



*The Lake Elmo Economic Development Authority (EDA) is committed to preserving and enhancing our community by creating an attractive business climate and listening to businesses and residents to prepare for the economy of tomorrow.*

## **NOTICE OF MEETING**

**City of Lake Elmo Economic Development Authority  
Meeting  
3880 Laverne Avenue North  
Tuesday, August 15, 6:00 PM**

### **AGENDA**

- |   |                  |
|---|------------------|
| <b>A. Call to Order</b>   | <b>6:00 p.m.</b> |
| <b>B. Minutes<br/>May 16, 2023 Minutes</b>                                | <b>6:00p.m.</b>  |
| <b>C. Washington County Labor Market Study</b>                            | <b>6:05p.m.</b>  |
| <b>D. Business Retention and Expansion<br/>Survey Updates</b>             | <b>6:35p.m.</b>  |
| <b>E. Future Agenda Items/Reports<br/>-Next Meeting November 21, 2023</b> | <b>6:45 p.m.</b> |
| <b>F. Adjourn</b>   | <b>6:50 p.m.</b> |

**CITY OF LAKE ELMO  
ECONOMIC DEVELOPMENT AUTHORITY MINUTES  
May 16, 2023**

**Call to Order/Roll Call**

Waldoch called the meeting to order at 6:00pm.

**PRESENT: Jeff Holtz, Charles Cadenhead, Ninna Waldoch, Paul Ryberg and Tony Manzara**

**ABSENT: None**

Staff Present: City Administrator Handt

**February 21, 2023 Minutes:**

Motion by Cadenhead, seconded by Manzara to approve. Motion carried.

**Business Retention and Expansion (BRE) Survey Updates**

Handt provided an update on the one visit completed since the last meeting. There was discussion about the crossing at CSAH 14 and a brochure. More updates at next meeting.

**Business District Signage Update**

Handt provided an update the county will not allow business directional signage on county roads, a link to MNDOT business, and a copy of the city's sign ordinance. Commission discussed other options to pursue to drive folks to the businesses downtown.

**Future Agenda/Reports**

The next agenda will include updates/feedback on the BRE. If there are no other items the August 15<sup>th</sup> meeting maybe cancelled. At the November meeting the EDA will also discuss a Request for Proposals for the sale of fire station 1 and review and update as necessary the EDA work plan.

**Closed Session**

Motion by Holtz, seconded by Cadenhead for the EDA to go into closed session pursuant to Minnesota Statutes Section 13D.05, subdivision 3 (c)(3) – to consider offers for the sale of the former 3M property on Ideal Avenue, PIDs 16.029.21.24.0002 and 16.029.21.23.0003. Motion carried.

**Adjourn**

Meeting adjourned at 6:45 P.M.

Respectfully Submitted,  
Kristina Handt



## STAFF REPORT

DATE: August 15, 2023

**REGULAR**

**AGENDA ITEM:** Washington County Labor Study Presentation

**SUBMITTED BY:** Kristina Handt, City Administrator

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### **BACKGROUND:**

When the EDA work plan was adopted, goal 2 related to obtaining more data. The specific goal and actions steps were:

### **2. Develop data (including talent availability, business types, demographic data)**

**Action Step:** City staff with assistance from Washington County CDA staff and DEED will provide community demographic information (including but not limited to: talent availability, business types, community profile, demographic data).

**Action Step:** Washington County CDA will hire a consultant in 2023 to undertake a labor market study throughout the county. Lake Elmo will be included in the middle region plan. Once completed, results will be reported back to the EDA Board.

**Action Step:** City staff with assistance from the Washington County CDA will explore options to obtain resident input through a survey and then report back to the EDA Board.

**Deliverables:** The labor market study and demographic/data study update will begin in 2023 or sooner contingent on available funding.

Earlier this year, Washington County's study was completed. Copies of the studies related to labor supply and labor demand are included in your packet.

### **PROPOSAL DETAILS/ANALYSIS:**

Erin Olson, the Senior Director of Strategic Research from Real Time Talent (the consultant who completed the study for Washington County) and Chris Eng, Washington County Economic Development Director, will be at the meeting to present their findings. I have asked them to focus in on the results from the middle part of the county, as they would be most applicable to Lake Elmo

### **ATTACHMENT:**

- Washington County Labor Demand Study
- Washington County Labor Supply Study



# Washington County Labor Demand Study

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**Washington County CDA**

Developed by RealTime Talent

March 7, 2023





# Demand Study Contents

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## 01. Introduction (p. 3)

Centering equity and community well-being as we address workforce needs for economic development

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## 02. Labor Market Overview (p. 4)

The pandemic's impacts and current labor market landscape

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## 03. Industry Analysis (p. 24)

Deep-dive of critical workforce needs in the Healthcare, Manufacturing, and Construction industries

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## 04. Pathway Priorities (p. 48)

Origin, Gateway, and Target Occupations of critical need to support regional economic growth

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## 05. Summary (p. 72)

What is needed, and where we are headed



# 01. Introduction

## The talent shortage is here, and likely to become more severe

Significant talent shortages have been on the horizon for years, and the effects of the COVID-19 Pandemic accelerated many of the workforce transitions and talent misalignments seen on our horizon in 2018. In 2022, demographic trends and the complex economic environment nationwide collided to create the tightest job market in history, and the impacts of that tightness are still being felt. We still see a “great reshuffle” playing out as talent seeks higher wage opportunities more closely aligned to areas of interest and skill, and early retirements, lack of access to childcare and other dependent care, illness, entrepreneurship and new business starts are cited as the top influencing factors limiting our available talent pool.<sup>1</sup> Minnesota has one of the most severe talent shortages in the nation, with about 50 available workers for every 100 open jobs—not even taking into account skill misalignments.<sup>2</sup> In short, we don’t have workers to spare.

## The needs of industry are changing

Just as the COVID-19 Pandemic accelerated talent shortages and misalignments, it also served as a catalyst for shifting business models and talent needs. One outcome was the rapid proliferation of remote and hybrid work environments, which has changed expectations of talent and business, and led to shifts in commute patterns that have remained with our communities even after stabilization. This report focuses on the unique needs of Washington County’s Healthcare, Manufacturing, and Construction industries, which are essential to the prospering of the local economy.



## 02. Labor Market Overview

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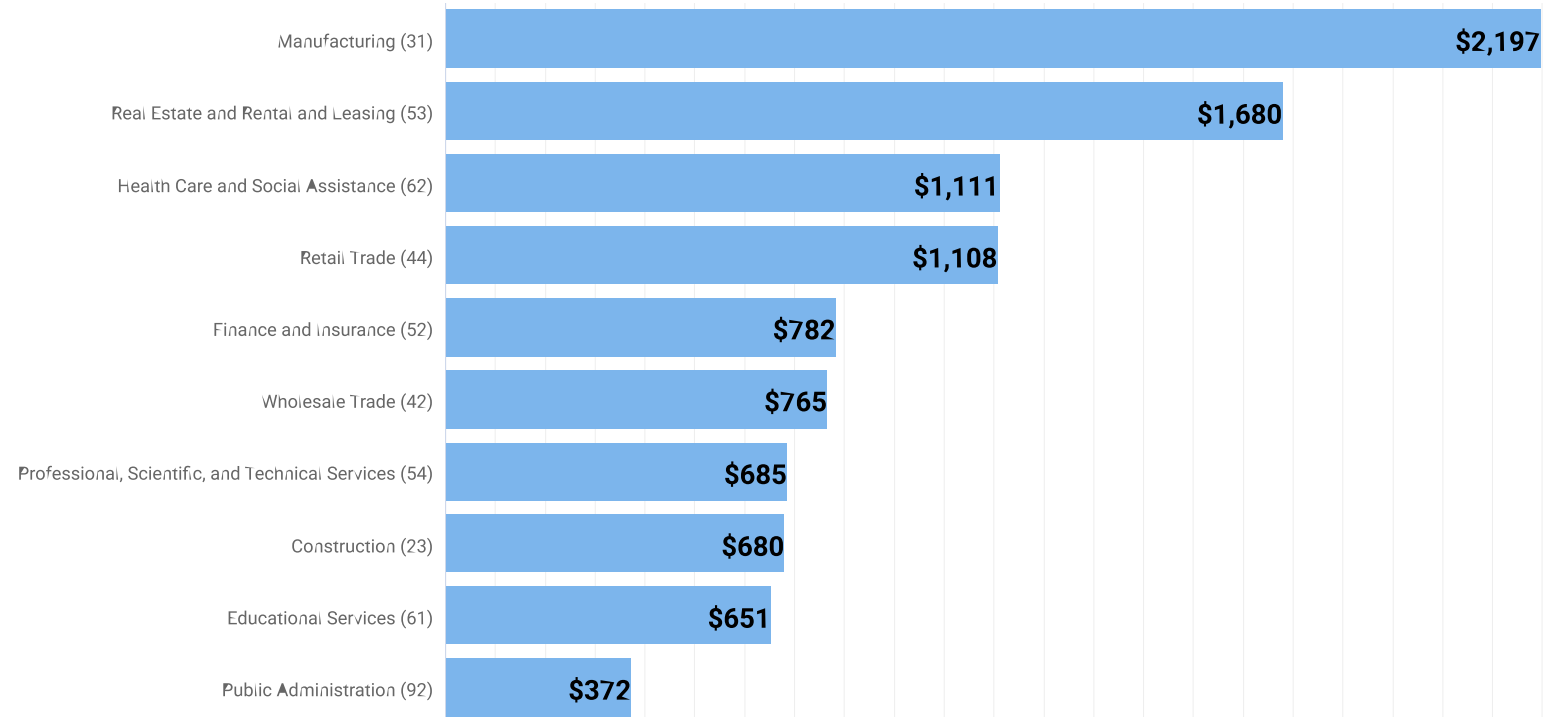
# State of the County's Economy

Washington County fared relatively well economically during the COVID-19 pandemic, seeing a contraction of GDP of only -1.3% in 2020.

In 2021, nominal GDP in Washington County expanded 12.2% to a total GDP of nearly twelve billion, one hundred and twenty million dollars (\$12,119,877,000).

Of the industry sectors in Washington County, Manufacturing contributed the largest portion of GDP in 2021, followed by Real Estate, Health Care and Social Assistance, and Retail Trade.

GDP (in \$ Millions)  
Washington County, Minnesota, 2021



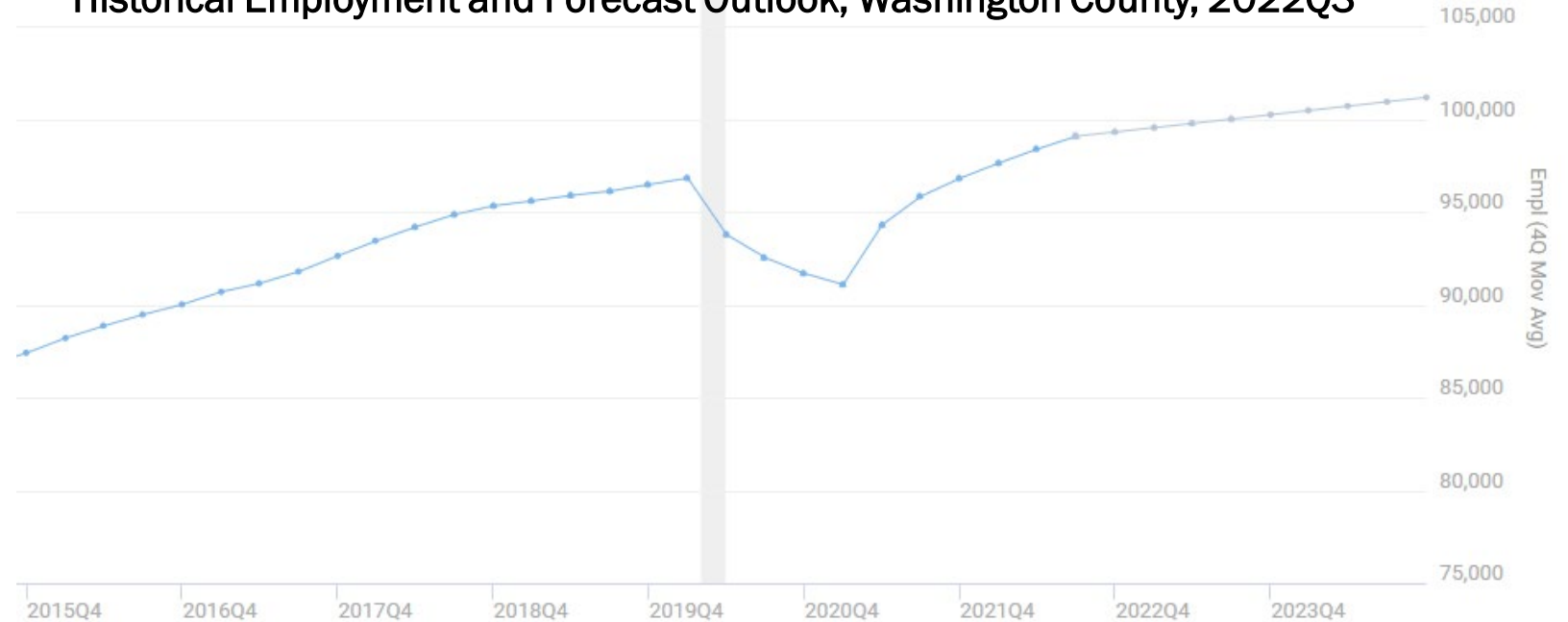
# Employment Trends

Washington County employment has followed the trends observed at the MSP Metro and statewide levels, with employment increasing 2.8% between 2021Q3 and 2022Q3.

A total of 99,098 workers are employed in Washington County, representing 5% of the total MSP Metro workforce.

The employment outlook for the county is strong, with an estimated average annual growth of 0.9% over the next five years.

Historical Employment and Forecast Outlook, Washington County, 2022Q3



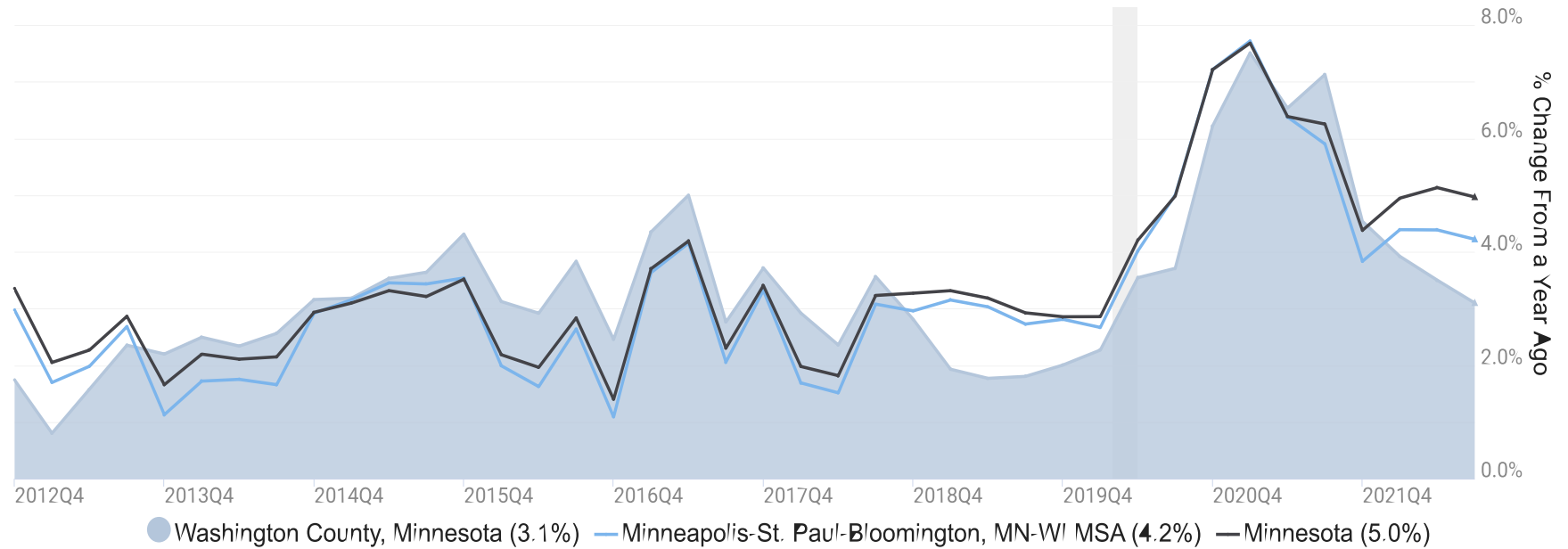
**Total Employment: 99,098**  
**Unemployment Rate: 1.9% (2,728 people)**  
**Historical 5-Year Average Annual Growth: 1.5%**  
**Forecast 5-Year Average Annual Growth: 0.9%**

# Wage Trends

The average worker earned annual wages of \$54,920 as of 2022Q3. Average annual wages increased 3.1% over the preceding four quarters.

Washington County's average annual wages and growth both lag the MSP Metro (\$72,457) and nation (\$68,132). The county also has a slightly higher local cost of living than the average community.

Average Annual Wages of Talent Employed in Washington County, 2022Q3



Source: JobsEQ®. Data as of 2022Q3. The shaded areas of the graph represent national recessions.

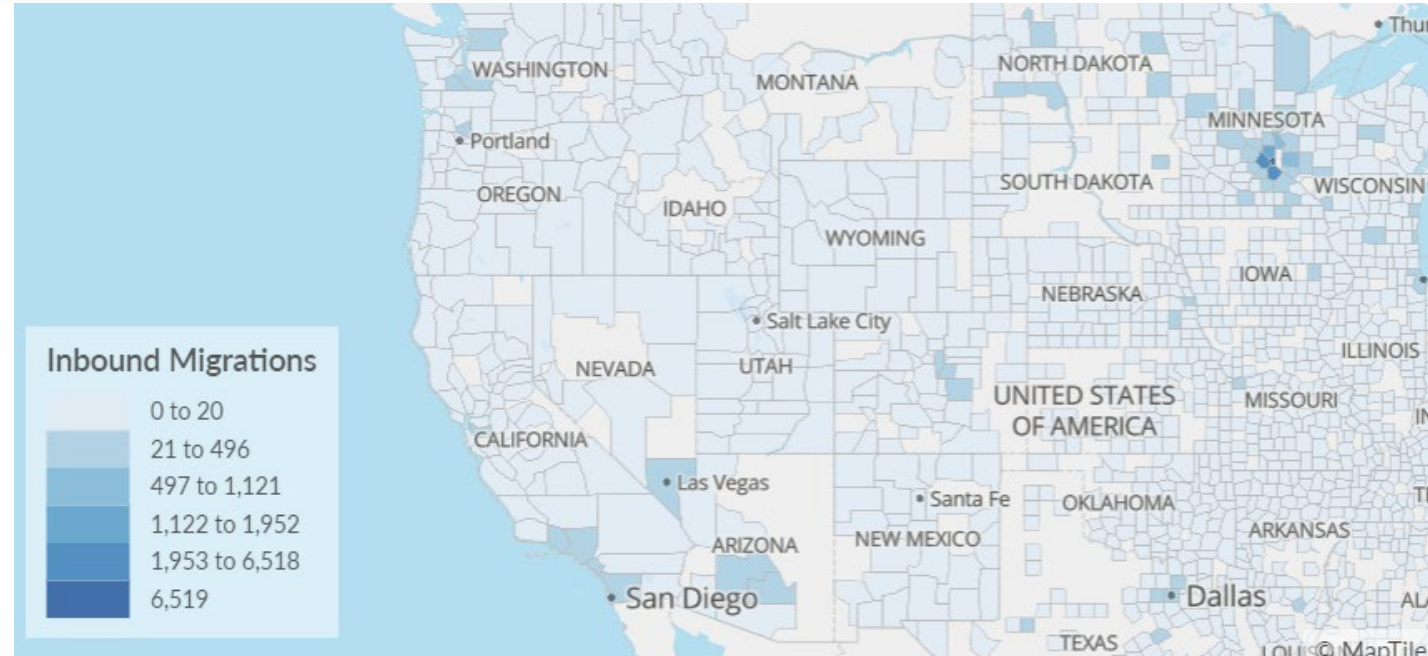
## Cost of Living Information

	Annual Average Salary	Cost of Living Index (Base US)	US Purchasing Power
Washington County, Minnesota	\$54,920	101.4	\$54,166
Minneapolis-St. Paul-Bloomington, MN-WI MSA	\$72,457	99.4	\$72,875
Minnesota	\$67,747	97.6	\$69,405
USA	\$68,132	100.0	\$68,132

# Talent Migration

Top Counties by Resident Migration	Inbound Migrations	Outbound Migrations	Net Migrations
Ramsey County, MN	6,519	3,207	3,312
Hennepin County, MN	2,022	1,318	704
Dakota County, MN	1,953	1,520	433
Anoka County, MN	1,122	991	131
Chisago County, MN	536	737	-200
St. Croix County, WI	497	999	-501
Scott County, MN	130	118	12
Pierce County, WI	121	201	-80
St. Louis County, MN	108	83	26
Cook County, IL	98	48	50
Isanti County, MN	84	142	-58
Maricopa County, AZ	79	193	-114
<b>Total Migrations</b>	<b>17,219</b>	<b>14,296</b>	<b>2,923</b>

Regional Migration Patterns, 2020



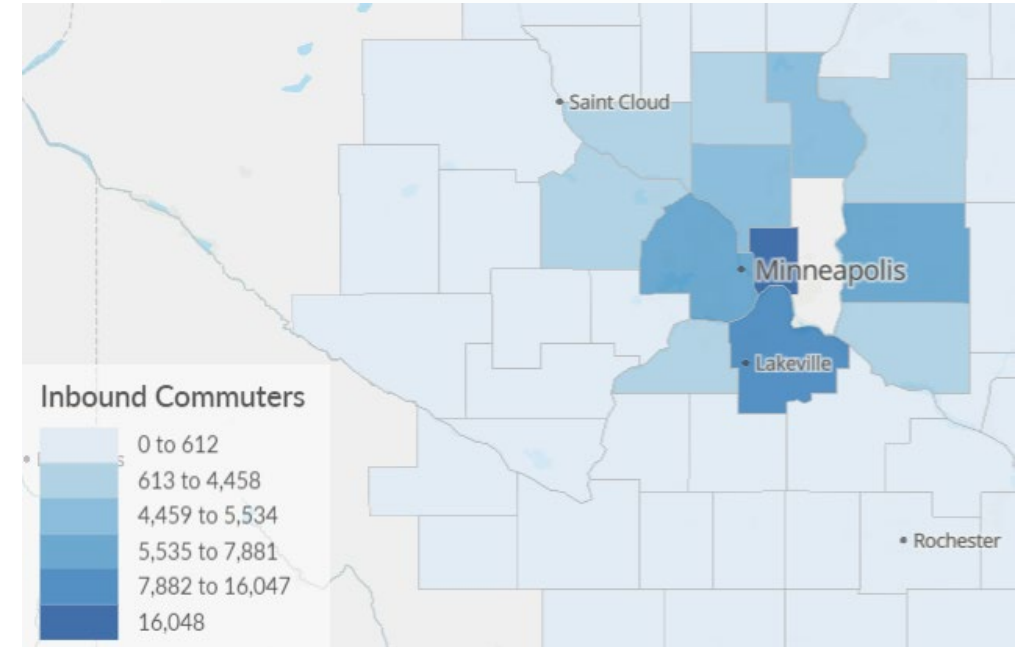
This dataset shows the amount of domestic taxpayer migration among all states, MSAs, and counties in the United States. The source and design of this taxpayer-based dataset excludes certain groups of people and thus does not represent the entire population, but rather is a good indicator of migrating workers within the labor force.



