	<b>8,573</b>	<b>1,424</b>	<b>0.2%</b>	<b>95,677</b>	<b>41,523</b>	<b>55,640</b>	<b>-1,486</b>	<b>-0.2%</b>



# 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*

Southwest  
Southeast

### Southwest

- **2023Q2 Employment:** 27,226 (8.4% of SW employment)
- **Average Wage:** \$78,200 (compared to \$56,500 across all occupations)
- **Location Quotient:** 0.92
- **2023Q2 Unemployment:** 549 (1.8% rate)
- **30-Day Job Ads:** 3,406\*
- **5-Year Ann Avg Employment Change:** -1.7%
- **Forecast 5-Year Ann Employment Change:** 0.0%
- **Total 5-Year Demand:** 11,940

### Southeast

- **2023Q2 Employment:** 36,517 (20.7% of SE employment)
- **Average Wage:** \$110,700 (compared to \$68,000 across all occupations)
- **Location Quotient:** 2.27
- **2023Q2 Unemployment:** 499 (1.4% rate)
- **30-Day Job Ads:** 1,894\*
- **5-Year Ann Avg Employment Change:** 1.2%
- **Forecast 5-Year Ann Employment Change:** 0.5%
- **Total 5-Year Demand:** 15,707



# Health Science Technology

## *Top Occupation & Award Gaps*

Southwest

Southeast

### Southwest

#### Top Occupation Gaps

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

#### Top Award Gaps

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

### Southeast

#### Top Occupation Gaps

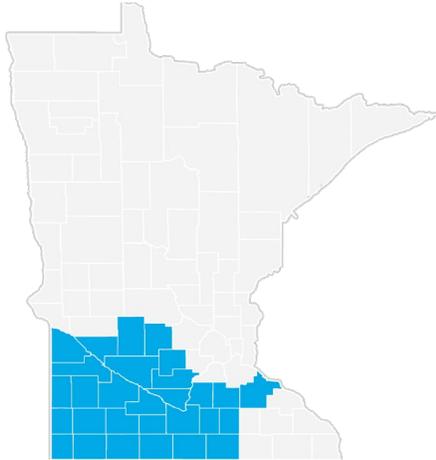
- Nurse Practitioners
- Registered Nurses
- Medical Assistants
- Medical & Health Services Managers
- Physician Assistants

#### Top Award Gaps

- Medical Assistants
- Physician Assistants
- Medical Secretaries & Administrative Assistants
- Nurse Practitioners
- Nursing Assistants

# Health Science Technology

## Southwest



**Target Occupations** (all HW, HD, HS, OG)  
Registered Nurses  
Medical & Health Services Managers (AG)  
Dental Assistants  
Pharmacists (AG)  
Dental Hygienists

### **Gateway Occupations** (all OG)

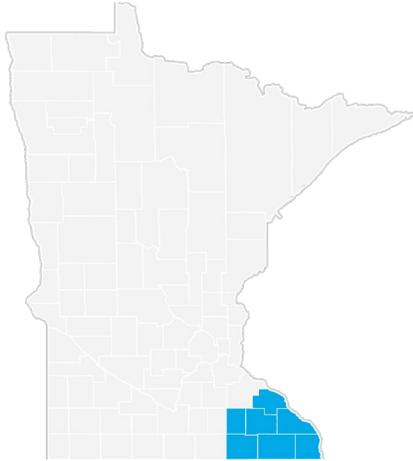
Licensed Practical Nurses (HS, AG)  
Medical Secretaries & Administrative Assistants (HD, AG)  
Medical Records Specialists (HS, HD, AG)  
Health Technologists & Technicians (HS, HD, AG)  
Ophthalmic Medical Technicians (HS, HD)

### **Origin Occupations** (all OG)

Nursing Assistants (HS)  
Home Health Aides (HD)  
Medical Assistants (HS, HD, AG)  
Pharmacy Technicians (HD, AG)  
Veterinary Technologists & Technicians (HS, HD)

# Health Science Technology

## Southeast



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

Registered Nurses (AG)

Nurse Practitioners (AG)

Physicians, All Other (AG)

Medical & Health Services Managers

Physician Assistants (AG)

### Gateway Occupations (all HD, OG)

Medical Assistants (HS, AG)

Medical Secretaries & Administrative Assistants (AG)

Licensed Practical Nurses (HS, AG)

Pharmacy Technicians

Medical Records Specialists (HS)

### Origin Occupations (all HD)

Nursing Assistants (HS, OG, AG)

Home Health Aides

Healthcare Support Workers, All Other (AG)

Phlebotomists (HS)

Veterinary Technologists & Technicians (HS, OG)

# Health Science Technology

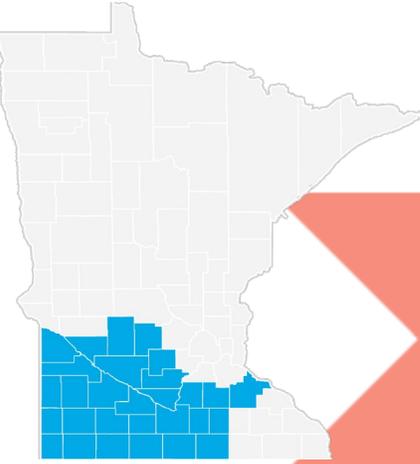
Southwest  
Southeast

## Southwest Region Featured Pathway

Origin

Gateway

Target



Nursing Assistants  
(HS, OG)