# Talent Commute

Top Counties by Resident Migration	Inbound Commuters	Outbound Commuters	Net Commuters
Ramsey County, MN	16,048	40,941	-24,893
Dakota County, MN	7,882	12,414	-4,532
Hennepin County, MN	6,387	36,361	-29,974
St. Croix County, WI	5,535	2,040	3,494
Anoka County, MN	4,858	5,977	-1,119
Chisago County, MN	4,459	1,552	2,907
Polk County, WI	1,443	382	1,061
Pierce County, WI	1,143	466	677
Wright County, MN	703	309	394
Sherburne County, MN	662	286	376
Isanti County, MN	640	176	463
Scott County, MN	613	889	-276
Goodhue County, MN	437	397	40
	<b>55,316</b>	<b>106,058</b>	<b>-50,742</b>

Regional Commute Patterns, 2022



This dataset shows the number of inbound, outbound, and net commuters for Washington County. Approximately 55,316 workers commute into Washington County from surrounding counties, while approximately 106,058 residents of Washington County commute out from the county to others.



# Regional Trends

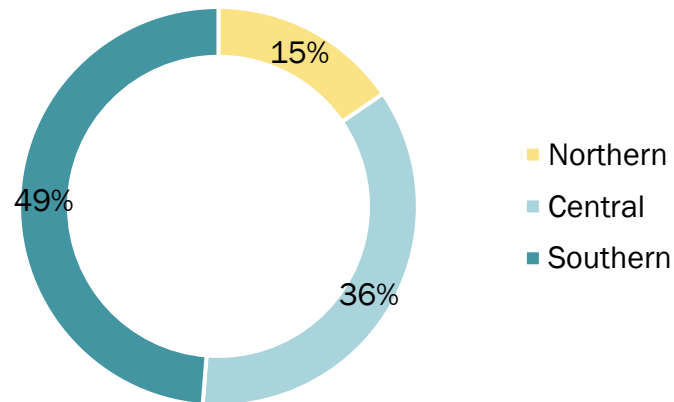
Washington County is home to an estimated 277,283 residents of all ages, with the largest share of population residing in the Southern portion of the county (49).

The Southern and Central regions have the highest overall labor force participation rates.

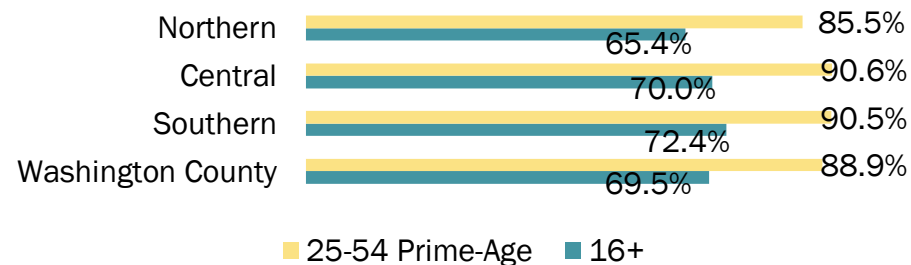
Average annual salary is highest in the Central region of the county (\$57,259).

Average Annual Salary by Region	
Northern Washington County	\$50,478
Central Washington County	\$57,259
Southern Washington County	\$52,950
Washington County, MN	\$54,920

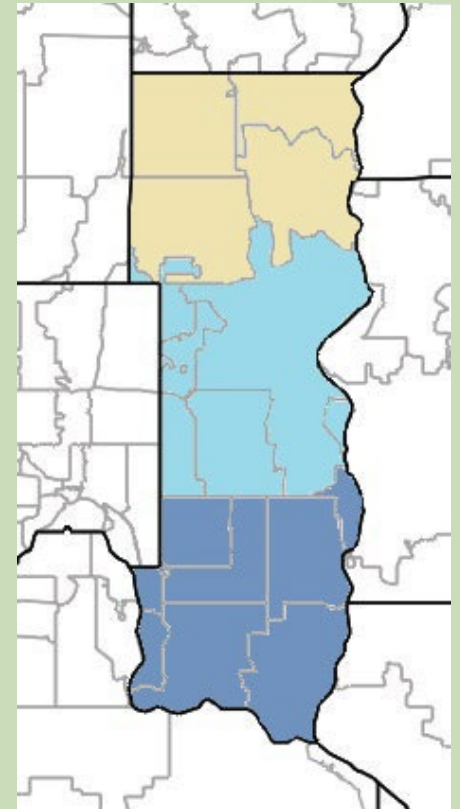
Share of Population by Washington County Region



Civilian Labor Force Participation Rate by Region



Map of Washington County



# Industry and Career Pathway Selection

## Approach for Selection of Industries and Pathways of Focus

- 1) Strong demand indicators in at least two of the following five areas (high historical employment, high job posting volumes, low unemployment rate, high forecast growth, high total demand, labeled by HD)
- 2) Higher than average local concentration of roles (LQ-Location Quotient above 1.0)
- 3) Significant impact on local or regional economy by GDP contribution, high average wage offerings, or high employment of county residents (HW)

## Prioritized Industries of Focus

- 1) **Healthcare\***—Offices of Physicians, Mental Health, Older Adult Services
- 2) **Manufacturing**—Wood, Paper, Chemical, Pharmaceutical, Printed Circuit and Industrial Control Manufacturing
- 3) **Construction**—Nonresidential Drywall Contractors, Nonresidential Structural Steel Contractors, Power Line Construction

## Prioritized Career Fields and Pathways of Focus

- 1) **Health Science**—Therapeutic Services
- 2) **Manufacturing**—STEM, Production, Maintenance and Machining
- 3) **Architecture and Construction**—Carpentry, Insulation, Drywall Installation

# A Profile of Local Industry

Washington County, Minnesota, 2022Q3<sup>1</sup>

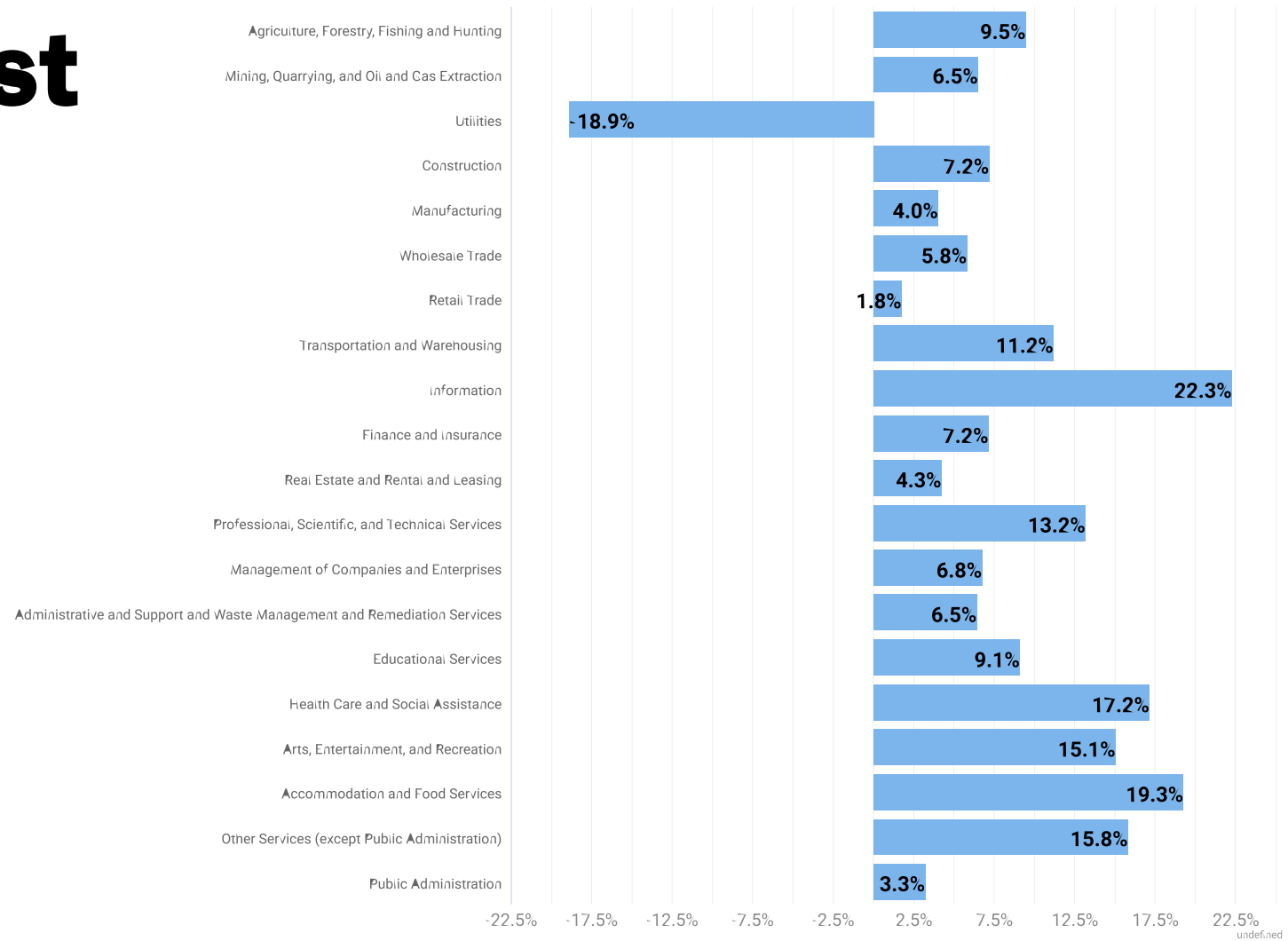
NAICS	Industry	Current			5-Year History		5-Year Forecast				
		Empl	Avg Ann Wages	LQ	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
44	Retail Trade	15,232	\$32,426	1.52	1,141	1.6%	10,943	4,654	6,155	134	0.2%
62	Health Care and Social Assistance	14,614	\$57,666	1.03	2,264	3.4%	8,999	3,589	4,206	1,204	1.6%
31	Manufacturing	11,108	\$75,300	1.39	1,467	2.9%	6,318	2,257	3,839	222	0.4%
72	Accommodation and Food Services	9,544	\$23,444	1.14	-79	-0.2%	9,557	3,925	4,753	879	1.8%
61	Educational Services	7,469	\$52,834	0.95	-60	-0.2%	4,088	1,783	1,971	334	0.9%
23	Construction	5,747	\$68,943	0.98	1,131	4.5%	3,058	1,024	1,830	203	0.7%
81	Other Services (except Public Administration)	5,316	\$31,268	1.25	1	0.0%	3,729	1,397	1,927	405	1.5%
54	Professional, Scientific, and Technical Services	4,951	\$77,655	0.68	567	2.5%	2,601	841	1,444	316	1.2%
48	Transportation and Warehousing	3,681	\$48,582	0.75	610	3.7%	2,462	919	1,343	200	1.1%
92	Public Administration	3,618	\$68,277	0.79	-104	-0.6%	1,869	748	1,063	58	0.3%
52	Finance and Insurance	3,446	\$96,437	0.86	131	0.8%	1,764	622	1,021	121	0.7%
56	Administrative and Support and Waste Management and Remediation Services	3,399	\$48,464	0.53	-82	-0.5%	2,197	848	1,241	108	0.6%
42	Wholesale Trade	3,094	\$94,353	0.83	393	2.8%	1,829	643	1,097	89	0.6%
71	Arts, Entertainment, and Recreation	2,628	\$22,800	1.39	6	0.0%	2,204	844	1,168	191	1.4%
55	Management of Companies and Enterprises	1,624	\$119,371	1.08	-16	-0.2%	831	288	490	54	0.7%
53	Real Estate and Rental and Leasing	1,367	\$54,265	0.78	152	2.4%	743	320	394	29	0.4%
11	Agriculture, Forestry, Fishing and Hunting	1,108	\$45,217	0.84	84	1.6%	772	317	403	51	0.9%
51	Information	851	\$59,886	0.42	-258	-5.2%	525	154	281	90	2.0%
22	Utilities	245	\$141,309	0.49	-59	-4.2%	88	41	72	-24	-2.1%
	<b>Total - All Industries</b>	<b>99,098</b>	<b>\$54,920</b>	<b>1.00</b>	<b>7,295</b>	<b>1.5%</b>	<b>63,051</b>	<b>24,377</b>	<b>33,963</b>	<b>4,711</b>	<b>0.9%</b>

# Industry Forecast

The 2-digit Industry with the highest forecast growth rate over the next ten years in Washington County is the **Information Industry** (22.3%), followed by **Accommodation and Food Services** (19.3%) which is in recovery following the impacts of the COVID-19 pandemic.

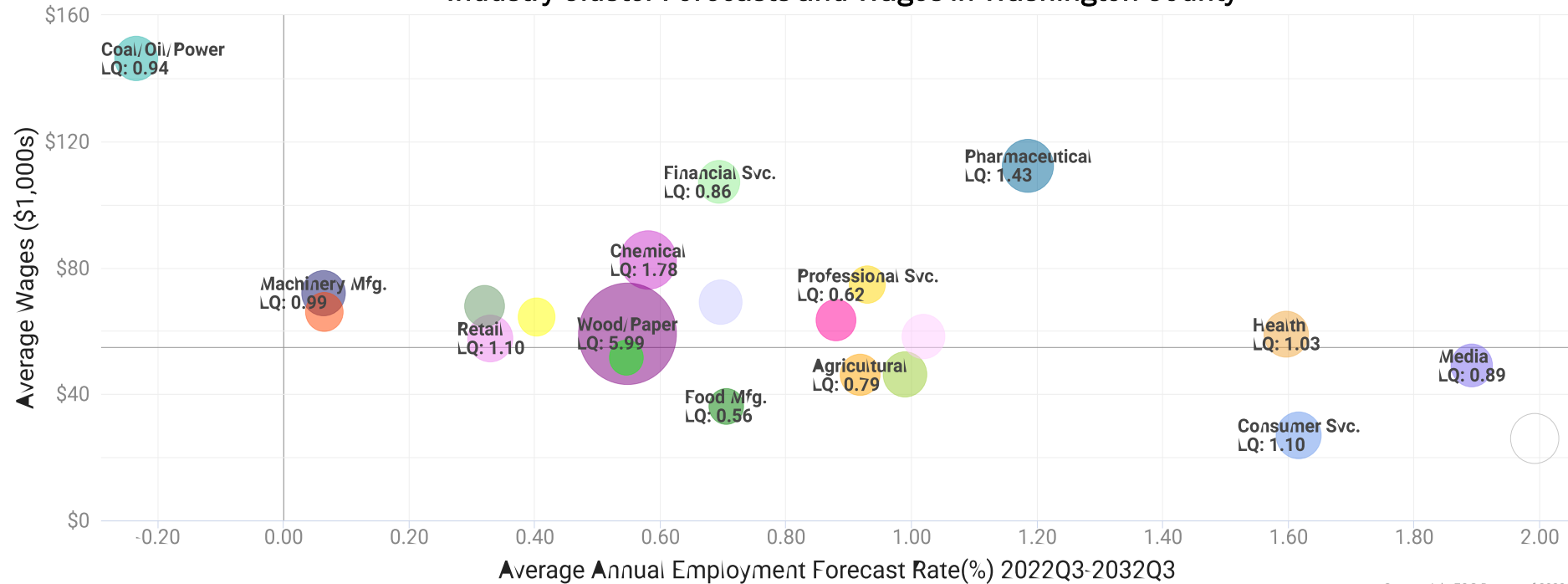
The **Utilities Industry** is the only broad industry cluster forecast to decline in overall employment over the next five years, but at only 245 people employed in the County in this industry as of 2022Q3, numbers of decline in local jobs are minimal (around 24 jobs lost per year). Replacement demand remains high across most industries in the region.

10 Year Forecast Growth Rate



# Industry Cluster Trends

Industry Cluster Forecasts and Wages in Washington County



The industry cluster in Washington County with the highest relative concentration is **Wood/Paper Manufacturing** with a location quotient of 5.99. This cluster employs 4,723 workers in the region with an average wage of \$59,222. Employment in this industry is projected to expand by about 0.5% per year over the next ten years. Only the **Coal/Oil/Power** industry cluster is forecast to decline in employment.