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

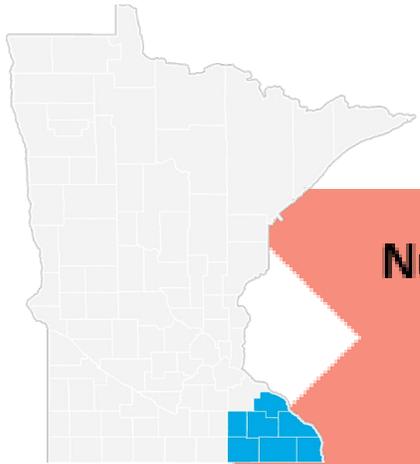
Registered Nurses  
(HW, HS, HD, OG)

## Southeast Region Featured Pathway

Origin

Gateway

Target



Nursing Assistants  
(HS, OG, AG)

Licensed Practical  
and Licensed  
Vocational Nurses  
(HS, AG)

Nurse Practitioner  
(HW, HS, HD, OG,  
AG)

# Human Services

## *Summary Statistics*

Southwest  
Southeast

### Southwest

- **2023Q2 Employment:** 49,490 (15.3% of SW employment)
- **Average Wage:** \$54,800 (compared to \$56,500 across all occupations)
- **Location Quotient:** 0.98
- **2023Q2 Unemployment:** 1,152 (2.3% rate)
- **30-Day Job Ads:** 2,001\*
- **5-Year Ann Avg Employment Change:** -0.2%
- **Forecast 5-Year Ann Employment Change:** -0.3%
- **Total 5-Year Demand:** 25,123

### Southeast

- **2023Q2 Employment:** 25,887 (14.7% of SE employment)
- **Average Wage:** \$55,500 (compared to \$68,000 across all occupations)
- **Location Quotient:** 0.94
- **2023Q2 Unemployment:** 548 (2.0% rate)
- **30-Day Job Ads:** 971\*
- **5-Year Ann Avg Employment Change:** 0.5%
- **Forecast 5-Year Ann Employment Change:** 0.1%
- **Total 5-Year Demand:** 13,905



### Southwest

#### Top Occupation Gaps

- Substance, Behavioral, Mental Health Counselors
- Social & Community Service Managers
- Police & Sheriff's Patrol Officers
- Secondary School Teachers
- Child, Family, & School Social Workers

#### Top Award Gaps

- Childcare Workers
- Lawyers
- Hairdressers, Hairstylists, & Cosmetologists
- Social & Human Service Assistants
- Firefighters

### Southeast

#### Top Occupation Gaps

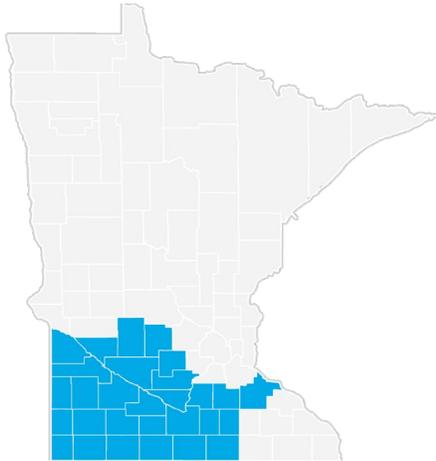
- Emergency Medical Technicians
- Substance, Behavioral, Mental Health Counselors
- Secondary School Teachers
- Elementary School Teachers
- Health Specialties Teachers, Postsecondary

#### Top Award Gaps

- Emergency Medical Technicians
- Childcare Workers
- Lawyers
- Paramedics
- Clergy

# Human Services

## Southwest



**Target Occupations** (all HW, HS, HD, OG)  
Child, Family, & School Social Workers  
Lawyers (AG)  
Social & Community Service Managers  
Guidance & Career Counselors  
Compliance Officers

### Gateway Occupations

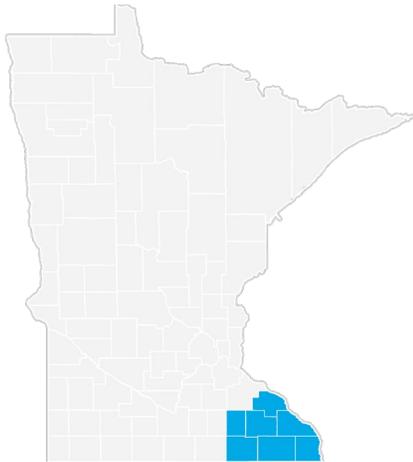
Social & Human Service Assistants (HD, AG)  
License Clerks (HD, OG)  
Substance Abuse, Behavioral Disorder, & Mental Health Counselors (HS, HD, OG)  
Correctional Officers (AG)  
Substitute Teachers (HS, HD)

### Origin Occupations

Personal Care Aides (HD, AG)  
Teaching Assistants (HS)  
Childcare Workers (AG)  
Preschool Teachers (HS, HD, OG)  
Cosmetologists (HS, HD, OG, AG)

# Human Services

## Southeast



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

Lawyers (AG)  
Social & Community Service Managers  
Compliance Officers  
Social Workers, All Other  
Health Specialties Teachers, Postsecondary

### Gateway Occupations (all HS, OG)

Elementary School Teachers  
Secondary Teachers  
Middle School Teachers  
Substance Abuse, Behavioral Disorder, & Mental Health Counselors (HD)  
Child, Family, & School Social Workers (HD)

### Origin Occupations

Personal Care Aides (HD, AG)  
Teaching Assistants (HS)  
Childcare Workers (AG)  
Preschool Teachers (HS, HD)  
Emergency Medical Technicians (HS, HD, OG, AG)

# Human Services

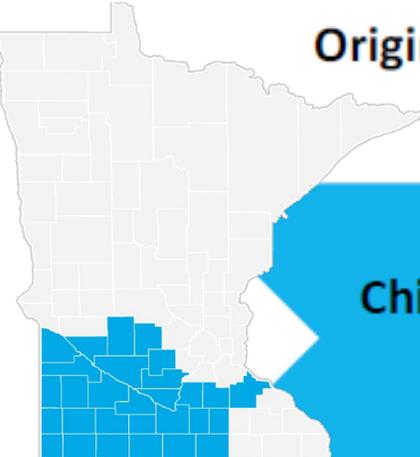
Southwest  
Southeast

## Southwest Region Featured Pathway

Origin

Gateway

Target



Childcare Workers  
(AG)

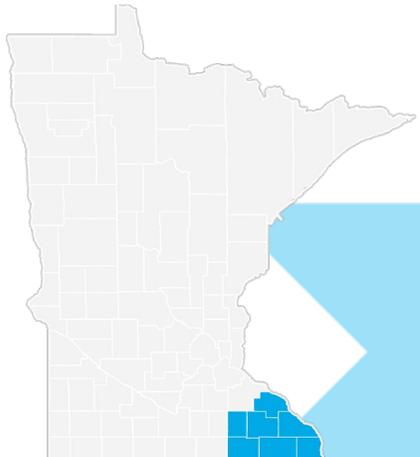
Social and Human  
Service Assistants  
(HD, AG)

Social and  
Community Service  
Managers  
(HW, HS, HD, OG)

## Southeast Region Featured Pathway

Gateway

Target



Elementary School  
Teachers  
(HS, OG)

Secondary Teachers  
(HS, OG)

Health Specialties  
Teachers, Postsecondary  
(HW, HS, HD, OG)

# Arts, Communications, & Information Systems

## *Summary Statistics*

Southwest  
Southeast

### Southwest

- **2023Q2 Employment:** 9,552 (2.9% of SW employment)
- **Average Wage:** \$73,000 (compared to \$56,500 across all occupations)
- **Location Quotient:** 0.64
- **2023Q2 Unemployment:** 227 (2.4% rate)
- **30-Day Job Ads:** 417\*
- **5-Year Ann Avg Employment Change:** -1.9%
- **Forecast 5-Year Ann Employment Change:** -0.6%
- **Total 5-Year Demand:** 3,828

### Southeast

- **2023Q2 Employment:** 5,072 (2.9% of SE employment)
- **Average Wage:** \$84,500 (compared to \$68,000 across all occupations)
- **Location Quotient:** 0.62
- **2023Q2 Unemployment:** 103 (1.9% rate)
- **30-Day Job Ads:** 402\*
- **5-Year Ann Avg Employment Change:** -1.3%
- **Forecast 5-Year Ann Employment Change:** 0.1%
- **Total 5-Year Demand:** 2,116



# Arts, Communications, & Information Systems

## *Top Occupation & Award Gaps*

Southwest

Southeast

### Southwest

#### Top Occupation Gaps

- Software Developers
- Computer Systems Analysts
- Information Security Analysts
- Software Quality Assurance Analysts & Testers
- Musicians & Singers

#### Top Award Gaps

- Computer User Support Specialists
- Graphic Designers
- Prepress technicians & Workers
- Art Directors
- Audio & Video Technicians

### Southeast

#### Top Occupation Gaps

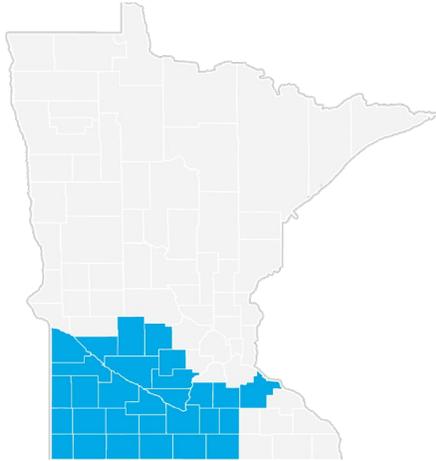
- Software Developers
- Computer Systems Analysts
- Web Developers
- Telecommunications Line Installers & Repairers
- Software Quality Assurance Analysts & Testers

#### Top Award Gaps

- Computer User Support Specialists
- Musicians & Singers
- Audio & Video Technicians
- Telecommunications Equipment Installers
- Commercial & Industrial Designers

# Arts, Communications, & Information Systems

## Southwest



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

- Software Developers
- Computer Systems Analysts
- Computer Network Support Specialists
- Computer Occupations, All Other
- Telecommunications Equipment Installers (AG)

### Gateway Occupations

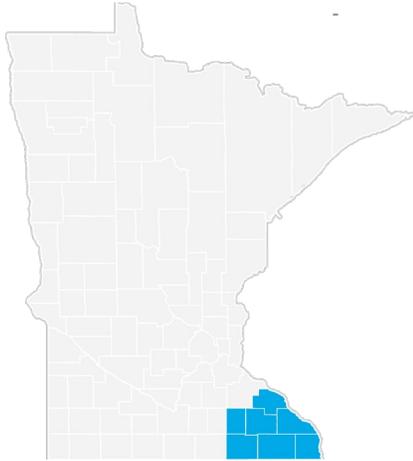
- Printing Press Operators (AG)
- Graphic Designers (HS, AG)
- Telecommunications Line Installers & Repairers (HD, OG)
- Entertainers & Performers, Sports (HD)
- Camera Operators, Television, Video, & Film (HS)