# Local Industry at a Glance

## Top Industries by 5-Year Average Annual Historical Employment Growth

- 1) Construction (+4.5%)
- 2) Transportation and Warehousing (3.7%)
- 3) Health Care and Social Assistance (+3.4%)
- 4) Manufacturing (+2.9%)
- 5) Wholesale Trade (+2.8%)

## Top Industries by Employment Volume

- 1) Retail Trade (15,232)
- 2) Health Care and Social Assistance (14,614)
- 3) Manufacturing (11,108)
- 4) Accommodation and Food Services (9,544)
- 5) Educational Services (7,469)

## Top Industries by 5-Year Average Annual Forecasted Employment Growth

- 1) Information (+2.0%)
- 2) Accommodation and Food Services (+1.8%)
- 3) Health Care and Social Assistance (+1.6%)
- 4) Other Services (+1.5%)
- 5) Arts, Entertainment, and Recreation (+1.4%)

## Top Industries by Location Quotient (LQ)

- 1) Retail Trade (1.52)
- 2) Manufacturing (1.39)
- 3) Arts, Entertainment, and Recreation (1.39)
- 4) Other Services (1.25)
- 5) Accommodation and Food Services (1.14)

## Top Industries by Average Wage

- 1) Utilities (\$141,309)
- 2) Management of Companies and Enterprises (\$119,371)
- 3) Finance and Insurance (\$96,437)
- 4) Wholesale Trade (\$94,353)
- 5) Professional, Scientific, and Technical Services (\$77,655)

## Prioritized Industries of Focus

- 1) Healthcare\*
- 2) Manufacturing
- 3) Construction

# A Profile of Occupational Employment

Washington County, Minnesota, 2022Q3 <sup>1</sup>														
SOC	Occupation	Empl	Mean Ann Wages <sup>2</sup>	Current			5-Year History			5-Year Forecast				
				LQ	Unempl	Unempl Rate	Online Job Ads <sup>3</sup>	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
41-0000	Sales and Related Occupations	11,633	\$46,000	1.25	349	2.4%	748	420	0.7%	8,379	3,690	4,584	105	0.2%
43-0000	Office and Administrative Support Occupations	10,591	\$47,200	0.87	304	1.7%	326	-327	-0.6%	6,433	2,909	3,541	-16	0.0%
35-0000	Food Preparation and Serving Related Occupations	10,041	\$33,200	1.28	393	3.6%	649	-101	-0.2%	10,865	4,566	5,453	846	1.6%
53-0000	Transportation and Material Moving Occupations	8,499	\$45,200	0.98	287	2.9%	394	1,296	3.4%	6,684	2,437	3,770	476	1.1%
51-0000	Production Occupations	6,938	\$46,900	1.24	167	2.4%	216	627	1.9%	3,999	1,471	2,496	32	0.1%
25-0000	Educational Instruction and Library Occupations	5,822	\$56,200	1.10	115	1.3%	230	-33	-0.1%	3,156	1,402	1,453	300	1.0%
11-0000	Management Occupations	5,805	\$117,000	0.86	115	1.1%	380	646	2.4%	2,911	863	1,709	339	1.1%
29-0000	Healthcare Practitioners and Technical Occupations	5,519	\$102,600	0.96	53	0.6%	660	958	3.9%	2,100	874	842	383	1.4%
13-0000	Business and Financial Operations Occupations	4,919	\$83,700	0.77	123	1.1%	241	800	3.6%	2,528	772	1,501	255	1.0%
47-0000	Construction and Extraction Occupations	4,580	\$65,200	1.02	124	2.8%	47	583	2.8%	2,454	810	1,465	179	0.8%
31-0000	Healthcare Support Occupations	4,422	\$36,700	1.02	143	2.1%	316	1,166	6.3%	3,870	1,556	1,807	507	2.2%
39-0000	Personal Care and Service Occupations	3,491	\$36,600	1.45	148	3.6%	159	3	0.0%	3,590	1,341	1,913	336	1.9%
49-0000	Installation, Maintenance, and Repair Occupations	3,260	\$58,600	0.85	54	1.3%	213	273	1.8%	1,786	621	1,019	146	0.9%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	3,219	\$39,800	0.98	97	2.7%	158	226	1.5%	2,403	1,017	1,232	154	0.9%
15-0000	Computer and Mathematical Occupations	2,340	\$96,300	0.69	44	0.8%	151	498	4.9%	1,026	267	597	162	1.3%
21-0000	Community and Social Service Occupations	1,836	\$56,000	1.05	37	0.9%	158	43	0.5%	1,102	398	558	145	1.5%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	1,656	\$64,100	0.95	78	2.5%	94	54	0.7%	1,056	394	541	121	1.4%
33-0000	Protective Service Occupations	1,357	\$60,800	0.64	33	1.5%	74	-71	-1.0%	804	355	421	29	0.4%
17-0000	Architecture and Engineering Occupations	1,227	\$88,700	0.76	25	0.9%	95	74	1.2%	526	179	294	53	0.8%
19-0000	Life, Physical, and Social Science Occupations	684	\$81,800	0.79	18	1.2%	68	60	1.9%	355	80	238	36	1.0%
23-0000	Legal Occupations	680	\$111,400	0.80	10	0.8%	11	34	1.0%	282	110	126	46	1.3%
45-0000	Farming, Fishing, and Forestry Occupations	580	\$42,400	0.91	10	2.7%	5	64	2.4%	506	155	325	26	0.9%
00-0000	<b>Total - All Occupations</b>	<b>99,098</b>	<b>\$58,000</b>	<b>1.00</b>	<b>2,728</b>	<b>1.9%</b>	<b>5,393</b>	<b>7,295</b>	<b>1.5%</b>	<b>66,865</b>	<b>26,268</b>	<b>35,886</b>	<b>4,711</b>	<b>0.9%</b>

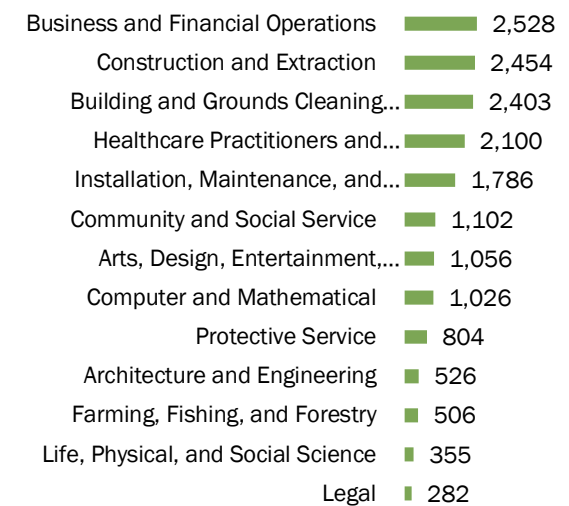
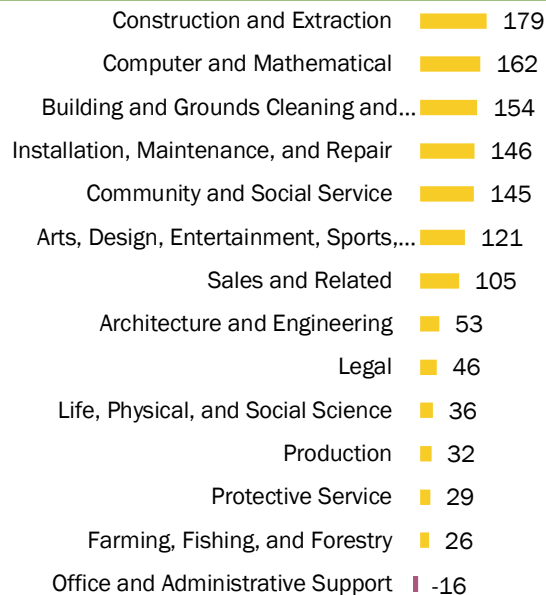
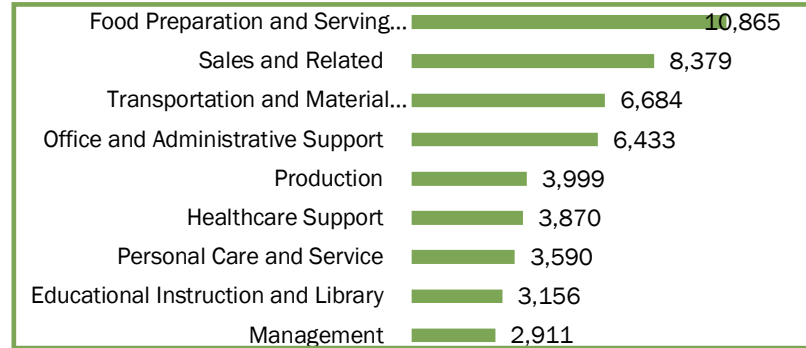
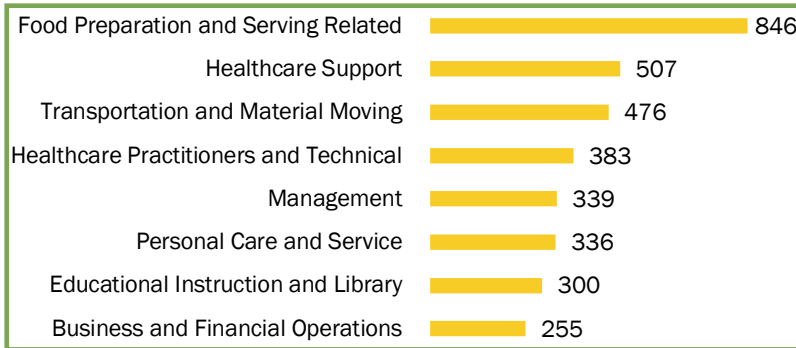
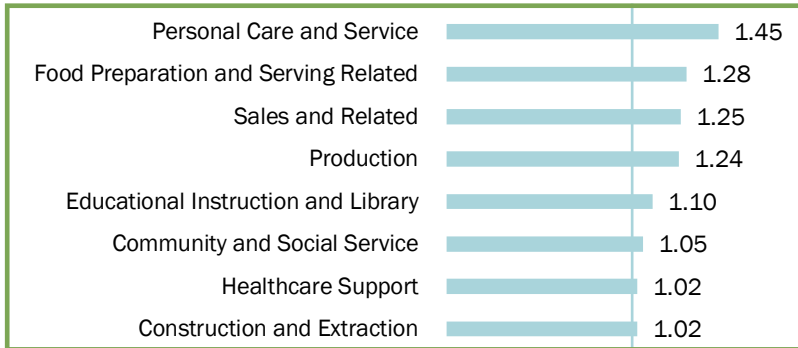


# Employment Outlook by 2-Digit Occupation

## Location Quotient

## 5-Year Employment Change Forecast

## 5-Year Total Employment Demand Forecast





# Employment Trends by Career Field

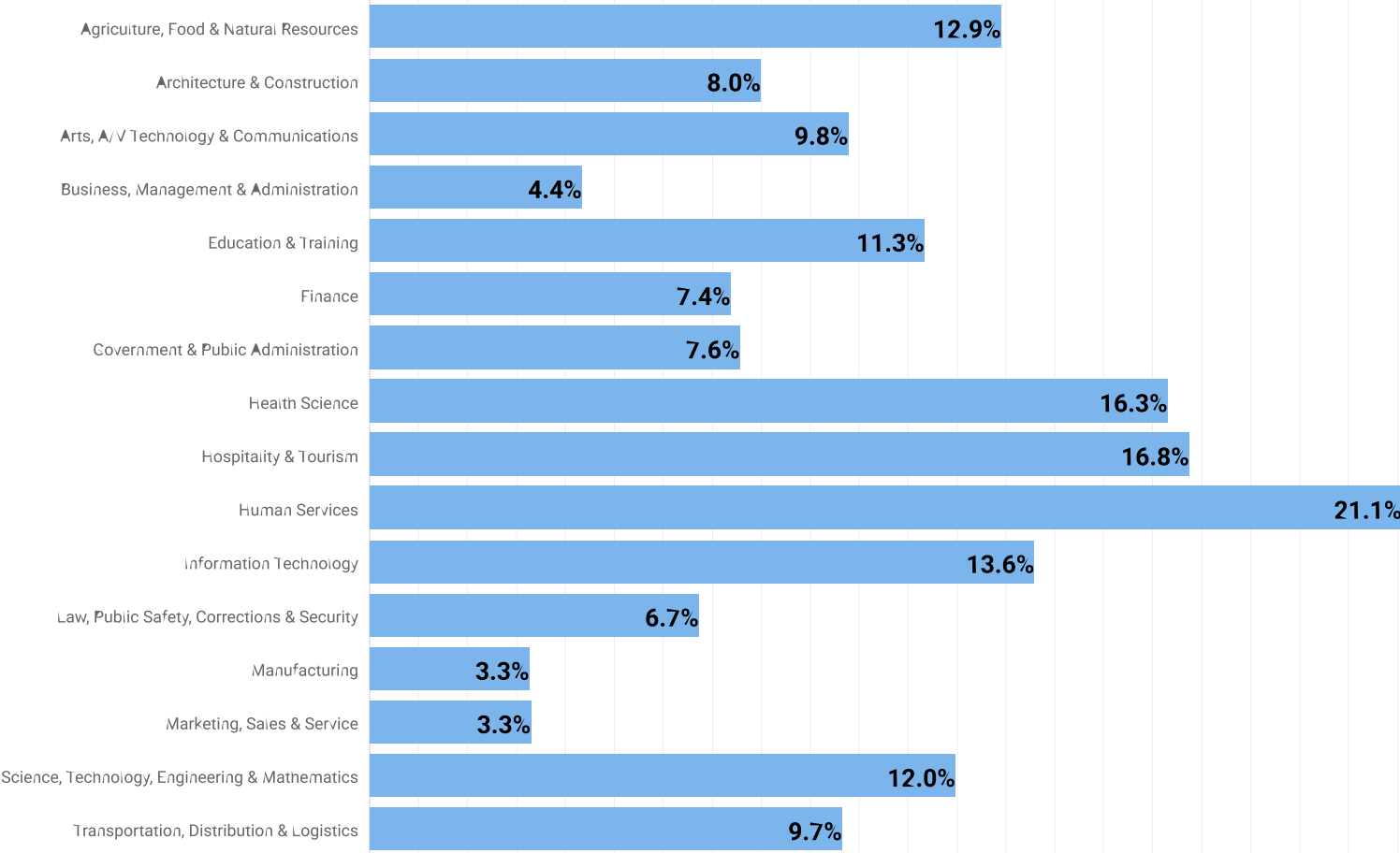
## Health Science (CTE Cluster) in Washington County, Minnesota, 2022Q3<sup>1</sup>

Career Field	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 % Change	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
Business, Management, & Administration	45,104	\$53,300	1.03	1,447	2.2%	2,515	1,716	0.8%	34,252	14,068	18,476	1,708	0.7%
Engineering, Manufacturing, & Technology	24,077	\$56,700	0.99	619	2.2%	820	2,768	2.5%	14,371	5,061	8,503	806	0.7%
Human Services	15,996	\$54,800	1.04	386	1.5%	822	921	1.2%	10,437	4,337	4,993	1,107	1.3%
Health Science	8,731	\$82,500	0.98	133	1.0%	1,054	1,320	3.3%	4,641	1,800	2,156	685	1.5%
Arts, Communications, & Information Systems	3,571	\$83,800	0.75	111	1.4%	172	436	2.6%	1,756	549	999	207	1.1%
Agriculture, Food & Natural Resources	1,620	\$55,000	0.84	32	2.0%	65	134	1.7%	1,313	452	759	101	1.2%
<b>Total - All Occupations</b>	<b>99,098</b>	<b>\$58,000</b>	<b>1.00</b>	<b>2,728</b>	<b>1.9%</b>	<b>5,447</b>	<b>7,295</b>	<b>1.5%</b>	<b>66,865</b>	<b>26,268</b>	<b>35,886</b>	<b>4,711</b>	<b>0.9%</b>

Occupations can be grouped into six distinct Career Fields (above), which are useful in planning career and technical education pathways. These six fields have sixteen corresponding career clusters (on the following page), which further detail unique roles that are related by skillset and content knowledge domains. Within the clusters are career pathways which represent the most detailed look at how skillsets relate and how individuals may move along a trajectory of learning and career growth from Origin to Gateway to Target occupations.

# Career Cluster Forecast

10 Year Forecast Growth Rate  
Total Employment, Latest Available Data



Analysis of the sixteen Career and Technical Education Career Clusters provides an entryway into understanding the most critical career pathways for a community.

All sixteen career clusters are forecasting growth in Washington County over the next ten years, with **Human Services, Hospitality and Tourism, and Health Science** careers likely to see the greatest overall positive change in employment volume.

# Career Cluster Wages and Demand

Career Cluster	Employment	Avg Ann Wages	Job Ads	Ann Empl Growth	Ann Total Demand
Science, Technology, Engineering & Mathematics	999	\$104,400	107	11	83
Information Technology	2,237	\$96,200	134	29	192
Finance	2,929	\$86,800	202	21	279
Health Science	8,731	\$82,500	1,054	133	912
Law, Public Safety, Corrections & Security	2,276	\$75,900	92	15	238
Government & Public Administration	665	\$73,200	37	5	71
Business, Management & Administration	15,808	\$66,000	616	67	1,934
Architecture & Construction	6,818	\$64,400	107	53	749
Arts, A/V Technology & Communications	1,334	\$63,100	38	13	156
Education & Training	6,526	\$58,000	303	71	707
Agriculture, Food & Natural Resources	1,620	\$55,000	65	20	259
Manufacturing	8,855	\$50,600	343	29	1,006
Transportation, Distribution & Logistics	7,405	\$50,400	264	69	1,018
Marketing, Sales & Service	12,925	\$49,500	824	42	1,830
Human Services	6,529	\$42,300	390	126	1,038
Hospitality & Tourism	13,442	\$34,700	873	210	2,753
Total - All Occupations	99,098	\$58,000	5,447	925	13,239

As is the case statewide, careers in **Science, Technology, Engineering, and Mathematics** offer the highest average annual wages in Washington County of all sixteen career clusters.

**Hospitality and Tourism** has the highest annual estimated total demand, which includes growth and replacement demands due to job changes, retirements, and other career exits.

# Detailed Occupation Forecast

Occupations of Highest Forecast Growth	Employment	Avg Ann Wages	Job Ads	Hist 10yr Change	Proj 10yr Growth
General and Operations Managers	1,989	\$110,900	27	805	219
Software Developers	875	\$110,500	28	831	187
Registered Nurses	1,439	\$85,300	209	390	165
Nurse Practitioners	171	\$124,200	17	92	107
Market Research Analysts and Marketing Specialists	465	\$81,900	13	199	103
Heavy and Tractor-Trailer Truck Drivers	1,179	\$59,500	70	232	101
Construction Laborers	885	\$53,400	13	297	98
Maintenance and Repair Workers, General	871	\$51,200	102	168	90
Medical and Health Services Managers	248	\$111,500	88	91	89

Occupations of Most Significant Forecast Decline	Employment	Avg Ann Wages	Job Ads	Hist 10yr Change	Proj 10yr Decline
Executive Secretaries and Executive Administrative Assistants	237	\$67,600	2	-319	-39
Correctional Officers and Jailers	336	\$59,800	4	5	-24
Legal Secretaries and Administrative Assistants	81	\$61,000	0	-19	-13
First-Line Supervisors of Non-Retail Sales Workers	225	\$93,800	0	-40	-13
Payroll and Timekeeping Clerks	77	\$54,700	3	-12	-9
Computer Numerically Controlled Tool Operators	143	\$53,900	8	46	-8
Power Plant Operators	32	\$93,700	0	2	-7
Chief Executives	180	\$222,600	5	-97	-7

There are over 800 defined occupations at the detailed level (6-digit SOC). Among those occupations that support a living wage, **General and Operations Managers** and **Software Developers** are expected to add the most jobs over the next ten years in Washington County.

Among occupations supporting a living wage locally, **Executive Secretaries and Executive Administrative Assistants** and **Correctional Officers and Jailers** are projected to have the largest decline in employment over the next ten years, due in part to the extensive regional talent shortage as well as the shifting needs of business that now offer alternatives to secretarial supports.

# Local Occupational Employment at a Glance

## Top Occupations by 5-Year Average Annual Historical Employment Growth

- 1) Healthcare Support (+6.3%)
- 2) Computer and Mathematical (+4.9%)
- 3) Healthcare Practitioners and Technical (+3.9%)
- 4) Business and Financial Operations (+3.6%)
- 5) Transportation and Material Moving (+3.4%)

## Top Occupations by Employment Volume

- 1) Sales and Related (11,633)
- 2) Office and Administrative Support (10,591)
- 3) Food Preparation and Serving (10,041)
- 4) Transportation and Material Moving (8,499)
- 5) Production (6,938)

## Top Occupations by 5-Year Average Annual Forecasted Employment Growth

- 1) Healthcare Support (+2.2%)
- 2) Personal Care and Service (+1.9%)
- 3) Food Preparation and Serving (+1.6%)
- 4) Community and Social Service (+1.5%)
- 5) Healthcare Practitioners and Technical (+1.4%)

## Top Occupations by Location Quotient (LQ)

- 1) Personal Care and Service (1.45)
- 2) Food Preparation and Serving (1.28)
- 3) Sales and Related (1.25)
- 4) Production (1.24)
- 5) Educational Instruction and Library (1.10)

## Top Occupations by Average Wage

- 1) Management (\$117,000)
- 2) Legal (\$111,400)
- 3) Healthcare Practitioners (\$102,600)
- 4) Computer and Mathematical (\$96,300)
- 5) Architecture and Engineering (\$88,700)

## Lowest Unemployment Rate Occupations

- 1) Healthcare Practitioners (0.6%, 53)
- 2) Legal (0.8%, 10)
- 3) Computer and Mathematical (0.8%, 44)
- 4) Architecture and Engineering (0.9%, 25)
- 5) Community and Social Service (0.9%, 37)

# Regional Industry and Career Highlights

## Northern

### Top Industries

- 1) Retail Trade (HD, LQ, HW)
- 2) Manufacturing (HD, LQ, HW)
- 3) Other Services (HD, LQ)
- 4) Construction (HD, LQ, HW)
- 5) Educational Services (HD, LQ)

### Top Detailed Industries

- 1) Custom Architectural Woodwork and Millwork Manufacturing
- 2) Die and Tool Manufacturing
- 3) Industrial Mold Manufacturing

### Top Career Clusters

- 1) Manufacturing
- 2) Architecture and Construction
- 3) Marketing, Sales, and Service
- 4) Business, Management, and Admin
- 5) Human Services

## Central

### Top Industries

- 1) Manufacturing (HD, LQ, HW)
- 2) Management\* (HD, LQ, HW)
- 3) Arts and Entertainment (HD, LQ)
- 4) Retail Trade (HD, LQ)
- 5) Public Admin. (HD, LQ HW)

### Top Detailed Industries

- 1) Wood Window and Door Manufacturing
- 2) Chemical Product Manufacturing
- 3) In-Vitro Diagnostic Substance Manufacturing

### Top Career Clusters

- 1) Manufacturing
- 2) Health Science
- 3) Human Services
- 4) Hospitality and Tourism
- 5) Marketing, Sales, and Service

## Southern

### Top Industries

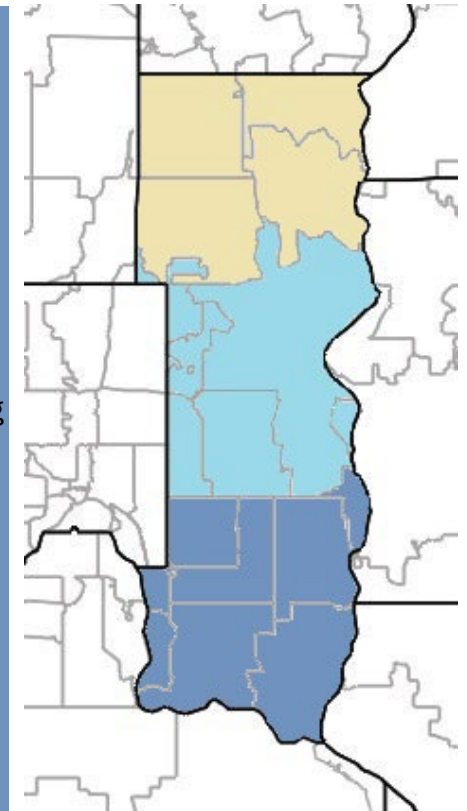
- 1) Retail Trade (HD, LQ)
- 2) Arts and Entertainment (HD, LQ)
- 3) Other Services (HD, LQ)
- 4) Accom. and Food (HD, LQ)
- 5) Agriculture (HD, LQ)

### Top Detailed Industries

- 1) Wood Window and Door Manufacturing
- 2) Unlaminated Plastics Manufacturing
- 3) Petroleum Refineries

### Top Career Clusters

- 1) Health Science
- 2) Human Services
- 3) Marketing, Sales, and Service
- 4) Hospitality and Tourism
- 5) Education and Training







## **03. Industry Analysis**

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# Industry Analysis



Based on an analysis of local concentration of industry employment, importance to local economy, and future employment demand, three critical industries are the topic of focus for workforce and economic development opportunity.