### Origin Occupations

- Prepress Technicians & Workers (HS, AG)
- Print Binding & Finishing Workers
- Broadcast Announcers & Radio Disc Jockeys (HS)
- Floral Designers
- News Analysts, Reporters, & Journalists (HS)

# Arts, Communications, & Information Systems

## Southeast



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

- Software Developers
- Computer Systems Analysts
- Computer Network Support Specialists
- Computer Occupations, All Other (emerging occs)
- Software Quality Assurance Analysts

### Gateway Occupations

- Computer User Support Specialists (HS, OG, AG)
- Graphic Designers (HS)
- Telecommunications Equipment Installers & Repairers (HS, HD, OG, AG)
- Printing Press Operators
- Photographers

### Origin Occupations

- Floral Designers
- Broadcast Announcers & Radio Disc Jockeys (HS)
- Disc Jockeys, Except Radio
- Dancers (HD, AG)
- Craft Artists

# Arts, Communications, & Information Systems

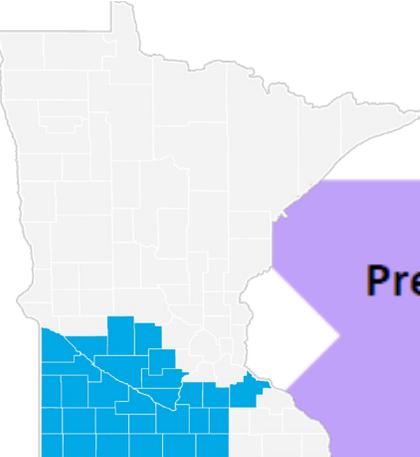
Southwest  
Southeast

## Southwest Region Featured Pathway

Origin

Gateway

Target



Prepress Technicians  
and Workers  
(HS, AG)

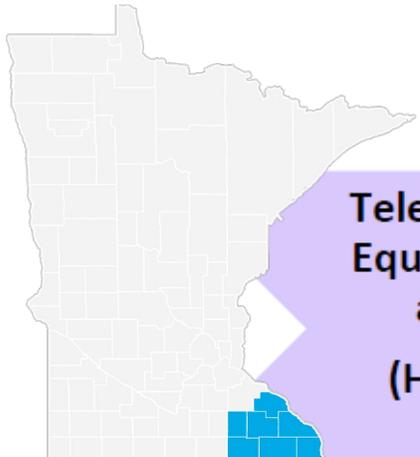
Telecommunications  
Line Installers and  
Repairers  
(HD, OG)

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

## Southeast Region Featured Pathway

Gateway

Target



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

Computer User Support  
Specialist  
(HS, OG, AG)

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

# Business, Management, & Administration *Summary Statistics*

Southwest  
Southeast

## Southwest

- **2023Q2 Employment:** 125,595 (38.7% of SW employment)
- **Average Wage:** \$53,100 (compared to \$56,500 across all occupations)
- **Location Quotient:** 0.87
- **2023Q2 Unemployment:** 4,476 (3.2% rate)
- **30-Day Job Ads:** 6,292\*
- **5-Year Ann Avg Employment Change:** -0.5%
- **Forecast 5-Year Ann Employment Change:** -0.9%
- **Total 5-Year Demand:** 125,595

## Southeast

- **2023Q2 Employment:** 67,009 (38.0% of SE employment)
- **Average Wage:** \$55,100 (compared to \$68,000 across all occupations)
- **Location Quotient:** 0.86
- **2023Q2 Unemployment:** 2,061 (2.9% rate)
- **30-Day Job Ads:** 3,470\*
- **5-Year Ann Avg Employment Change:** 0.0%
- **Forecast 5-Year Ann Employment Change:** -0.6%
- **Total 5-Year Demand:** 41,972



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

Southwest  
Southeast

## Southwest

### Top Occupation Gaps

- General & Operations Managers
- Managers, All Other
- Management Analysts
- Project Management Specialists
- Business Operations Specialists, All Other

### Top Award Gaps

- General & Operations Managers
- Bookkeeping, Accounting, & Auditing Clerks
- Human Resources Specialists
- Project Management Specialists
- Management Analysts

## Southeast

### Top Occupation Gaps

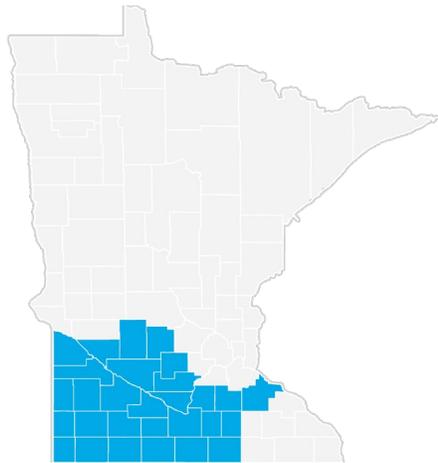
- General & Operations Managers
- Financial Managers
- Restaurant Cooks
- Market Research Analysts & Specialists
- Computer & Information Systems Managers

### Top Award Gaps

- Bookkeeping, Accounting, & Auditing Clerks
- Supervisors of Food Prep & Serving Workers
- Food Service Managers
- Restaurant Cooks
- Customer Service Representatives