## Approach

- Detail the unique concentration of sub-industries within each of the three critical industries
- Outline the economic contributions of each industry to the county and regional economy
- Perform a spatial evaluation of industry importance by region across the county's north, central, and southern areas
- Identify the top occupations for employment by industry and assessed their unique workforce challenges and opportunities, including necessary skillsets and training
- Feature industry-specific commute patterns, remote work trends, and postsecondary program graduate demographics



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The Washington County CDA's mission is

**To improve the lives of Washington County residents by providing access to affordable housing and supporting community and economic development in local municipalities.**

”



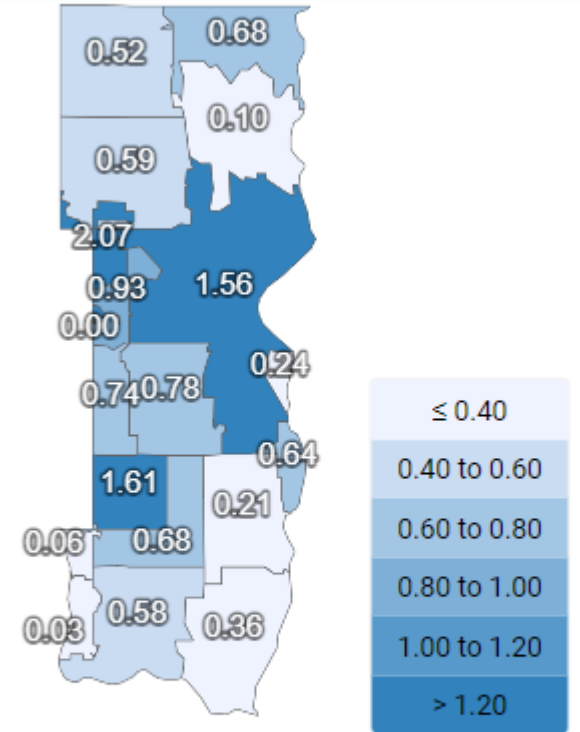
# Healthcare Industry

The Healthcare Industry is an important foundation to Washington County's economy in its local economic contributions and social stability offerings. Southern and Central Washington County have uniquely high concentrations of Ambulatory Health Care Services and Nursing and Residential Care Facilities compared to the concentration of these industries at the national level. Demand has been strong and is forecast to continue to grow in the county and surrounding region.

## Key Findings

- Zip codes in Central and Southern Washington County have particularly high concentration of Healthcare firms (Southern LQ 1.11 and Central LQ 1.05), particularly Ambulatory Health Care Services and Nursing and Residential Care Facilities
- Dangerously low local unemployment rates in Health Science pathways may fuel ongoing talent shortages
- The county has strong local postsecondary program offerings serving the Healthcare Industry, positioning it well for increasing graduate volumes and meeting talent demand

Location Quotient of Healthcare Industry Employment by Washington County Zip Code



Source: JobsEQ®, Powered by ESRI. Data a four-quarter average ending in 2022Q3

# Healthcare Industry Firms

## The Healthcare Industry's Contribution to GDP

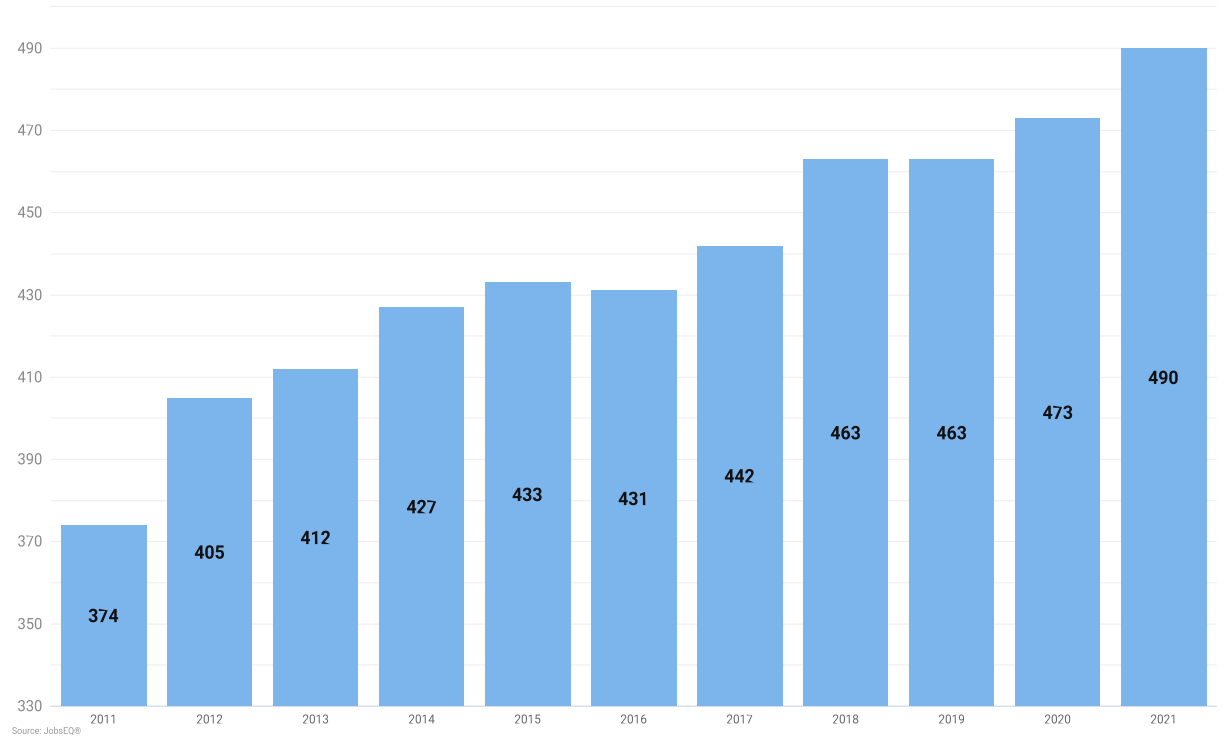
8.2% Industry Share of Total GDP (7.6 % in the nation)

+5.7% Average Annual GDP growth (+3.8% in the nation)

\$148K Output per Worker (\$162K in the nation)

3-digit Supplier Industries	Purchases from In-Region (\$M)	Purchases from Out-of-Region (\$M)
Professional, Scientific, and Technical Services	\$44.4	\$43.5
Real Estate	\$48.5	\$38.9
Chemical Manufacturing	\$5.2	\$54.3
Insurance Carriers and Related Activities	\$22.2	\$31.6
Administrative and Support Services	\$22.0	\$28.7
Remaining Supplier Industries	\$132.5	\$182.5
<b>Total</b>	<b>\$274.8</b>	<b>\$379.5</b>

## Healthcare Firms in Washington County by Year



## Healthcare Employers by Type

	Empl	%
Private	11,156	97.3%
Self-Employment	304	2.7%

# Healthcare Industry Detail

3-Digit Industry	Empl	Avg Ann Wages	LQ	North LQ	Central LQ	South LQ	5yr History	Annual Demand	Forecast Ann Growth
Ambulatory Health Care Services	6,835	\$72,607	1.27	0.82	1.27	1.41		766	1.6%
Nursing and Residential Care Facilities	2,576	\$35,725	1.32	0.80	1.43	1.35		353	1.2%
Hospitals	2,049	\$78,994	0.51	0.02	0.56	0.60		196	0.9%
Healthcare Industry	11,460	\$65,458	1.01	0.53	1.05	1.11		1,316	1.4%

## Jobs in the Healthcare Industry

11,460 Total Employment

+2.8% average annual growth over the past ten years compared to -0.1% statewide and +1.2% nationally

11.6% of Total Employment compared to 11.4% nationally

1.01 Location Quotient

\$65,458 average wages compared to \$69,454 nationally

### Industry Staffing Pattern



# Healthcare Industry Occupational Employment

Occupation Distribution for Healthcare in Washington County, Minnesota, Baseline							
SOC	Occupation	Current		5-Year Demand			Total Demand
		Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	
29-1141	Registered Nurses	1,270	\$80,600	213	167	70	450
31-1122	Personal Care Aides	901	\$28,300	360	317	87	764
31-1131	Nursing Assistants	540	\$36,600	184	240	28	452
43-6013	Medical Secretaries and Administrative Assistants	520	\$42,000	156	159	31	346
31-9092	Medical Assistants	440	\$42,600	110	221	45	376
43-4171	Receptionists and Information Clerks	362	\$34,400	119	141	22	281
29-2061	Licensed Practical and Licensed Vocational Nurses	337	\$49,500	71	73	20	163
31-1121	Home Health Aides	320	\$28,300	93	100	31	224
31-9091	Dental Assistants	318	\$52,300	92	148	19	260
29-1292	Dental Hygienists	242	\$77,400	54	29	15	98
43-9061	Office Clerks, General	219	\$40,800	70	70	2	142
11-9111	Medical and Health Services Managers	214	\$103,000	35	62	36	133
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	204	\$50,700	41	63	24	128
35-3041	Food Servers, Nonrestaurant	200	\$30,400	87	81	13	181
29-1171	Nurse Practitioners	163	\$117,500	24	29	50	104
	Other Occupations	5,185		1,075	1,340	297	2,713
	<b>Total</b>	<b>11,434</b>		<b>2,784</b>	<b>3,239</b>	<b>789</b>	<b>6,814</b>

**Jobs in the Health Science Cluster**

**8,731** Total Employment

**+3.3%** average annual growth over the past ten years compared to **+0.3%** statewide

**1.0%** unemployment rate (133 people) compared to **1.2%** statewide (3,416 people)

**0.98** Location Quotient

**\$82,500** average wages compared to **\$83,700** statewide



# Regional Healthcare Highlights

## Northern

### Top Detailed Industries

- 1) Offices of Chiropractors (LQ 2.70)
- 2) Offices of Mental Health Practitioners (LQ 1.79)
- 3) Offices of Physicians, Mental Health Specialists (LQ 1.61)
- 4) Offices of Dentists (LQ 1.51)
- 5) Offices of Optometrists (LQ 1.22)

### Talent Shortages

- 1) Registered Nurses
- 2) Nursing Assistants
- 3) Medical Secretaries

## Central

### Top Detailed Industries

- 1) Offices of Physicians, Mental Health Specialists (LQ 7.39)
- 2) Continuing Care Retirement Communities (LQ 5.27)
- 3) Offices of Chiropractors (LQ 2.05)
- 4) Outpatient Mental Health and Substance Abuse Centers (LQ 1.98)
- 5) Offices of Mental Health Practitioners (LQ 1.88)

### Talent Shortages

- 1) Registered Nurses
- 2) Nursing Assistants
- 3) Medical Assistants
- 4) Medical and Health Services Managers
- 5) Nurse Practitioners
- 6) Licensed Practical Nurses
- 7) Physical Therapists
- 8) Speech-Language Pathologists
- 9) Dental Hygienists
- 10) Veterinarians

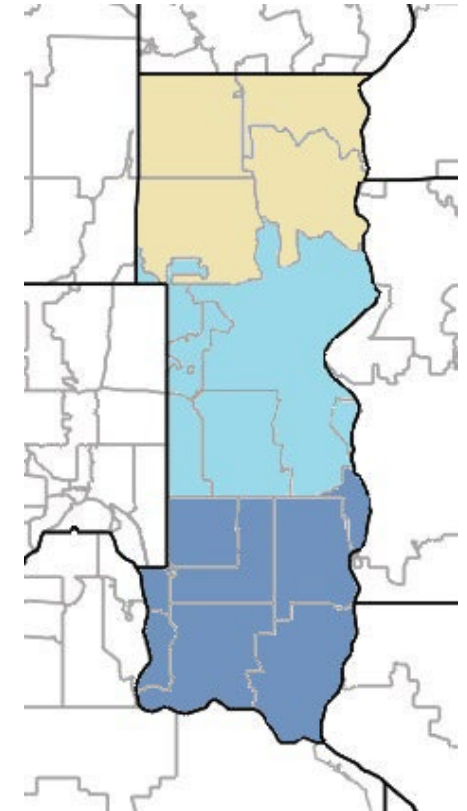
## Southern

### Top Detailed Industries

- 1) Offices of Physicians, Mental Health Specialists (LQ 13.93)
- 2) Continuing Care Retirement Communities (LQ 3.14)
- 3) Offices of Chiropractors (LQ 2.71)
- 4) HMO Medical Centers (LQ 2.45)
- 5) Residential Intellectual and Developmental Disability Facilities (LQ 2.34)

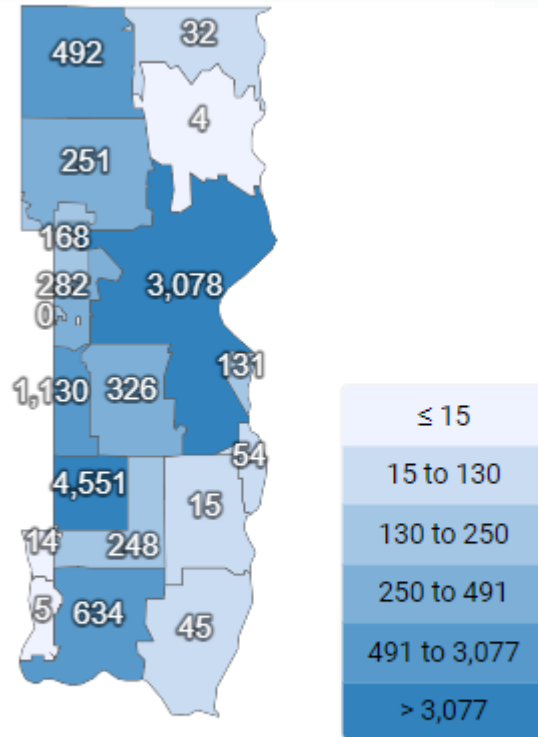
### Talent Shortages

- 1) Registered Nurses
- 2) Nurse Practitioners
- 3) Medical and Health Services Managers
- 4) Licensed Practical Nurses
- 5) Medical Assistants
- 6) Radiologic Techs
- 7) Veterinarians
- 8) Dental Assistants
- 9) Speech-Language Pathologists
- 10) Pharmacy Technicians



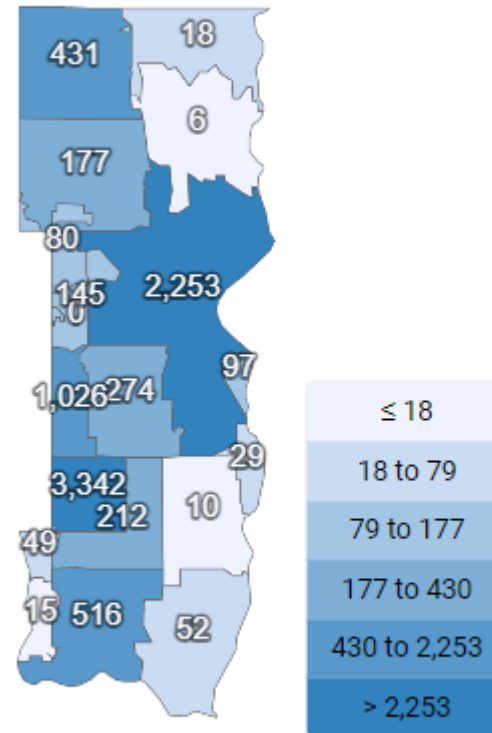
# Healthcare Industry Workforce by Location

Healthcare Industry Employment by Washington County Zip Code



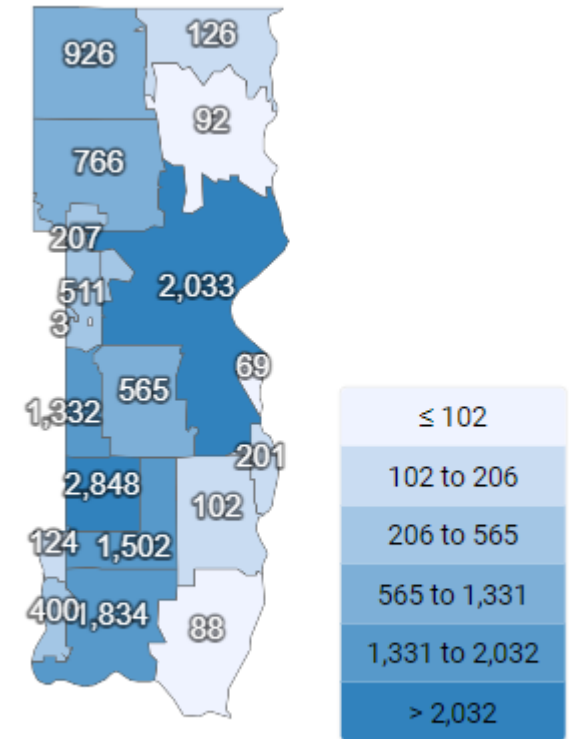
Source: JobsEQ®, Powered by ESRI. Data a four-quarter average ending in 2022Q3

Health Science Occupational Employment by Washington County Zip Code Place of Work



Source: JobsEQ®, Powered by ESRI. Data as of 2022Q3

Health Science Occupational Employment by Washington County Zip Code Residence

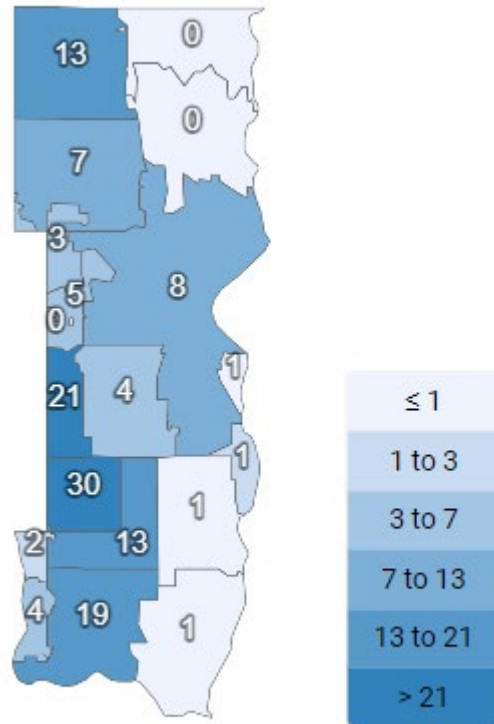


JobsEQ®, Powered by ESRI.



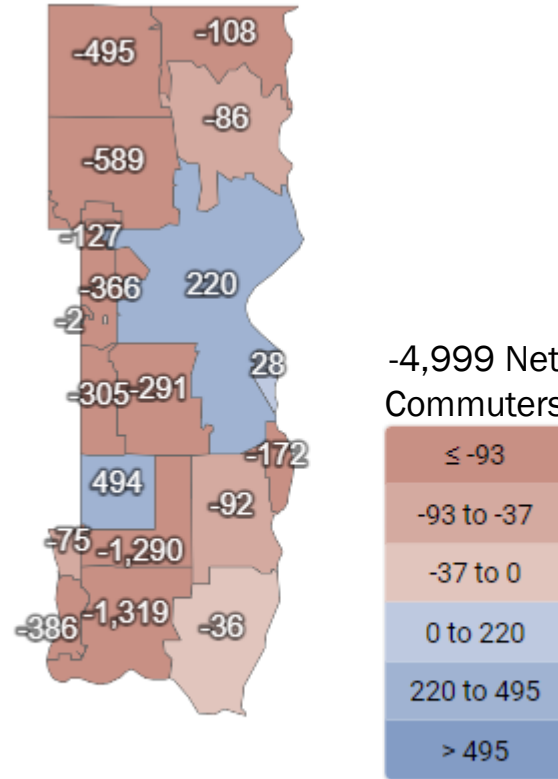
# Health Science Cluster by Location

Health Science Unemployment by Washington County Zip Code



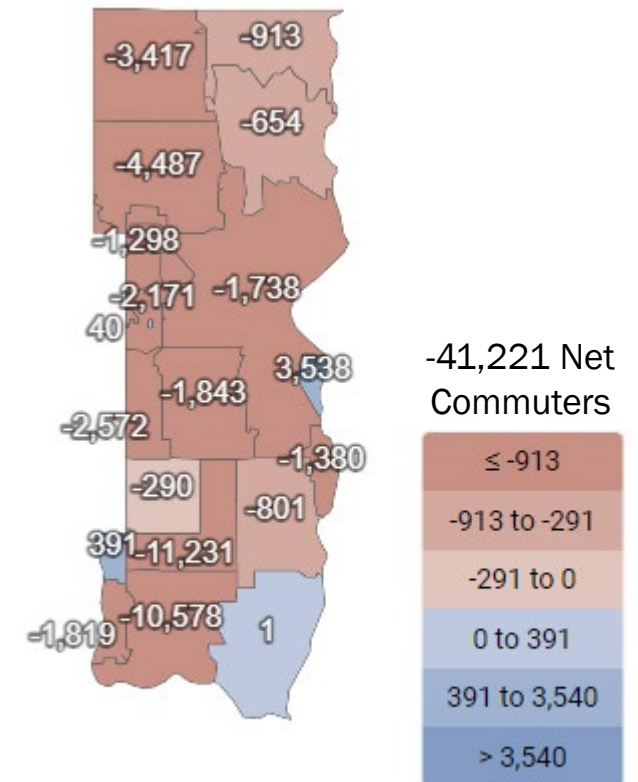
Source: JobsEQ®, Powered by ESRI.  
Data as of 2022Q4

Health Science Occupational Net Commuting Pattern by Washington County Zip Code



Source: JobsEQ®, Powered by ESRI  
Data as of 2022Q3

All Occupational Net Commuting Pattern by Washington County Zip Code





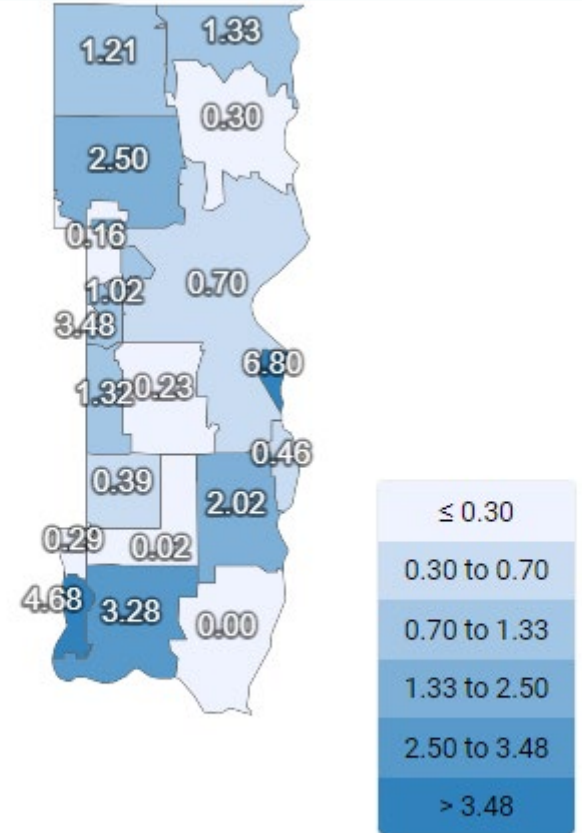
# Manufacturing Industry

It is difficult to overstate the importance of Manufacturing to the MSP Metro’s economy, and Washington County has a unique concentration of jobs in this critical sector (LQ 1.39). Over 11,100 people work in the Manufacturing Industry in Washington County, making average wages of about \$75,300—well above the overall local average wage. The 219 Manufacturing firms located in Washington County contributed about \$2.2 billion in GDP for the county in 2021, representing about 18.1% of the total local GDP (compared to 10.6% that Manufacturing contributes nationwide). Demand has been strong and is forecast to continue to grow in the county at a rate of about 0.4% on average annually through 2027.

## Key Findings

- Several zip codes in the southwest corner of Washington County have particularly high concentration of Manufacturing firms, but Northern Washington County has the highest overall concentration of employment (LQ 1.56)
- High replacement demand needs and an older than average workforce signal the importance of talent pipeline planning
- Over half of the workforce currently employed in the industry will need to be replaced over the next five years

Location Quotient of Manufacturing Industry Employment by Washington County Zip Code



# Manufacturing Industry Firms

The Manufacturing Industry's Contribution to GDP

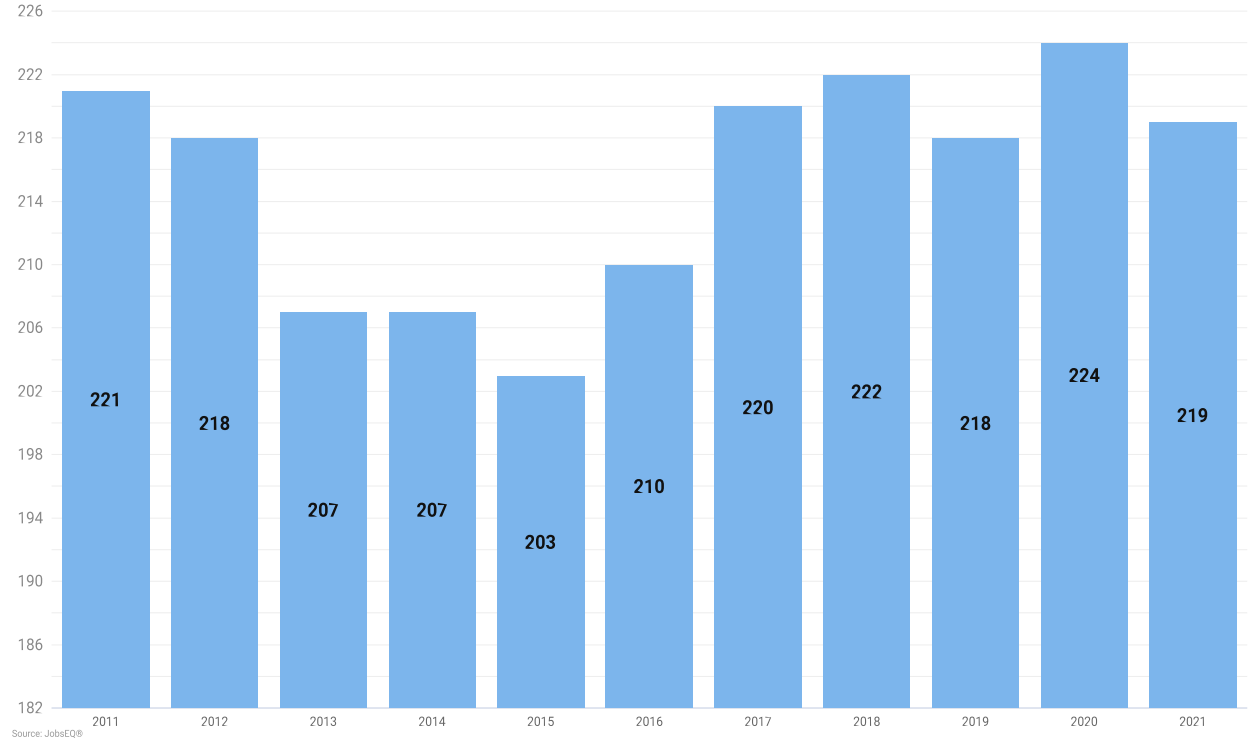
18.1% Industry Share of Total GDP (10.6 % in the nation)

+2.0% Average Annual GDP growth (+2.6% in the nation)

\$680K Output per Worker (\$600K in the nation)

3-digit Supplier Industries	Purchases from In-Region (\$M)	Purchases from Out-of-Region (\$M)
Crude Petroleum Extraction	<\$0.1	\$930.7
Natural Gas Extraction	\$19.5	\$309.1
Petroleum Refineries	\$115.4	\$63.5
Corporate, Subsidiary, and Regional Managing Offices	\$45.7	\$90.9
Offices of Lawyers	\$8.1	\$64.5
Remaining Supplier Industries	\$305.1	\$2,533.6
<b>Total</b>	<b>\$493.7</b>	<b>\$3,992.3</b>

Manufacturing Firms in Washington County by Year



Manufacturing Employers by Type

	Empl	%
Private	10,871	97.9%
Self-Employment	237	2.1%

Source: Chmura JobsEQ 2022Q3 Dataset. Names of Industry NAICS or Occupation SOC may be abbreviated.



# Manufacturing Industry Detail

3-Digit Industry	Empl	Avg Ann Wages	LQ	North LQ	Central LQ	South LQ	5yr History	Annual Demand	Forecast Ann Growth
Wood Product Manufacturing	4,329	\$99,520	15.75	7.60	21.06	12.95		515	0.6%
Chemical Manufacturing	1,155	\$104,890	2.07	1.60	3.23	1.08		126	0.6%
Machinery Manufacturing	835	\$85,509	1.23	4.71	0.85	0.58		79	-0.8%
Fabricated Metal Product Manufacturing	808	\$65,298	0.90	2.49	0.52	0.81		88	0.2%
Plastics and Rubber Products Manufacturing	781	\$60,721	1.69	1.18	1.38	2.14		91	0.8%
Miscellaneous Manufacturing	765	\$64,297	1.84	1.15	2.29	1.62		88	0.7%
Food Manufacturing	601	\$38,116	0.57	0.30	0.56	0.65		80	0.7%
Petroleum and Coal Products Manufacturing	415	\$159,611	6.37	0.29	0.14	14.23		44	0.5%
Computer and Electronic Product Manufacturing	352	\$58,759	0.53	0.48	0.97	0.11		35	0.6%
Printing and Related Support Activities	254	\$64,047	1.03	3.02	1.36	0.13		22	-2.4%
Remaining Component Industries	814	\$49,374	0.43	0.28	0.36	0.34		92	-0.5%
<b>Manufacturing</b>	<b>11,108</b>	<b>\$75,300</b>	<b>1.39</b>	<b>1.56</b>	<b>1.56</b>	<b>1.16</b>		<b>1,255</b>	<b>0.4%</b>

## Jobs in the Manufacturing Industry

11,108 Total Employment

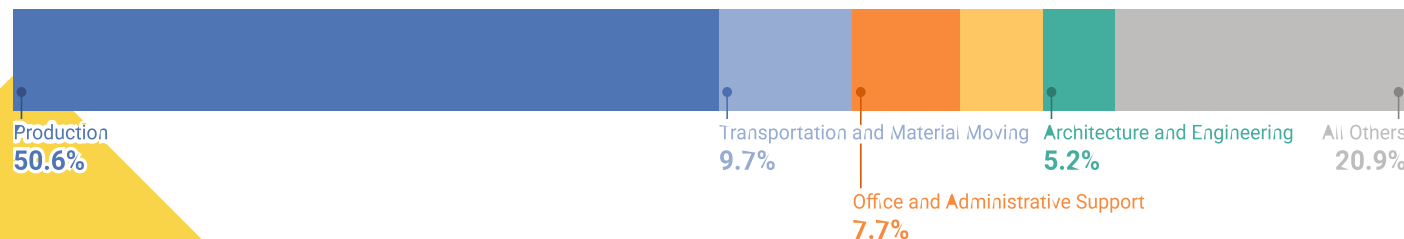
+3.9% average annual growth over the past ten years compared to +0.5% statewide and +0.6% nationally

11.2% of Total Employment compared to 8.1% nationally

1.39 Location Quotient

\$75,300 average wages compared to \$79,193 nationally

### Industry Staffing Pattern



# Manufacturing Industry Occupational Employment

Occupation Distribution for Manufacturing in Washington County, Minnesota, Baseline

SOC	Occupation	Current		5-Year Demand			Total Demand
		Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	
51-2092	Team Assemblers	1,131	\$37,500	221	410	-62	569
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	547	\$41,900	101	187	31	320
51-1011	Supervisors of Production/Operating Workers	425	\$66,400	79	147	15	241
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	385	\$37,500	97	185	19	300
11-1021	General and Operations Managers	264	\$117,800	31	87	10	129
41-4012	Sales Representatives, Wholesale and Manufacturing	261	\$75,000	46	89	9	144
47-2031	Carpenters	252	\$43,200	45	78	14	138
51-9061	Inspectors, Testers, Sorters, and Weighers	232	\$44,600	47	88	-13	123
17-2112	Industrial Engineers	224	\$93,800	28	46	17	91
51-4041	Machinists	221	\$52,000	43	76	3	122
51-7011	Cabinetmakers and Bench Carpenters	206	\$42,000	48	68	11	127
53-7051	Industrial Truck and Tractor Operators	189	\$46,200	33	79	10	121
43-9061	Office Clerks, General	186	\$41,400	58	58	-2	114
53-3032	Heavy and Tractor-Trailer Truck Drivers	175	\$51,500	42	65	9	116
49-9071	Maintenance and Repair Workers, General	173	\$51,900	37	50	8	95
	Other Occupations	6,214		1,283	2,151	134	3,570
	<b>Total</b>	<b>11,084</b>		<b>2,237</b>	<b>3,865</b>	<b>214</b>	<b>6,318</b>

## Jobs in the Manufacturing Cluster

8,855 Total Employment

+2.8% average annual growth over the past ten years compared to -0.1% statewide

2.0% unemployment rate (194 people) compared to 2.3% statewide (6,242 people)

1.12 Location Quotient

\$50,600 average wages compared to \$52,400 statewide

# Regional Manufacturing Highlights

## Northern

### Top Detailed Industries

- 1) Custom Architectural Woodwork and Millwork (LQ 58.79)
- 2) Spring (LQ 56.55)
- 3) Special Die and Tool, Die Set, Jig, and Fixture (LQ 48.78)
- 4) Industrial Mold (LQ 48.21)
- 5) Wood Window and Door (LQ 30.22)

### Talent Shortages

- 1) Maintenance and Repair Workers

## Central

### Top Detailed Industries

- 1) Wood Window and Door (LQ 154.02)
- 2) Chemical Product and Preparation (LQ 39.07)
- 3) In-Vitro Diagnostic Substance (LQ 33.43)
- 4) Photographic Film, Paper, Plate, Chemical, and Copy Toner (LQ 13.67)
- 5) Printed Circuit Assembly (LQ 13.22)

### Talent Shortages

- 1) Woodworking Machine Operators
- 2) Maintenance and Repair Workers
- 3) Industrial Machinery Mechanics
- 4) Machinists
- 5) Welders
- 6) Packaging Machine Operators
- 7) Cabinetmakers and Bench Carpenters
- 8) Mechanics Supervisors
- 9) Production Supervisors
- 10) Chemical Equipment Operators

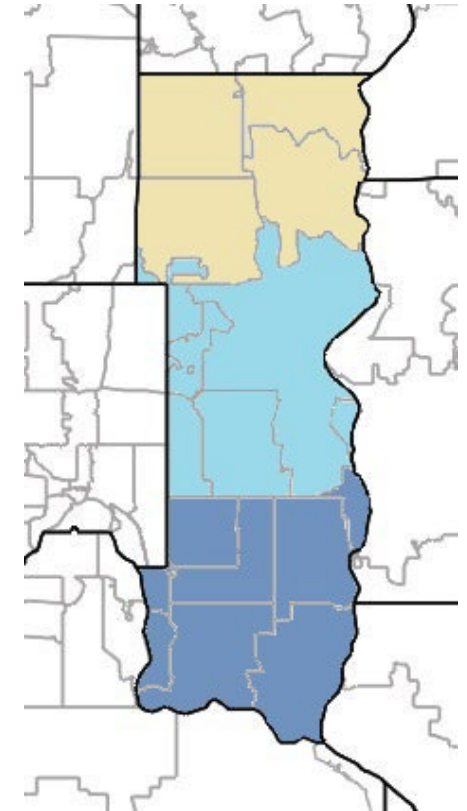
## Southern

### Top Detailed Industries

- 1) Wood Window and Door (LQ 95.67)
- 2) Unlaminated Plastics Film and Sheet (LQ 35.84)
- 3) Petroleum Refineries (LQ 25.07)
- 4) Stationery Product (LQ 23.20)
- 5) Chemical Product and Preparation (LQ 18.65)

### Talent Shortages

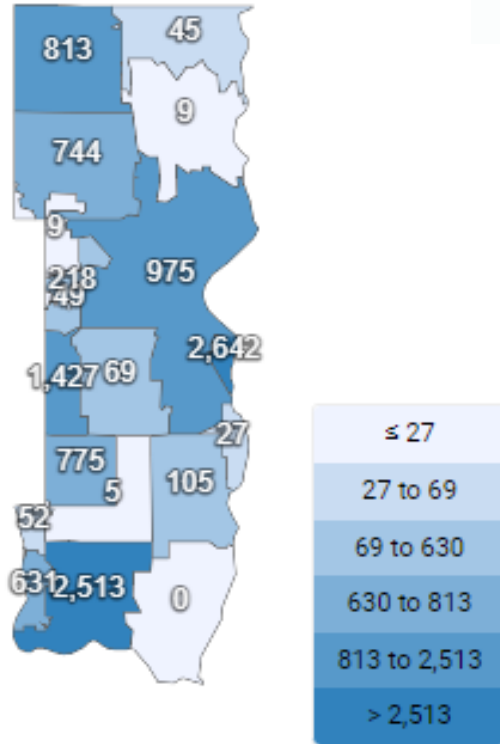
- 1) Maintenance and Repair Workers
- 2) Woodworking Machine Operators
- 3) Industrial Machinery Mechanics
- 4) Mechanics Supervisors
- 5) Production Supervisors





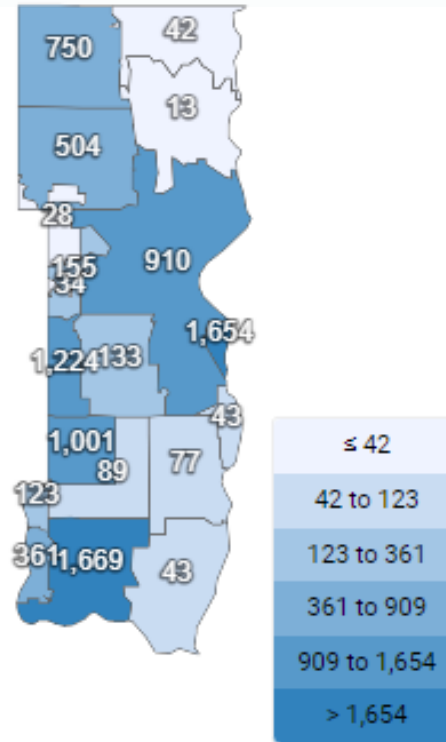
# Manufacturing Industry Workforce by Location

Manufacturing Industry Employment by Washington County Zip Code



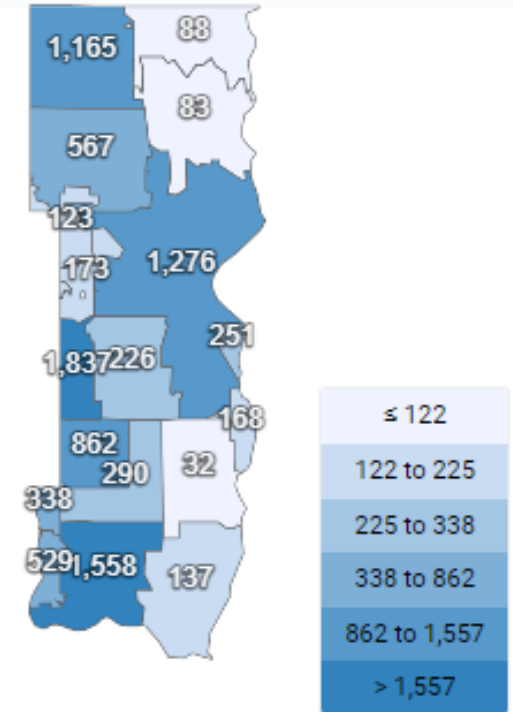
Source: JobsEQ®, Powered by ESRI. Data a four-quarter average ending in 2022Q3

Manufacturing Cluster Occupational Employment by Washington County Zip Code Place of Work



Source: JobsEQ®, Powered by ESRI. Data as of 2022Q3

Manufacturing Cluster Occupational Employment by Washington County Zip Code Residence

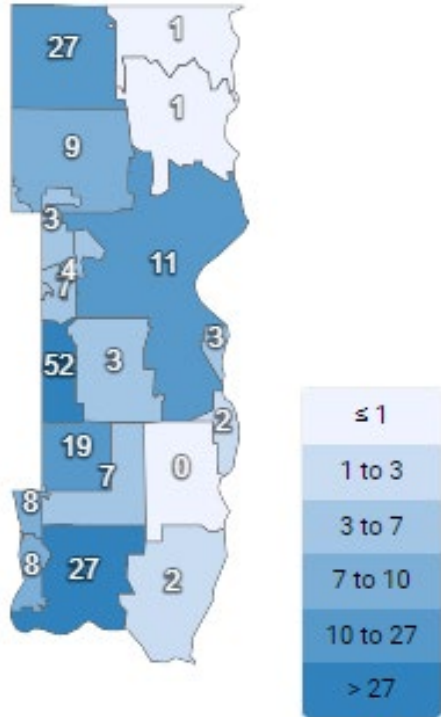


Source: Chmura JobsEQ 2022Q3 Dataset. Names of Industry NAICS or Occupation SOC may be abbreviated.