# Business, Management, & Administration

## Southwest



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

General & Operations Managers (AG)

Accountants & Auditors

Managers, All Other

Market Research Analysts & Marketing Specialists

Business Operations Specialists (AG)

### Gateway Occupations (all AG)

Secretaries and Administrative Assistants

Supervisors of Retail Workers

Bookkeeping, Accounting, & Auditing Clerks (HS)

Real Estate Sales Agents (HD, OG)

Real Estate, & Community Association Managers (HD, OG)

### Origin Occupations

Cashiers

Retail Salespersons

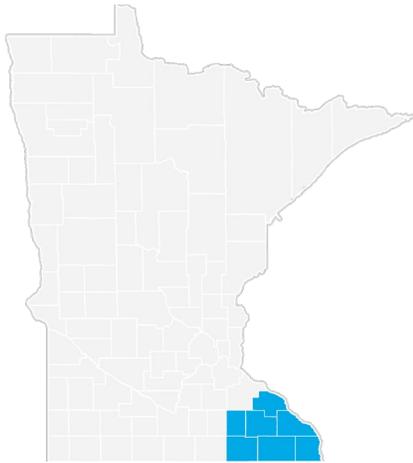
Fast Food & Counter Workers (HD)

Office Clerks, General (HD, AG)

Stockers & Order Fillers (HD)

# Business, Management, & Administration

## Southeast



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

General & Operations Managers

Accountants & Auditors

Business Operations Specialists

Market Research Analysts & Marketing Specialists

Human Resources Specialists

### Gateway Occupations

Office Clerks, General (HD, AG)

Secretaries & Administrative Assistants (AG)

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

Supervisors of Retail Sales Workers

Billing & Posting Clerks (HD, OG)

### Origin Occupations

Cashiers

Retail Salespersons

Fast Food & Counter Workers

Customer Service Representative (AG)

Stockers & Order Fillers (HD)

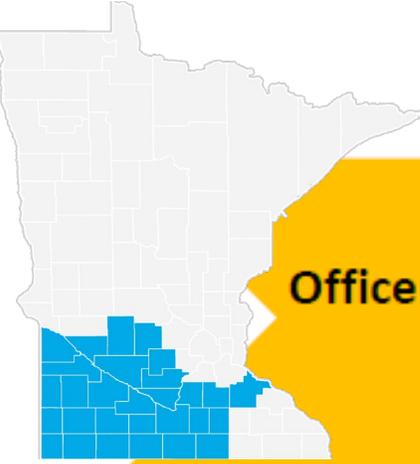
# Business, Management, & Administration

Southwest  
Southeast

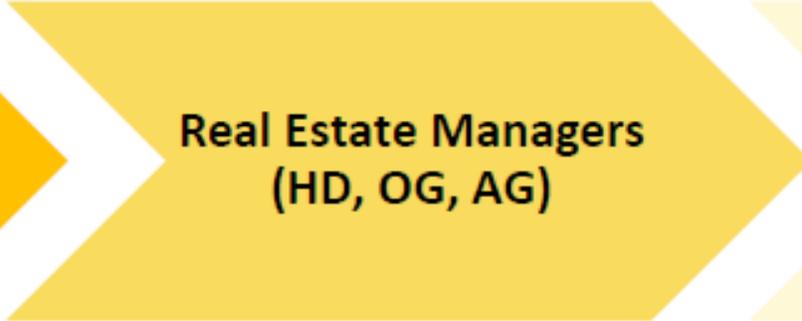
Origin

Southwest Region Featured Pathway  
Gateway

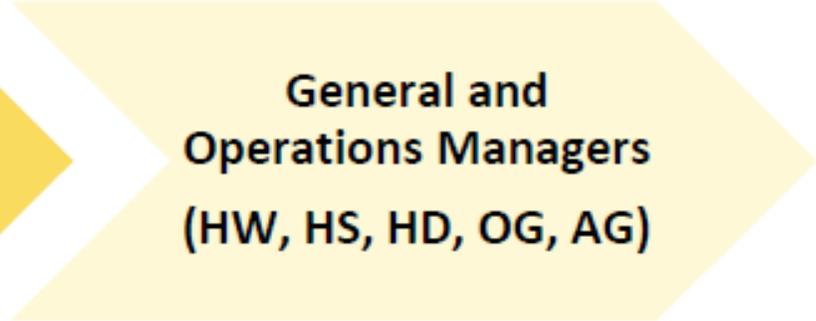
Target



Office Clerks, General  
(HD, AG)



Real Estate Managers  
(HD, OG, AG)



General and  
Operations Managers  
(HW, HS, HD, OG, AG)