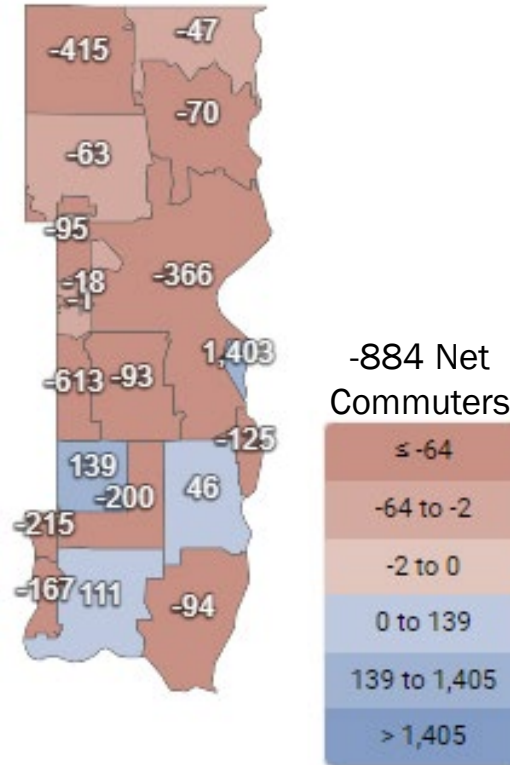
# Manufacturing Cluster by Location

Manufacturing Unemployment by Washington County Zip Code



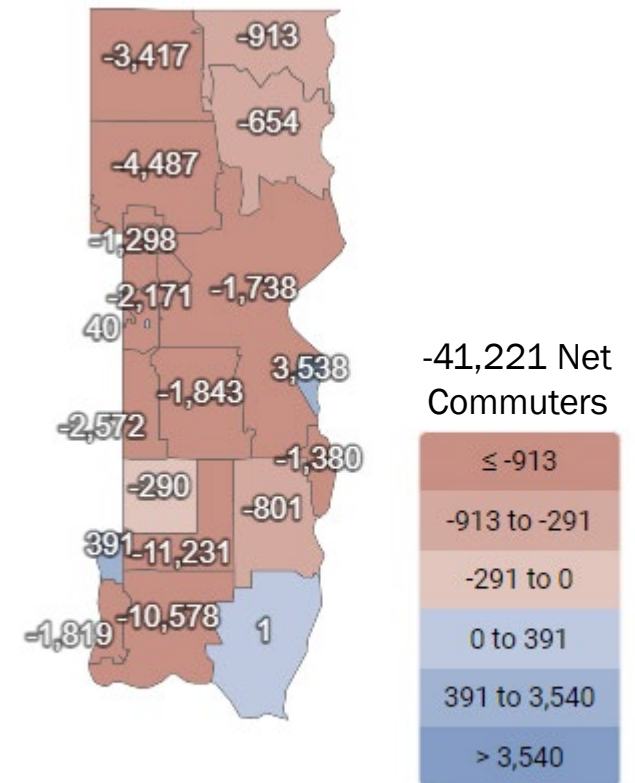
Source: JobsEQ®, Powered by ESRI. Data as of 2022Q4

Manufacturing Occupational Net Commuting Pattern by Washington County Zip Code



Source: JobsEQ®, Powered by ESRI. Data as of 2022Q3

All Occupational Net Commuting Pattern by Washington County Zip Code





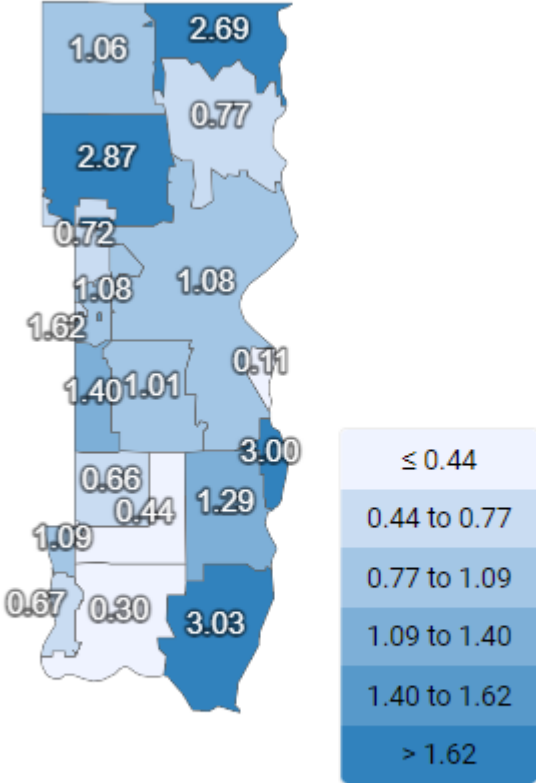
# Construction Industry

Nearly 6,000 people work in the Construction Industry in Washington County, rising 4.5% on average annually over the past five years and forecasting 0.7% average annual growth over the coming five years under a baseline forecast. Construction roles are about as concentrated in Washington County as a typical community nationally, (LQ 0.98), but prefabricated construction components including drywall and structural steel contractors are uniquely found in high number in Washington County. The Industry pays average wages of \$68,943 annually, well above the county’s average overall wage.

## Key Findings

- Nonresidential Drywall Contractors (LQ 6.43); Power and Communication Line Construction (LQ 3.39); Nonresidential Structural Steel Contractors (LQ 2.80) are the most uniquely concentrated sub-industries in Washington County’s Construction Industry
- Residential Roofing Contractors, Nonresidential Plumbing and HVAC Contractors, and Power Line Construction sub-industries all saw significant growth over the past five years, averaging annually 29.9%, 29.2%, and 20.0% growth in the county respectively
- The county’s local postsecondary programming is likely underproducing Cost Estimators, Construction Managers, and Civil Engineers needed in the local talent pipeline

Location Quotient of the Construction Industry Employment by Washington County Zip Code



Source: JobsEQ®, Powered by ESRI. Data a four-quarter average ending in 2022Q3

# Construction Industry Firms

## The Construction Industry's Contribution to GDP

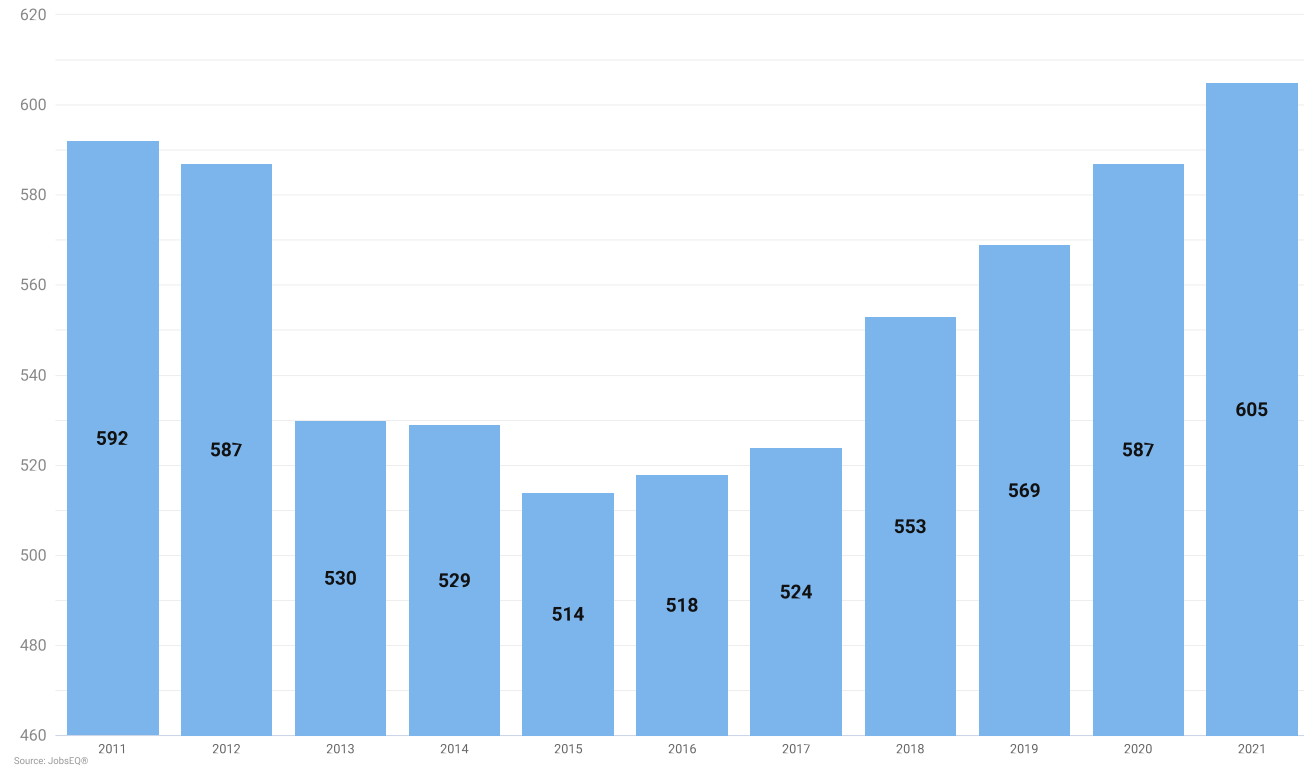
5.6% Industry Share of Total GDP (4.3% in the nation)

+8.7% Average Annual GDP growth (+6.3% in the nation)

\$251K Output per Worker (\$232K in the nation)

3-digit Supplier Industries	Purchases from In-Region (\$M)	Purchases from Out-of-Region (\$M)
Petroleum Refineries	\$31.0	\$6.8
Engineering Services	\$10.9	\$13.4
All Other Plastics Product Manufacturing	\$13.9	\$1.0
Ready-Mix Concrete Manufacturing	\$8.1	\$6.8
Wood Kitchen Cabinet and Countertop Manufacturing	\$4.2	\$8.9
Remaining Supplier Industries	\$108.7	\$393.2
<b>Total</b>	<b>\$176.9</b>	<b>\$430.1</b>

## Construction Firms in Washington County by Year



## Construction Employers by Type

Type	Empl	%
Private	4,398	76.5%
Self-Employment	965	16.8%
Government	385	6.7%

Source: Chmura JobsEQ 2022Q3 Dataset.



# Construction Industry Detail

6-Digit Industry	Empl	Avg Ann Wages	LQ	North LQ	Central LQ	South LQ	5yr History	Annual Demand	Forecast Ann Growth
Nonresidential drywall contractors	534	\$80,296	6.43	9.72	6.78	5.12		52	0.7%
Residential Remodelers	487	\$57,175	1.11	0.91	1.18	1.09		49	0.6%
Power and Communication Line and Related Structures Construction	481	\$74,480	3.39	17.37	1.01	1.63		52	1.2%
Highway, Street, and Bridge Construction	424	\$73,697	1.33	0.97	2.61	0.17		47	1.0%
Commercial and Institutional Building	400	\$106,011	0.88	1.18	1.29	0.40		40	0.6%
Residential plumbing and HVAC contractors	345	\$71,685	0.77	1.28	2.29	0.62		37	0.5%
Nonresidential plumbing and HVAC contractors	304	\$103,599	0.85	1.15	0.82	0.67		32	0.5%
New Single-Family Housing Construction (except For-Sale Builders)	293	\$70,867	0.91	1.34	0.90	0.81		30	0.6%
Residential site preparation contractors	229	\$51,153	1.30	1.96	1.37	1.04		24	0.6%
All other residential trade contractors	220	\$48,666	1.05	1.04	1.11	0.85		24	0.6%
Remaining Component Industries	2,031	\$59,972	0.71	1.02	0.73	0.59		210	0.6%
<b>Construction</b>	<b>5,747</b>	<b>\$68,943</b>	<b>0.98</b>	<b>1.63</b>	<b>1.07</b>	<b>0.70</b>		<b>603</b>	<b>0.7%</b>

## Jobs in the Construction Industry

5,747 Total Employment

+3.8% average annual growth over the past ten years compared to +2.4% statewide and +2.7% nationally

5.8% of Total Employment compared to 5.9% nationally

0.98 Location Quotient

\$68,943 average wages compared to \$65,968 nationally

Industry Staffing Pattern



# Construction Industry Occupational Employment

Occupation Distribution for Manufacturing in Washington County, Minnesota, Baseline

SOC	Occupation	Current		5-Year Demand			Total Demand
		Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	
47-2061	Construction Laborers	772	\$51,800	146	252	43	440
47-2031	Carpenters	732	\$65,200	127	220	17	364
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	348	\$84,100	60	108	14	182
11-9021	Construction Managers	238	\$100,900	29	67	18	114
47-2152	Plumbers, Pipefitters, and Steamfitters	221	\$80,200	38	78	8	123
47-2073	Operating Engineers and Other Construction Equipment Operators	193	\$72,200	36	66	8	110
47-2111	Electricians	177	\$69,800	32	64	11	106
43-9061	Office Clerks, General	176	\$44,800	55	55	-3	107
47-2141	Painters, Construction and Maintenance	169	\$53,700	30	45	6	81
11-1021	General and Operations Managers	153	\$113,300	18	51	6	74
47-2081	Drywall and Ceiling Tile Installers	153	\$63,600	21	42	6	70
13-1082	Project Management Specialists	147	\$83,000	17	43	5	66
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	128	\$63,000	20	42	4	66
47-2051	Cement Masons and Concrete Finishers	117	\$62,400	15	36	0	52
53-3032	Heavy and Tractor-Trailer Truck Drivers	98	\$55,600	23	36	4	63
	Other Occupations	1,899		358	628	54	1,041
	<b>Total</b>	<b>5,720</b>		<b>1,026</b>	<b>1,833</b>	<b>201</b>	<b>3,060</b>

## Jobs in the Architecture and Construction Cluster

6,818 Total Employment

+2.3% average annual growth over the past ten years compared to +1.1% statewide

2.3% unemployment rate (164 people) compared to 2.9% statewide (5,425 people)

1.01 Location Quotient

\$64,400 average wages compared to \$66,600 statewide

# Regional Construction Highlights

## Northern

### Top Detailed Industries

- 1) Power and Communication Line and Related Structures Construction (LQ 17.37)
- 2) Nonresidential Drywall Contractors (LQ 9.72)
- 3) Nonresidential Structural Steel Contractors (LQ 4.12)
- 4) Other Heavy and Civil Engineering Construction (LQ 2.89)
- 5) Residential Finish Carpentry Contractors (LQ 2.21)

### Talent Shortages

- 1) Construction Supervisors
- 2) Carpenters

## Central

### Top Detailed Industries

- 1) Nonresidential Drywall Contractors (LQ 6.78)
- 2) Nonresidential Structural Steel Contractors (LQ 2.95)
- 3) Highway, Street, and Bridge Construction (LQ 2.61)
- 4) New Multifamily Housing Construction (except For-Sale Builders) (LQ 1.63)
- 5) Residential Finish Carpentry Contractors (LQ 1.57)

### Talent Shortages

- 1) Carpenters
- 2) Plumbers and Pipefitters
- 3) Painters, Construction and Maint.
- 4) Electricians
- 5) Operating Engineers
- 6) Drywall and Ceiling Tile Installers
- 7) Construction Managers
- 8) Construction Supervisors

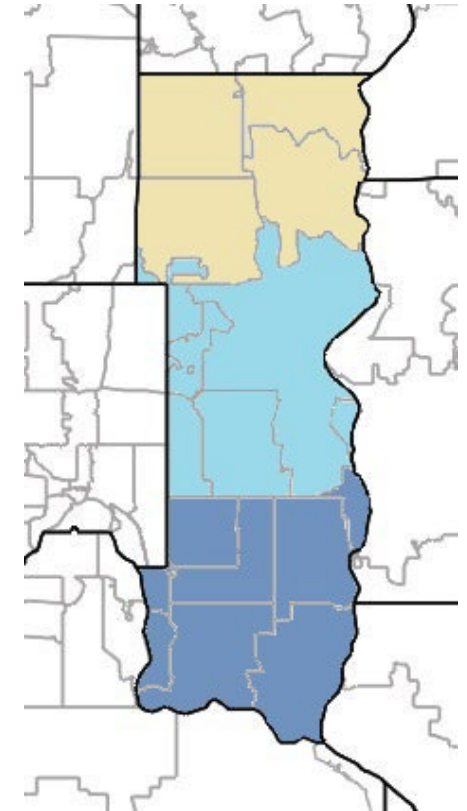
## Southern

### Top Detailed Industries

- 1) Nonresidential Drywall Contractors (LQ 5.12)
- 2) New Multifamily Housing Construction (except For-Sale Builders) (LQ 4.35)
- 3) Nonresidential Structural Steel Contractors (LQ 2.26)
- 4) Power and Communication Line and Related Structures Construction (LQ 1.63)
- 5) Residential Finish Carpentry Contractors (LQ 1.20)

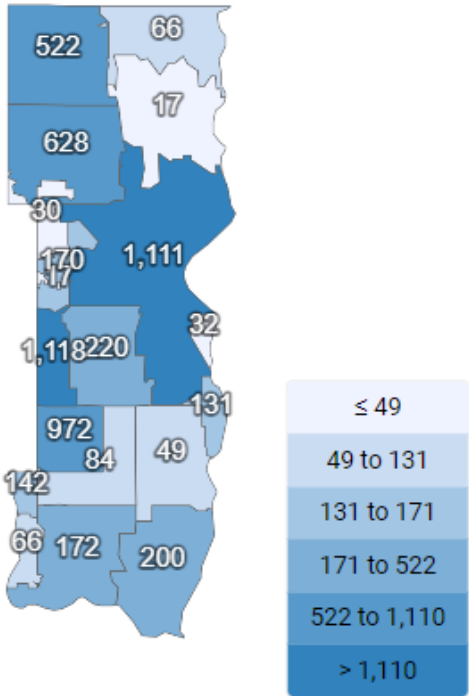
### Talent Shortages

- 1) Carpenters
- 2) Painters, Construction and Maint.
- 3) Drywall and Ceiling Tile Installers
- 4) Construction Managers
- 5) Construction Supervisors



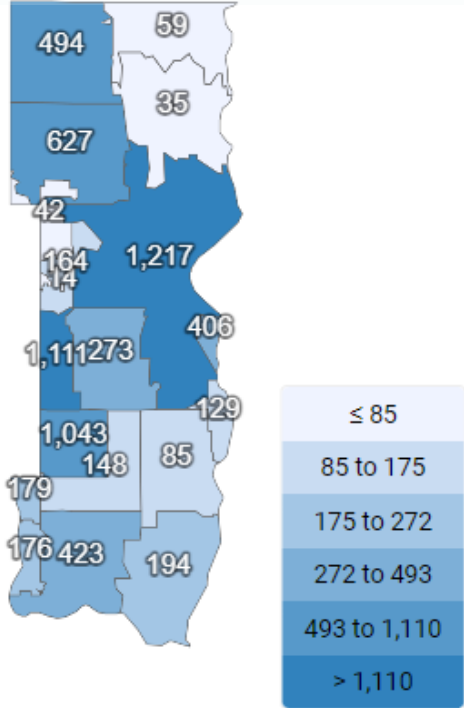
# Construction Industry Workforce by Location

Construction Industry Employment by Washington County Zip Code



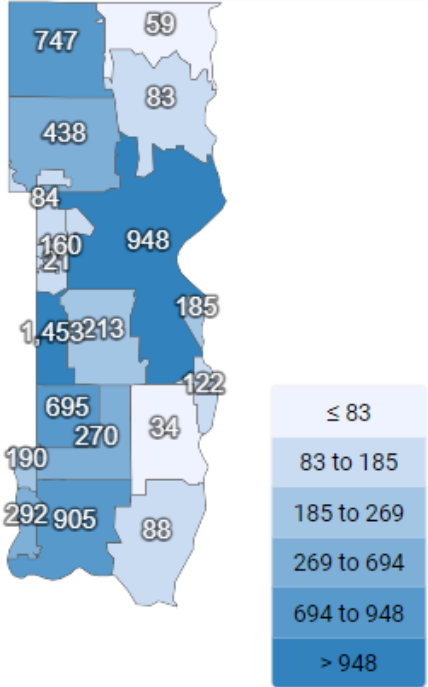
Source: JobsEQ®, Powered by ESRI. Data a four-quarter average ending in 2022Q3

Architecture and Construction Cluster Occupational Employment by Washington County Zip Code Place of Work



Source: JobsEQ®, Powered by ESRI. Data as of 2022Q3

Architecture and Construction Cluster Occupational Employment by Washington County Zip Code Residence

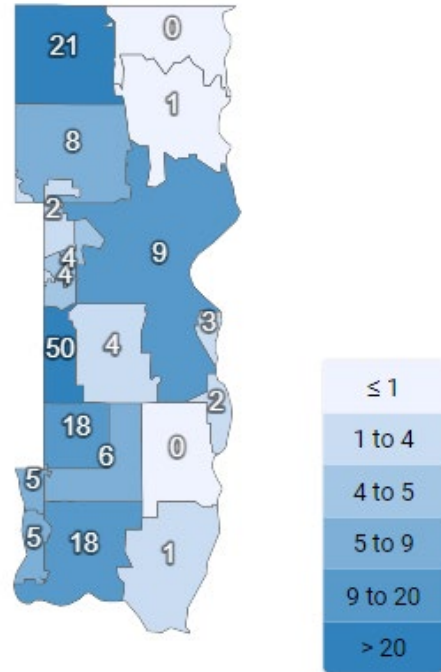


Source: JobsEQ®, Powered by ESRI. Data as of 2022Q3



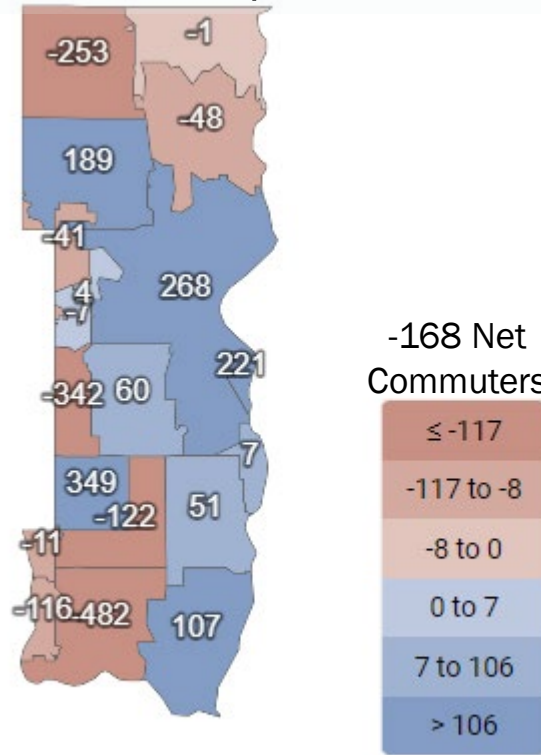
# Architecture and Construction Cluster by Location

Architecture and Construction Unemployment by Washington County Zip Code



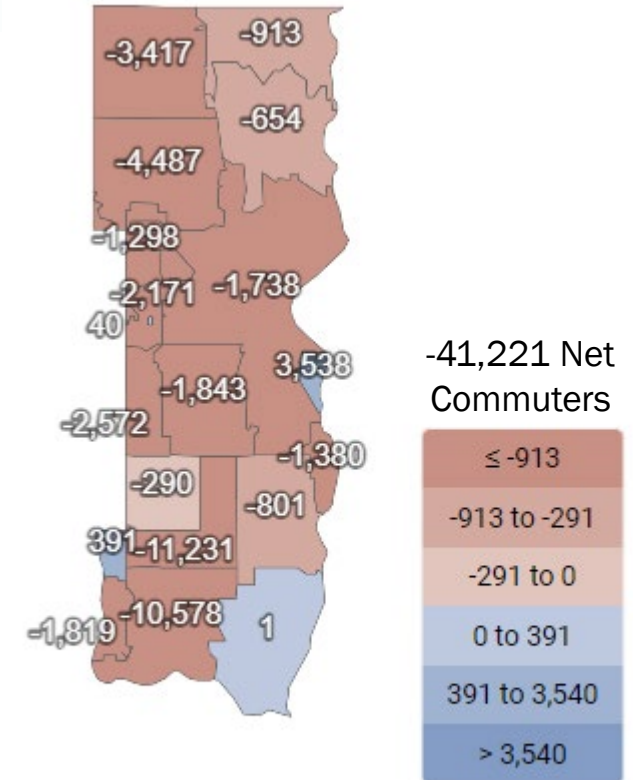
Source: JobsEQ®, Powered by ESRI. Data as of 2022Q4

Architecture and Construction Occupational Net Commuting Pattern by Washington County Zip Code



Source: JobsEQ®, Powered by ESRI. Data as of 2022Q3

All Occupational Net Commuting Pattern by Washington County Zip Code



-41,221 Net Commuters





## 04. Pathway Priorities

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# Pathway Priorities

Utilizing an Origin-Gateway-Target Model for career pathway evaluation, this report highlights the most important areas of investment in local training and education programming to prepare the talent needed for today and tomorrow's future workforce.

## Origin-Gateway-Target Model

**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

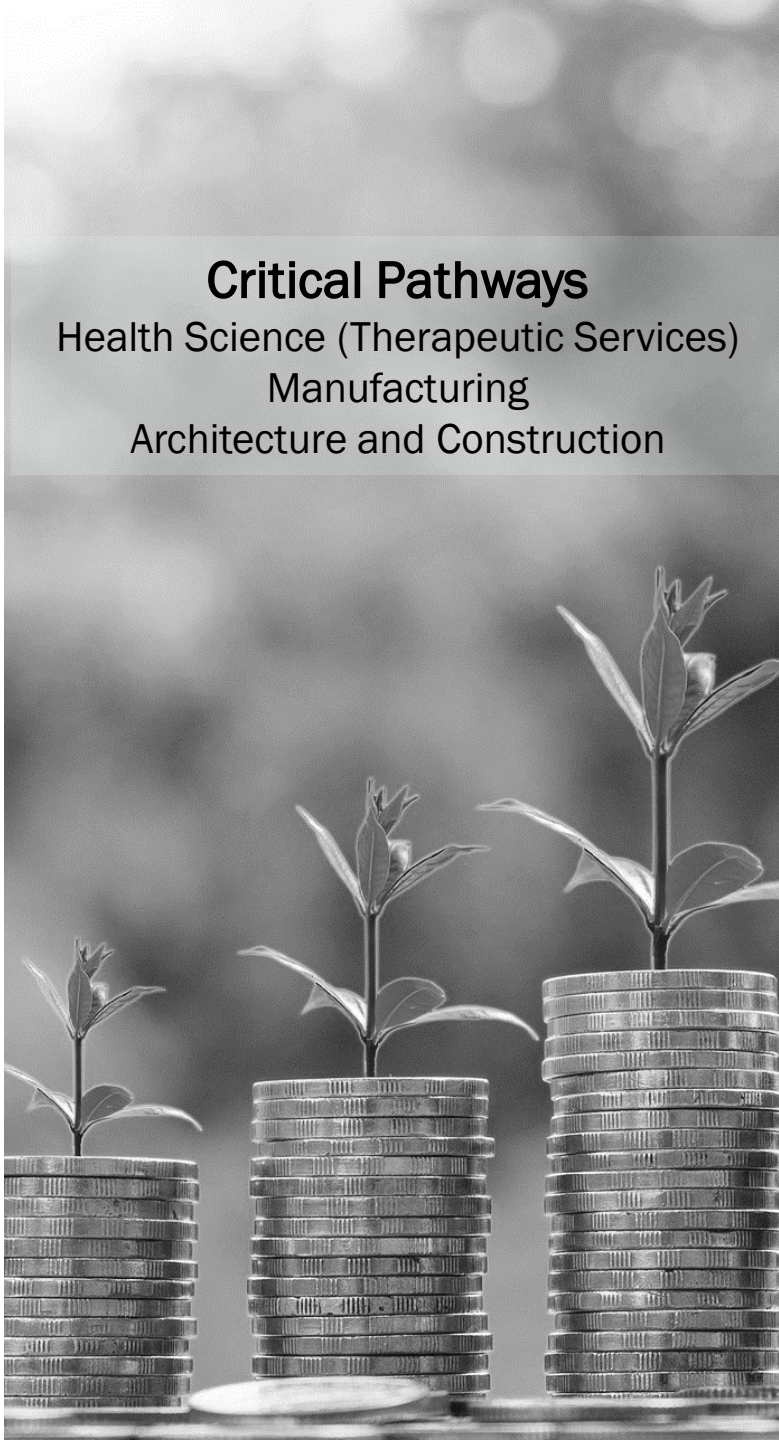
**Gateway Occupations**  
*Mid-wage* (\$42,000 – regional average)  
*Low-middle skills* (HS diploma, some OJT)  
*Sufficient demand* (3-5% unemployment and/or high volumes of current opportunities)

**Origin Occupations**  
*Low wage* (<\$42,000/year)  
*Low skill* (no credential)  
*Low demand* (over 5% unemployment, low growth, low replacement demand, and/or low job postings)

**Critical Pathways**  
Health Science (Therapeutic Services)  
Manufacturing  
Architecture and Construction

### Approach

- Classify all occupations in the critical career clusters into three tiers: Origin, Gateway, and Target occupations
- Analyze all occupations in the model by wage, skill-level, and demand
- Evaluate the prominent career pathways for development and investment for equitable economic growth, with attention to average wages and trends in job posting requirements



# An Origin-Gateway-Target Model for Health Science (Therapeutic Services)

Washington County, 2022Q3

**Target Occupations** (all HW, HD, HS)  
Registered Nurses (OG, AG)  
Medical and Health Services Managers (OG, AG)  
Pharmacists (OG, AG)  
Nurse Practitioners (OG, AG)  
Physical Therapists (OG, AG)

## Gateway Occupations

Medical Assistants (HS, HD, OG, AG)  
Licensed Practical Nurses (HS, HD, OG, AG)  
Dental Assistants (HS, HD, OG)  
Medical Secretaries & Administrative Assistants (HD, OG)  
Dental Hygienists (HS, HD, OG)

## Origin Occupations

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

# Health Science Cluster Wages

	SOC	Occupation	County Empl	Mean	Entry Level	Experienced	10%	25%	50% (Median)	75%	90%	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
Target	29-1141	Registered Nurses	1,439	\$85,300	\$66,500	\$94,800	\$61,400	\$74,600	\$78,700	\$98,500	\$99,500	BA	None	None
	11-9111	Medical and Health Services Managers	248	\$111,500	\$69,800	\$132,300	\$66,700	\$78,200	\$97,700	\$124,200	\$158,100	BA	Less than 5 years	None
	29-1051	Pharmacists	207	\$127,600	\$99,700	\$141,600	\$82,100	\$126,000	\$130,200	\$151,300	\$164,100	PhD	None	None
	29-1171	Nurse Practitioners	171	\$124,200	\$86,300	\$143,200	\$79,200	\$101,400	\$126,100	\$129,900	\$160,200	MA	None	None
	29-1123	Physical Therapists	150	\$86,300	\$75,900	\$91,400	\$75,300	\$77,300	\$79,500	\$98,600	\$100,500	PhD	None	None
	29-1229	Physicians, All Other	140	\$264,500	\$87,500	\$353,000	\$73,500	\$115,100	\$235,600	\$287,000	\$349,400	PhD	None	Residency
Gateway	31-9092	Medical Assistants	449	\$45,400	\$37,500	\$49,400	\$37,800	\$38,700	\$47,600	\$48,300	\$48,500	Certificate	None	None
	29-2061	Licensed Practical and Licensed Vocational Nurses	371	\$52,400	\$46,700	\$55,300	\$46,700	\$47,100	\$49,300	\$59,000	\$60,400	AS	None	None
	31-9091	Dental Assistants	320	\$55,700	\$47,300	\$60,000	\$48,100	\$48,400	\$60,600	\$61,100	\$61,900	Certificate	None	None
	43-6013	Medical Secretaries and Administrative Assistants	546	\$45,000	\$36,800	\$49,100	\$37,200	\$37,900	\$46,900	\$48,000	\$58,700	HS/GED	None	Mod-term OJT
Origin	29-1292	Dental Hygienists	244	\$81,800	\$77,800	\$83,800	\$77,800	\$78,000	\$78,700	\$82,600	\$98,400	AS	None	None
	31-1121	Home Health Aides	664	\$30,500	\$26,300	\$32,600	\$24,400	\$29,000	\$29,400	\$30,800	\$36,400	HS/GED	None	Short-term OJT
	31-1131	Nursing Assistants	597	\$39,000	\$33,200	\$41,800	\$30,900	\$36,800	\$37,900	\$43,100	\$47,400	Certificate	None	None
	29-2052	Pharmacy Technicians	291	\$43,800	\$33,400	\$49,000	\$31,400	\$37,500	\$45,900	\$47,800	\$58,500	HS/GED	None	Mod-term OJT
	31-9096	Veterinary Assistants and Laboratory Animal Caretakers	113	\$37,000	\$29,400	\$40,700	\$29,400	\$30,700	\$37,500	\$38,400	\$47,900	HS/GED	None	Short-term OJT
	29-2081	Opticians, Dispensing	86	\$44,400	\$34,700	\$49,200	\$33,500	\$38,100	\$46,200	\$46,700	\$58,400	HS/GED	None	Long-term OJT

Source: Chmura JobsEQ 2022Q3 Dataset. Names of Industry NAICS or Occupation SOC may be abbreviated. Wage thresholds for Origin and Gateway Occupations adjusted moderately for this pathway (Opticians and Pharmacy Technicians have average wages above the \$42,500 threshold into Gateway careers but are shown as Origin Occupations as they typically do not require a credential or experience.

# Health Science Cluster Job Vacancies

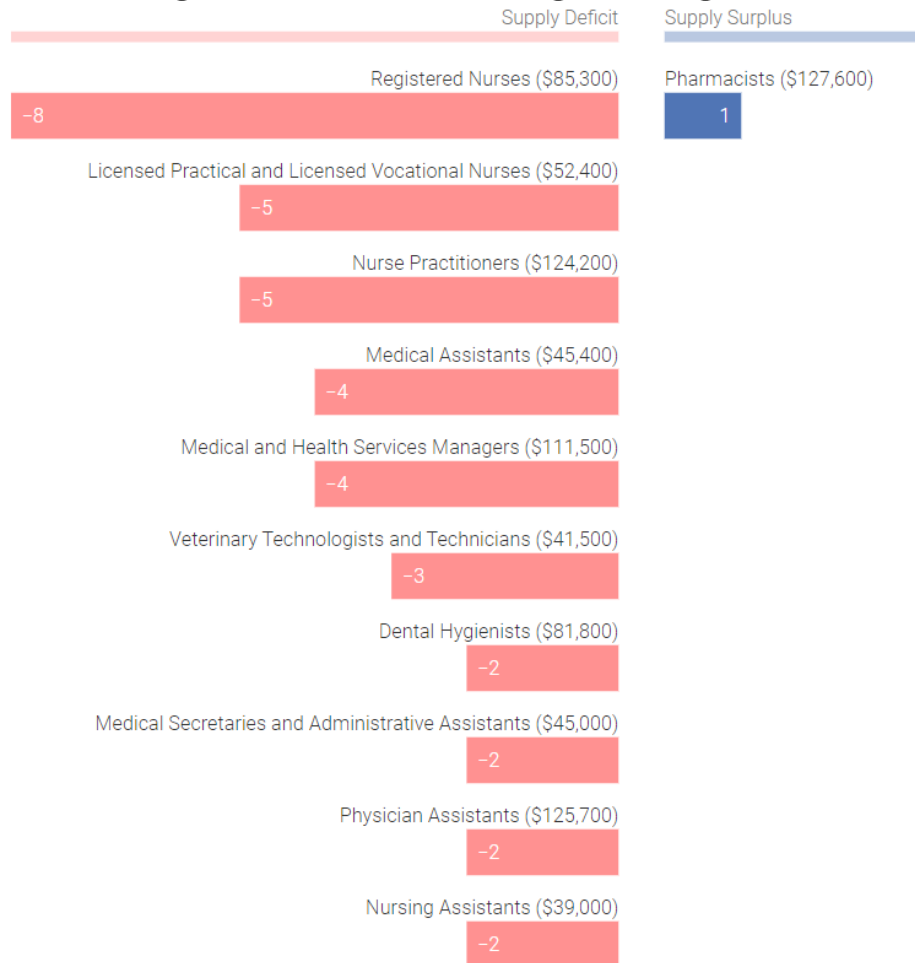
Statewide and MSP 7-County Metro Regional Job Vacancy Estimates, 2021Q4

SOC	Occupation	Minnesota		MSP Metro					
		Job Vacancies	Job Vacancy Rate	Job Vacancies	Job Vacancy Rate	Part Time	Temp/Seasonal	Requiring Postsecondary	Requiring Certificate or License
<b>29-0000</b>	<b>Healthcare Practitioners and Technical Occupations</b>	<b>19,758</b>	<b>10.5%</b>	<b>12,178</b>	<b>11.8%</b>	<b>30%</b>	<b>2%</b>	<b>87%</b>	<b>71%</b>
29-1000	Healthcare Diagnosing or Treating Practitioners	11,941	9.5%	7,390		27%	2%	98%	78%
29-2000	Health Technologists and Technicians	7,691	13.0%	4,719		36%	3%	69%	61%
29-9000	Other Healthcare Practitioners and Technical Occupations	125	4.4%	67		39%	2%	91%	91%
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>18,212</b>	<b>11.3%</b>	<b>11,428</b>	<b>11.9%</b>	<b>41%</b>	<b>5%</b>	<b>31%</b>	<b>57%</b>
31-1100	Home Health and Personal Care Aides; Nursing Assistants and Orderlies	15,110		9,044			5%	21%	55%
31-1121	Home Health Aides	1,829		1,411		47%	10%	16%	23%
31-1122	Personal Care Aides	7,281		4,044		56%	2%	3%	45%
31-1131	Nursing Assistants	5,878	23.2%	3,537	31.2%	32%	6%	45%	80%
31-1132	Orderlies	51	15.1%	32	15.1%	50%	0%	0%	4%
31-1133	Psychiatric Aides	69	7.7%	18	3.4%	77%	6%	0%	23%
31-2000	Occupational Therapy and Physical Therapist Assistants	803	44.3%	689		5%	5%	100%	98%
31-9000	Other Healthcare Support Occupations	2,299	9.6%	1,693		34%	5%	53%	54%
	<b>Total – All Occupations</b>	<b>214,071</b>	<b>8.2%</b>	<b>126,916</b>	<b>7.9%</b>	<b>27%</b>	<b>5%</b>	<b>38%</b>	<b>33%</b>

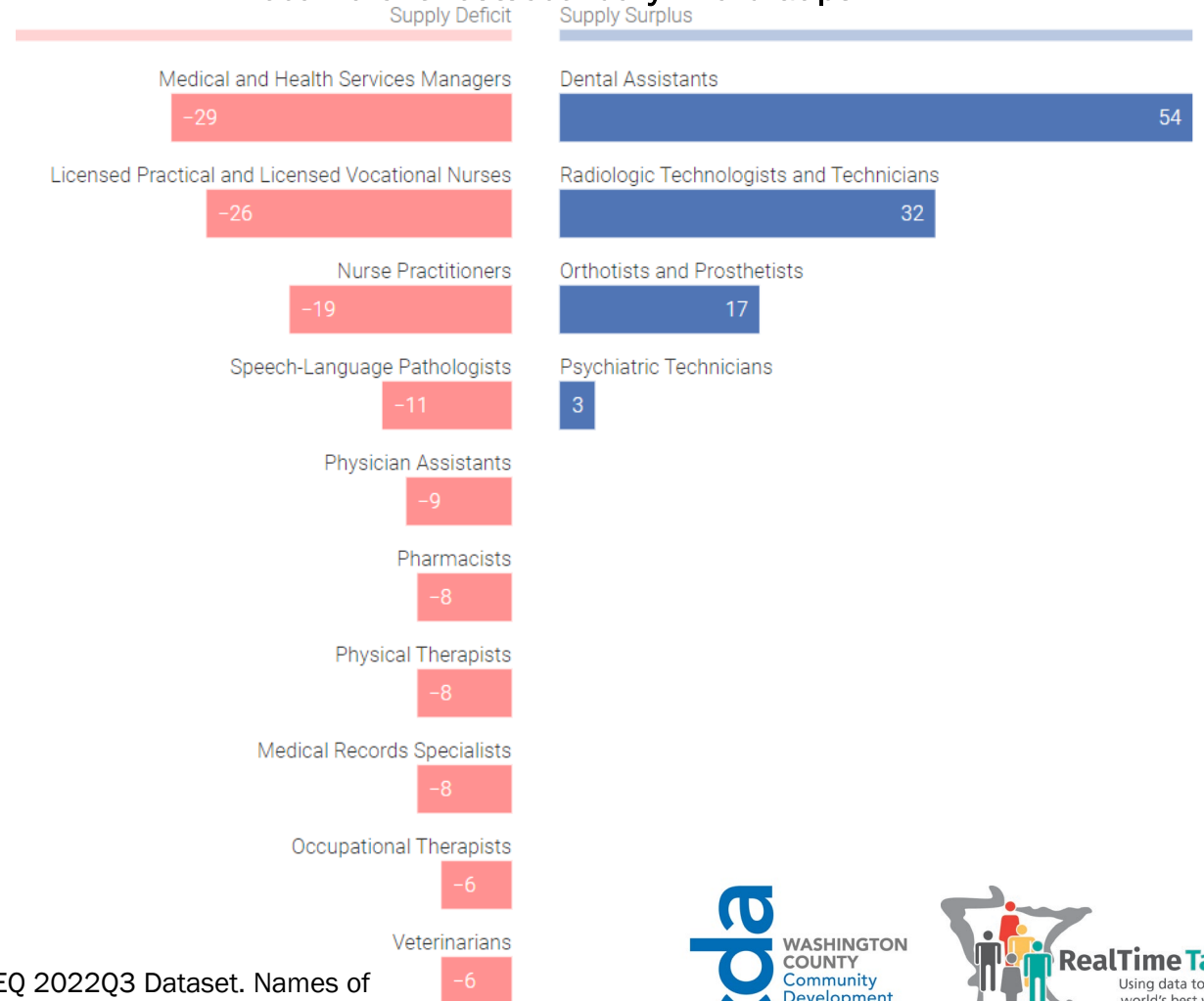


# Health Science Shortages

Average Annual Talent Shortages through 2027



Local Talent Postsecondary Award Gaps



# Health Science Job Posting Trends

7,375  
Unique Postings  
23,774 Total Postings



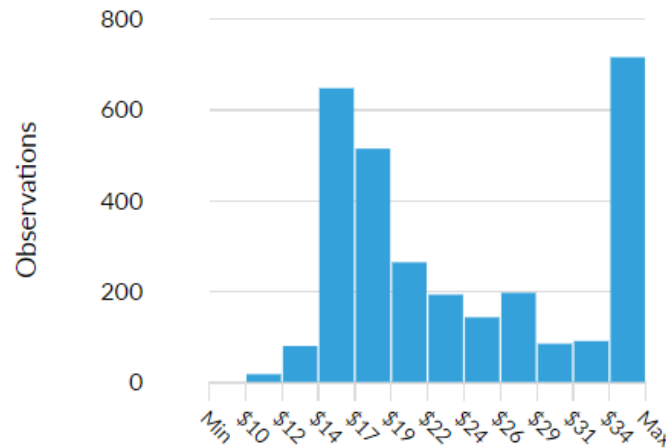
27 days  
Median Posting Duration  
Regional Average: 30 days

## Top Occupations Advertised

- Registered Nurse
- Caregiver/Personal Care Aide
- Home Health Aide
- LPN
- Nursing Assistant
- Pharmacy Technician
- Laboratory Technician
- Nursing Manager/Supervisor
- Medical Assistant
- Physician