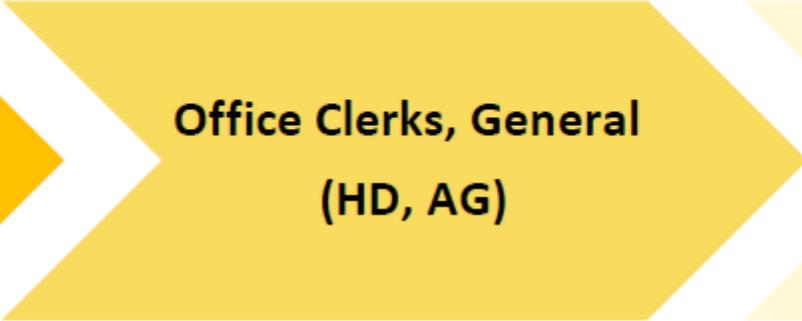
Origin

Southeast Region Featured Pathway  
Gateway

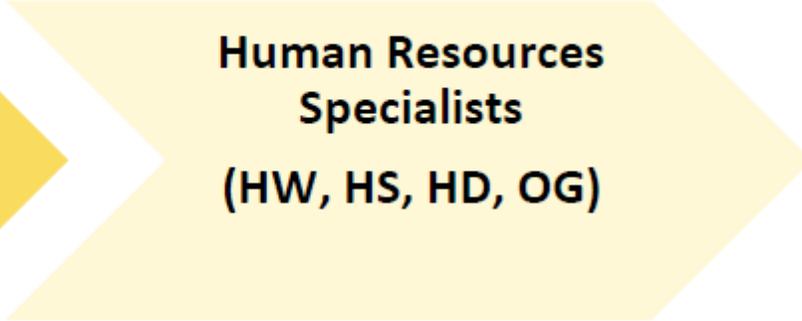
Target



Interviewers, Except  
Eligibility and Loan



Office Clerks, General  
(HD, AG)



Human Resources  
Specialists  
(HW, HS, HD, OG)

# Engineering, Manufacturing, & Technology

## *Summary Statistics*

Southwest  
Southeast

### Southwest

- **2023Q2 Employment:** 94,145 (29.0% of SW employment)
- **Average Wage:** \$53,800 (compared to \$56,500 across all occupations)
- **Location Quotient:** 1.18
- **2023Q2 Unemployment:** 3,549 (3.3% rate)
- **30-Day Job Ads:** 3,987\*
- **5-Year Ann Avg Employment Change:** -0.4%
- **Forecast 5-Year Ann Employment Change:** -0.6%
- **Total 5-Year Demand:** 94,145

### Southeast

- **2023Q2 Employment:** 36,858 (20.9% of SE employment)
- **Average Wage:** \$56,700 (compared to \$68,000 across all occupations)
- **Location Quotient:** 0.85
- **2023Q2 Unemployment:** 1,146 (2.9% rate)
- **30-Day Job Ads:** 1,584\*
- **5-Year Ann Avg Employment Change:** -0.3%
- **Forecast 5-Year Ann Employment Change:** -0.3%
- **Total 5-Year Demand:** 19,236



# Engineering, Manufacturing, & Technology

Southwest  
Southeast

## *Top Occupation & Award Gaps*

### Southwest

#### Top Occupation Gaps

- Heavy & Tractor Trailer Truck Drivers
- Industrial Machinery Mechanics
- Industrial Engineers
- Maintenance & Repair Workers
- Supervisors of Production & Operating Workers

#### Top Award Gaps

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

### Southeast

#### Top Occupation Gaps

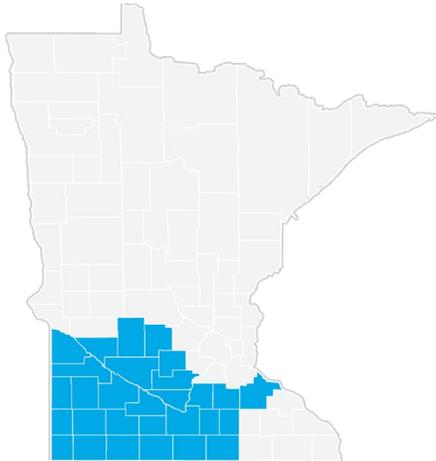
- Heavy & Tractor Trailer Truck Drivers
- Maintenance & Repair Workers
- Industrial Engineers
- Industrial Machinery Mechanics
- Electricians

#### Top Award Gaps

- Industrial Engineers
- HVAC Mechanics
- Industrial Engineering Technologists
- Mechanical Engineers
- Electrical Engineers

# Engineering, Manufacturing, & Tech

## Southwest



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

- Industrial Engineers (AG)
- Construction Managers
- Mechanical Engineers (AG)
- Heating, Air Conditioning, & Refrigeration Mechanics (AG)
- Electrical Engineers

### Gateway Occupations

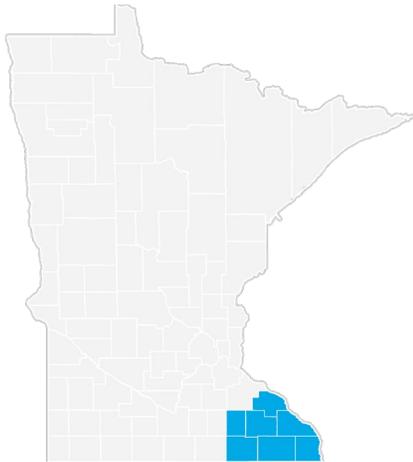
- Heavy & Tractor Trailer Drivers (HS, HD, OG, AG)
- Maintenance & Repair Workers, General (HD, OG, AG)
- Construction Laborers
- Light Truck Drivers (HD, AG)
- Carpenters (OG)

### Origin Occupations

- Laborers & Freight, Stock Movers (HD)
- Team Assemblers
- Packaging & Filling Machine Operators & Tenders (HD, OG)
- Slaughterers & Meat Packers
- Meat, Poultry, & Fish Cutters & Trimmers (HD)

# Engineering, Manufacturing, & Tech

## Southeast



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

Industrial Engineers (AG)  
Construction Managers  
Mechanical Engineers (AG)  
Electrical Engineers (AG)  
Logisticians

### Gateway Occupations

Heavy & Tractor Trailer Drivers (HS, HD, OG)  
Maintenance & Repair Workers, General (OG)  
Construction Laborers  
Carpenters (OG)  
Automotive Service Technicians (HS, OG)

### Origin Occupations

Laborers & Freight, Stock Movers (HD)  
Team Assemblers  
Landscaping & Groundskeeping Workers (HD)  
Slaughterers & Meat Packers (HD)  
Meat, Poultry, & Fish Cutters & Trimmers (HD)

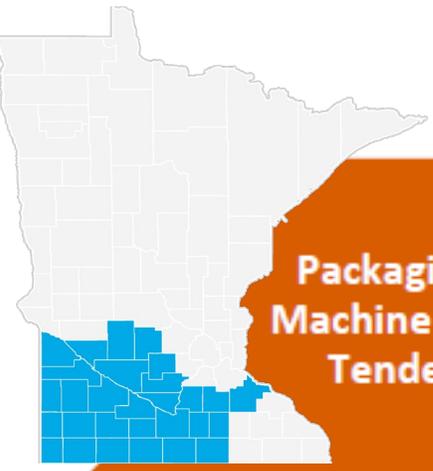
# Engineering, Manufacturing, & Technology

Southwest  
Southeast

## Southwest Region Featured Pathway

Origin

Aligned Occupation



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

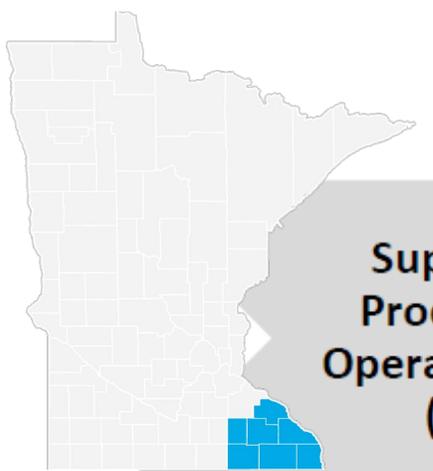
Slaughterers and Meat  
Packers

Supervisors of Production  
and Operating Workers  
(HW, OG, AG)

## Southeast Region Featured Pathway

Aligned Occupation

Target



Supervisors of  
Production and  
Operating Workers  
(HD, OG)

Logisticians  
(HW, HD, HS, OG)

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

# Agriculture, Food, & Natural Resources

Southwest  
Southeast

## *Summary Statistics*

### Southwest

- **2023Q2 Employment:** 31,325 (9.7% of SW employment)
- **Average Wage:** \$54,900 (compared to \$56,500 across all occupations)
- **Location Quotient:** 1.85
- **2023Q2 Unemployment:** 845 (2.6% rate)
- **30-Day Job Ads:** 788\*
- **5-Year Ann Avg Employment Change:** -0.6%
- **Forecast 5-Year Ann Employment Change:** -0.9%
- **Total 5-Year Demand:** 31,325

### Southeast

- **2023Q2 Employment:** 10,302 (5.8% of SE employment)
- **Average Wage:** \$58,400 (compared to \$68,000 across all occupations)
- **Location Quotient:** 1.12
- **2023Q2 Unemployment:** 247 (2.3% rate)
- **30-Day Job Ads:** 296\*
- **5-Year Ann Avg Employment Change:** -0.8%
- **Forecast 5-Year Ann Employment Change:** -0.5%
- **Total 5-Year Demand:** 5,796



# Agriculture, Food, & Natural Resources

## *Top Occupation & Award Gaps*

Southwest

Southeast

### Southwest

#### Top Occupation Gaps

- Farm Equipment Mechanics & Service Techs
- Plumbers, Pipefitters, & Steamfitters
- Veterinary Technologists & Technicians
- Veterinarians
- HVAC Mechanics

#### Top Award Gaps

- Farmers, Ranchers, & Agricultural Managers
- HVAC Mechanics
- Veterinarians
- Food Scientists & Technologists
- Landscaping & Groundskeeping Workers

### Southeast

#### Top Occupation Gaps

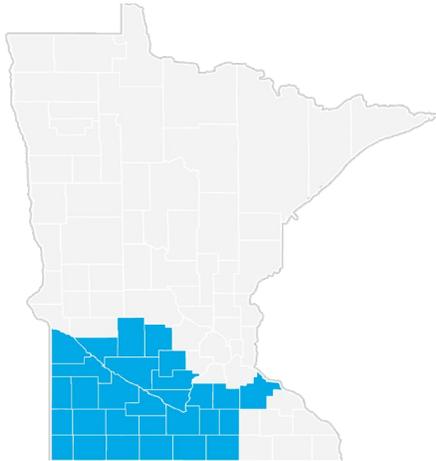
- Veterinary Technologists & Technicians
- Plumbers, Pipefitters, & Steamfitters
- HVAC Mechanics
- Telecommunications Line Installers & Repairers
- Supervisors of Landscaping Workers

#### Top Award Gaps

- Farmers, Ranchers, & Agricultural Managers
- HVAC Mechanics
- Veterinarians
- Urban & Regional Planners
- Plumbers, Pipefitters, & Steamfitters

# Agriculture, Food, & Natural Resources

## Southwest



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

Heating, Air Conditioning, & Refrigeration Mechanics (OG, AG)  
Telecommunications Equipment Installers & Repairers (OG, AG)  
Chemists (OG)  
Biological Science Teachers, Postsecondary (OG)  
Life, Physical, & Social Science Technicians, All Other

### Gateway Occupations (all HD)

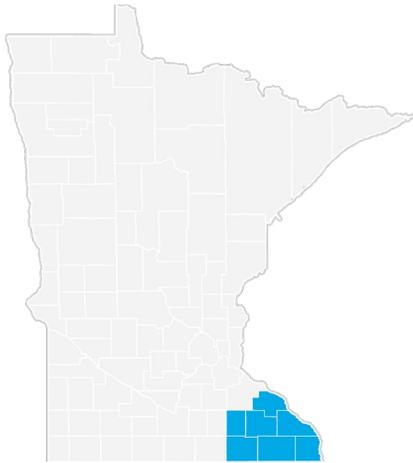
Farm Equipment Mechanics (OG, AG)  
Refuse & Recyclable Material Collectors  
Supervisors of Farming, Fishing, & Forestry Workers (AG)  
Chefs & Head Cooks (HD, OG, AG)  
Food & Tobacco Machine Operators

### Origin Occupations

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

# Agriculture, Food, & Natural Resources

## Southeast



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

Natural Sciences Managers  
Aircraft Mechanics & Service Technicians (AG)  
Life, Physical, & Social Science Technicians, All Other  
Biological Science Teachers, Postsecondary  
Conservation Scientists

### Gateway Occupations (all HD)

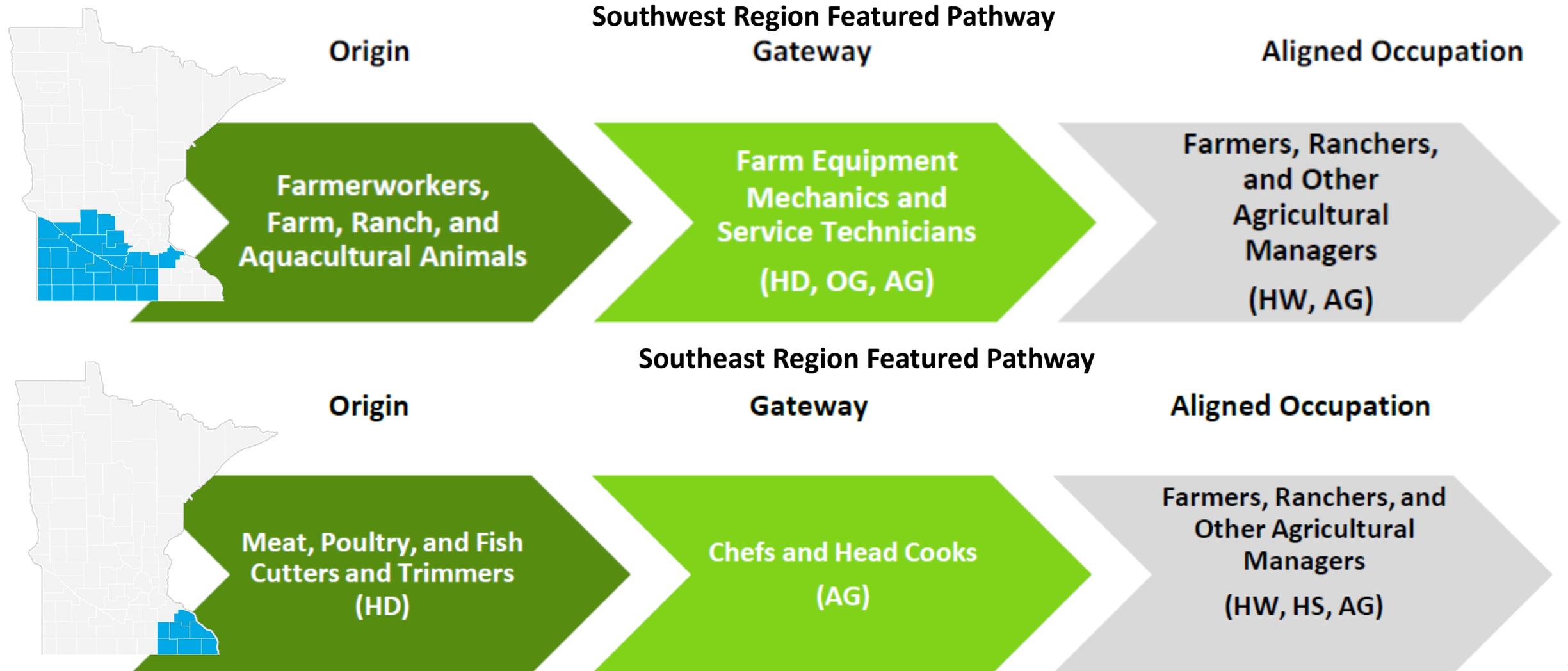
Food Batchmakers  
Heating, Air Conditioning, & Refrigeration Mechanics (HS, HOG, AG)  
Supervisors of Landscaping Workers (OG)  
Telecommunications Equipment Installers & Repairers (HS, OG, AG)  
Chefs & Head Cooks (AG)

### Origin Occupations

Landscaping & Groundskeeping Workers (HD)  
Meat, Poultry, & Fish Cutters & Trimmers (HD)  
Farmworkers, Farm, Ranch, & Aquacultural Animals  
Farmworkers & Laborers (HD)  
Animal Caretakers (HD)

# Agriculture, Food, & Natural Resources

Southwest  
Southeast



# 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)