## Median Advertised Salary in 2022

\$21.23/hr  
Median Advertised Salary



## Two Year Wage Trends





# Health Science Job Posting Trends

1,646

Avg. Monthly Postings (Jan 2022 - Dec 2022)

683

Avg. Monthly Hires (Jan 2022 - Dec 2022)

## Top Employers Posting

Lakeview Hospital  
 CareInHomes  
 Fairview Health Services  
 Sevita  
 Presbyterian Homes

Allina Health  
 Regions Hospital  
 Interim HealthCare  
 Good Samaritan Society  
 Stillwater Medical

Comparison of Monthly Job Postings Volume to Hires

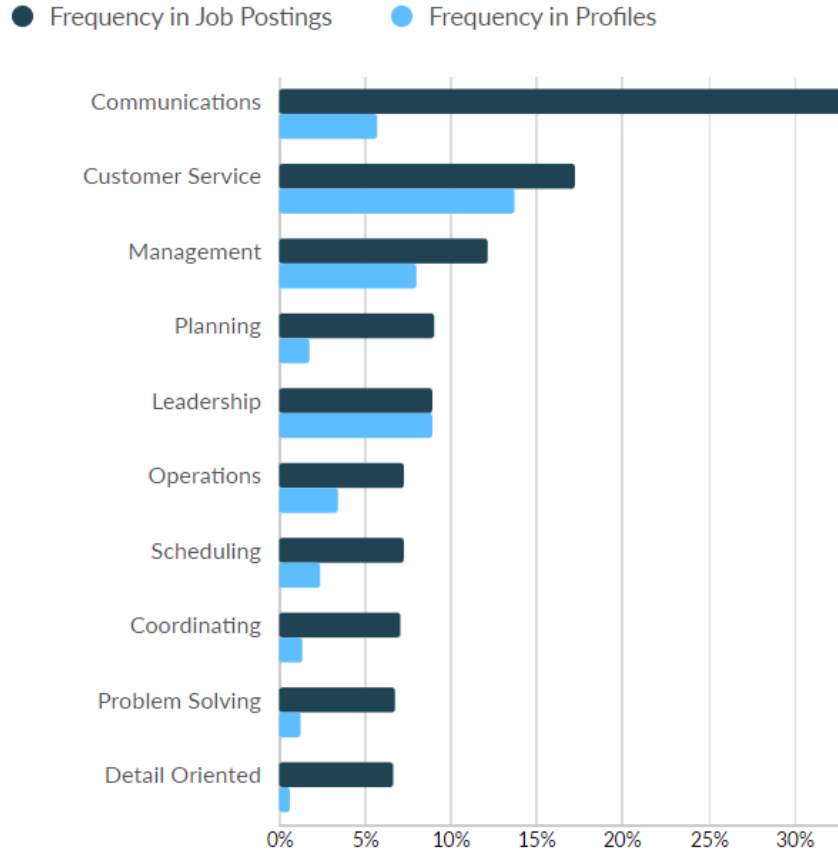


+20.7%  
 in posting volumes  
 between 2021 and 2022

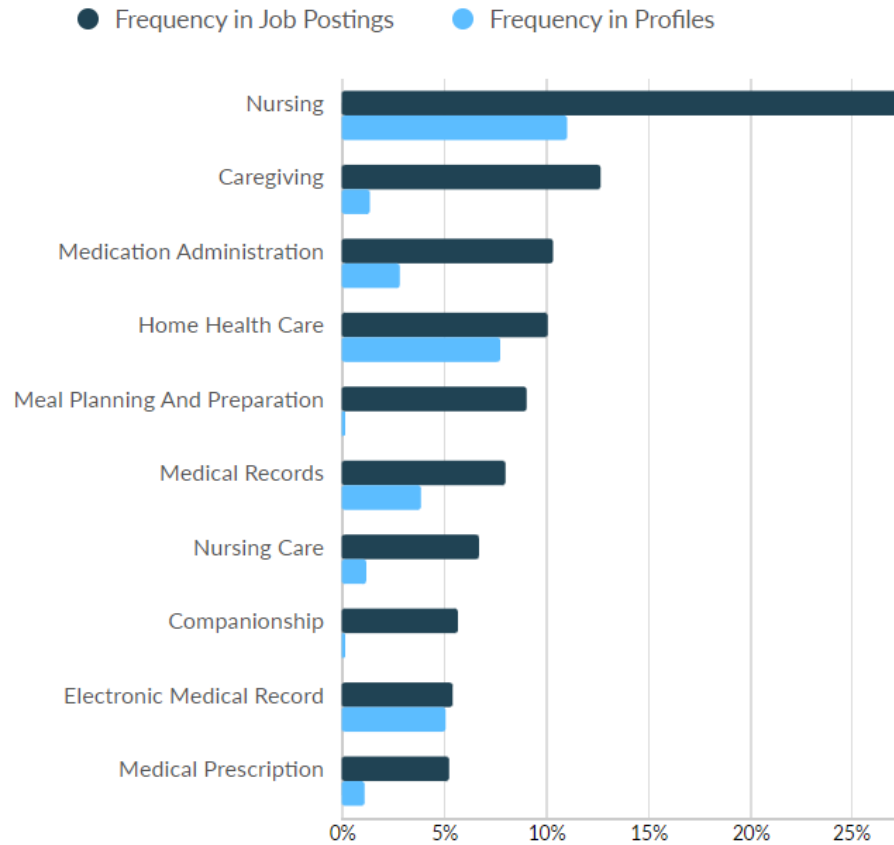
1 hire  
 For every 2 unique job postings

# Health Science Skill Demand

Common Skills in Demand



Specialized Skills in Demand



# An Origin-Gateway-Target Model for Manufacturing

Washington County, 2022Q3

## Target Occupations (all HW, HD)

Supervisors of Production and Operating Workers (OG, AG)  
Supervisors of Mechanics, Installers, and Repairers (OG, AG)  
Purchasing Agents, Except Wholesale, Retail (HS, OG, AG)  
Petroleum Pump System Operators  
Power Plant Operators (OG)

## Gateway Occupations

Maintenance & Repair Workers, General (OG, AG)  
Woodworking Machine Setters, Operators, and Tenders, Except Sawing (OG, AG)  
Inspectors, Testers, Sorters, Samplers, and Weighers  
Machinists (OG, AG)  
Industrial Machinery Mechanics (HW, OG, AG)

## Origin Occupations

Team Assemblers  
Production Workers, Other (OG)  
Assemblers and Fabricators, Other  
Packaging & Filling Machine Operators & Tenders (OG)  
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

# Manufacturing Cluster Wages

	SOC	Occupation	County Empl	Mean	Entry Level	Experienced	10%	25%	50% (Median)	75%	90%	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
Target	51-1011	Supervisors of Production and Operating Workers	507	\$72,000	\$51,900	\$82,100	\$48,600	\$58,100	\$65,100	\$80,600	\$100,600	HS/GED	Less than 5 years	None
	49-1011	Supervisors of Mechanics, Installers, and Repairers	256	\$80,100	\$55,400	\$92,400	\$51,500	\$63,900	\$78,200	\$96,400	\$103,300	HS/GED	Less than 5 years	None
	13-1023	Purchasing Agents	164	\$77,400	\$51,900	\$90,100	\$48,100	\$60,300	\$75,100	\$95,300	\$118,600	BA	None	Mod-term OJT
	51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	41	\$93,400	\$78,100	\$101,100	\$75,600	\$84,100	\$95,700	\$101,400	\$103,600	HS/GED	None	Mod-term OJT
	51-8013	Power Plant Operators	32	\$93,700	\$62,900	\$109,100	\$52,800	\$80,400	\$104,700	\$108,900	\$113,700	HS/GED	None	Mod-term OJT
Gateway	49-9071	Maintenance and Repair Workers	871	\$51,200	\$36,800	\$58,400	\$35,600	\$40,000	\$48,100	\$60,000	\$65,200	HS/GED	None	Mod-term OJT
	51-7042	Woodworking Machine Setters, Operators, and Tenders	552	\$44,800	\$35,800	\$49,300	\$34,700	\$39,000	\$46,500	\$48,500	\$51,600	HS/GED	None	Mod-term OJT
	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	310	\$48,100	\$33,900	\$55,100	\$31,500	\$38,700	\$48,300	\$53,700	\$61,400	HS/GED	None	Mod-term OJT
	51-4041	Machinists	243	\$55,400	\$40,700	\$62,800	\$38,900	\$44,800	\$52,600	\$62,500	\$76,600	HS/GED	None	Long-term OJT
	49-9041	Industrial Machinery Mechanics	219	\$66,800	\$50,900	\$74,800	\$48,700	\$55,600	\$63,100	\$77,500	\$81,400	HS/GED	None	Long-term OJT
	51-2092	Team Assemblers	1,228	\$39,900	\$29,800	\$45,000	\$29,700	\$31,300	\$38,100	\$46,500	\$50,100	HS/GED	None	Mod-term OJT
	51-9199	Production Workers, Other	199	\$41,100	\$29,500	\$46,900	\$29,800	\$30,400	\$37,500	\$47,000	\$58,500	HS/GED	None	Mod-term OJT
Origin	51-2099	Assemblers and Fabricators, Other	197	\$39,600	\$29,700	\$44,600	\$29,600	\$31,200	\$37,900	\$46,200	\$49,700	HS/GED	None	Mod-term OJT
	51-9111	Packaging and Filling Machine Operators and Tenders	196	\$40,100	\$30,500	\$44,900	\$30,200	\$32,300	\$39,300	\$47,000	\$49,400	HS/GED	None	Mod-term OJT
	51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	156	\$42,200	\$31,000	\$47,700	\$30,600	\$32,700	\$38,500	\$47,400	\$60,400	HS/GED	None	Mod-term OJT

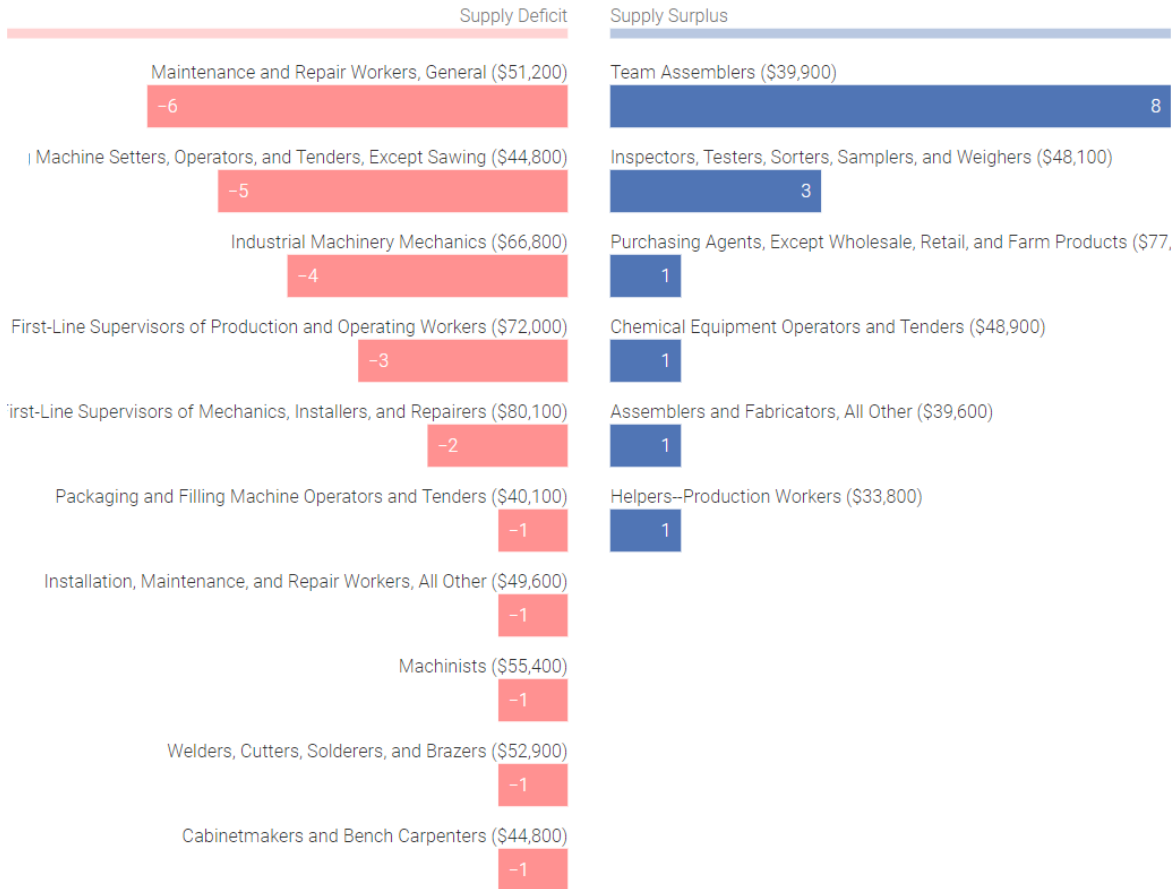
# Manufacturing Cluster Job Vacancies

Statewide and MSP 7-County Metro Regional Job Vacancy Estimates, 2021Q4

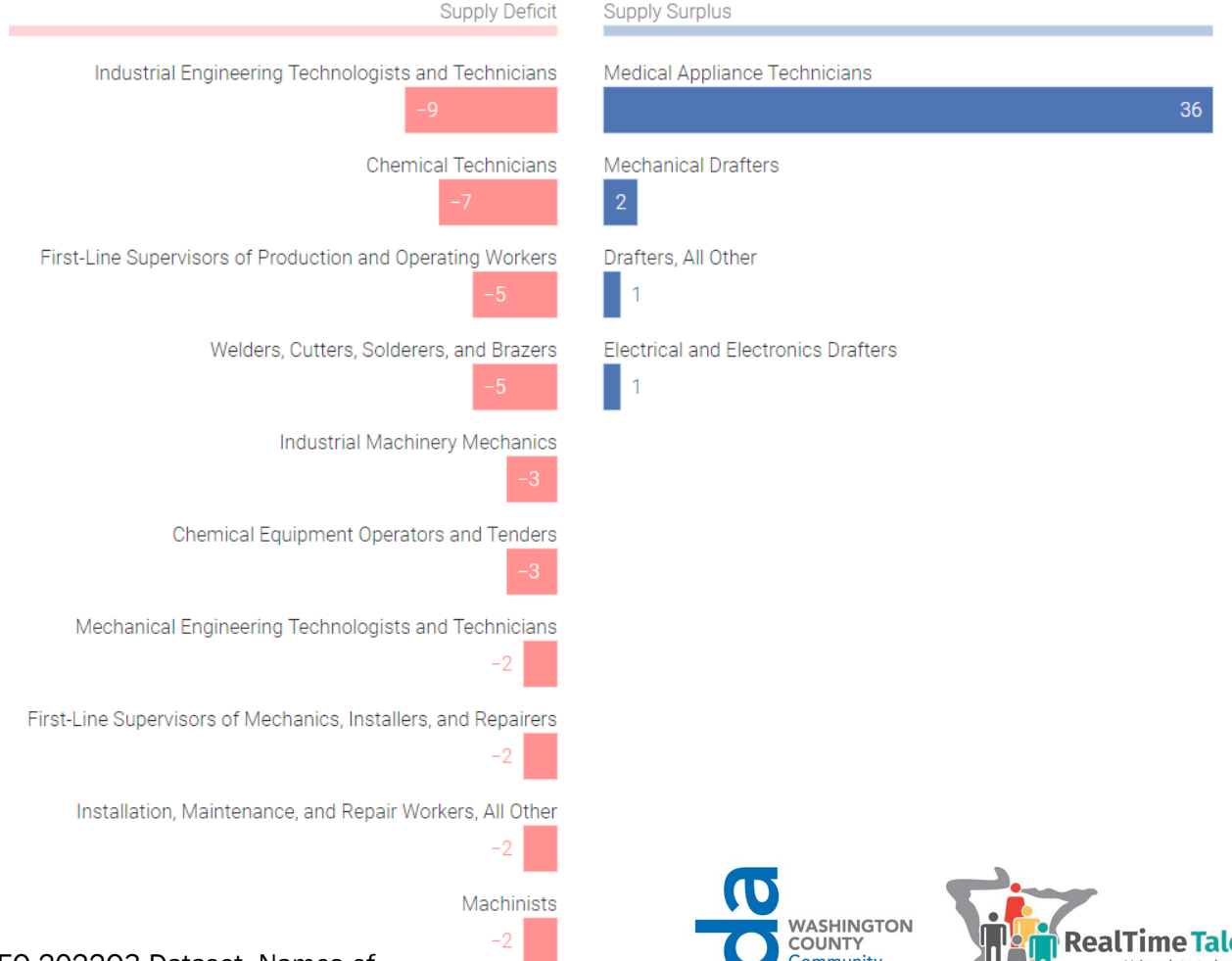
SOC	Occupation	Minnesota		MSP Metro					
		Job Vacancies	Job Vacancy Rate	Job Vacancies	Job Vacancy Rate	Part Time	Temp/Seasonal	Req Post secondary	Req Cert/License
<b>17-0000</b>	<b>Architecture and Engineering Occupations</b>	<b>3,912</b>	<b>7.5%</b>	<b>2,523</b>	<b>7%</b>	<b>3%</b>	<b>2%</b>	<b>91%</b>	<b>56%</b>
17-2000	Engineers	2,779	8.4%	1,828		3%	2%	99%	60%
17-3000	Drafters, Engineering Technicians, and Mapping Tec	1,034	7.1%	609		2%	0%	66%	39%
<b>49-0000</b>	<b>Installation, Maintenance, and Repair Occupations</b>	<b>6,925</b>	<b>7.2%</b>	<b>3,298</b>	<b>6.7%</b>	<b>6%</b>	<b>1%</b>	<b>23%</b>	<b>73%</b>
49-1000	Supervisors of Installation, Maintenance, and Repair Workers	476	6.7%	78		8%	0%	32%	59%
49-2000	Electrical and Electronic Equipment Mechanics, Installers	531	7.3%	211		0%	4%	29%	81%
49-9000	Other Installation, Maintenance, and Repair Occupa	2,942	6.1%	1,475		7%	2%	34%	54%
<b>51-0000</b>	<b>Production Occupations</b>	<b>10,989</b>	<b>5.5%</b>	<b>5,041</b>	<b>4.9%</b>	<b>11%</b>	<b>0%</b>	<b>18%</b>	<b>7%</b>
51-1000	Supervisors of Production Workers	344	2.8%	145		2%	1%	41%	13%
51-2000	Assemblers and Fabricators	2,181	4.8%	1,121		1%	1%	51%	1%
51-3000	Food Processing Workers	1,197	5.3%	506		8%	0%	2%	3%
51-4000	Metal Workers and Plastic Workers	2,388	6%	936		6%	0%	13%	12%
51-5100	Printing Workers	453		276		0%	0%	0%	0%
51-6000	Textile, Apparel, and Furnishings Workers	256	4%	162		58%	0%	4%	0%
51-7000	Woodworkers	625	12.2%	503		0%	0%	0%	0%
51-8000	Plant and System Operators	514	8.4%	25		10%	10%	32%	81%
51-9000	Other Production Occupations	3,028	5.8%	1,365		24%	0%	7%	10%
	<b>Total – All Occupations</b>	<b>214,071</b>	<b>8.2%</b>	<b>126,916</b>	<b>7.9%</b>	<b>27%</b>	<b>5%</b>	<b>38%</b>	<b>33%</b>

# Manufacturing Shortages

## Average Annual Talent Shortages through 2027



## Local Talent Postsecondary Award Gaps



# Manufacturing Job Posting Trends

4,099  
Unique Postings  
11,485 Total Postings



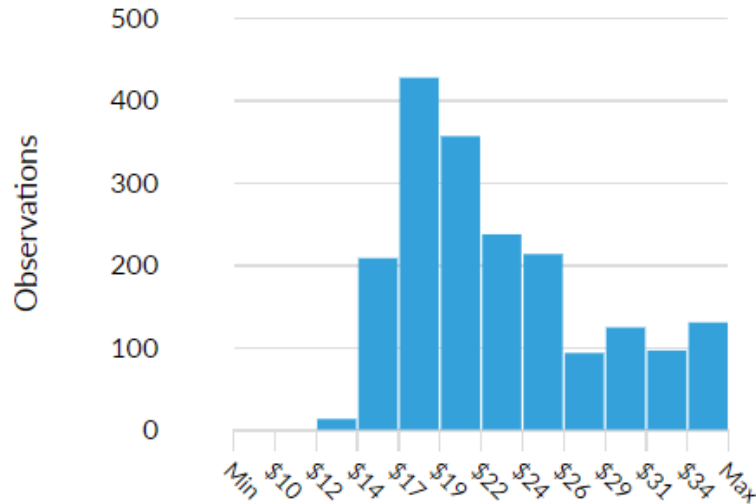
29 days  
Median Posting Duration  
Regional Average: 30 days

## Top Occupations Advertised

- Maintenance and Repair Workers
- Production Workers
- Industrial Engineering Techs
- Misc. Assemblers and Fabricators
- Inspectors, Testers, Sorters, Weighers
- Helpers—Production Workers
- Production Supervisors
- Mechanics Supervisors
- Production and Planning Clerks
- Aircraft Assemblers

## Median Advertised Salary in 2022

\$20.98/hr  
Median Advertised Salary



## Two Year Wage Trends





# Manufacturing Job Posting Trends

931

Avg. Monthly Postings (Jan 2022 - Dec 2022)

406

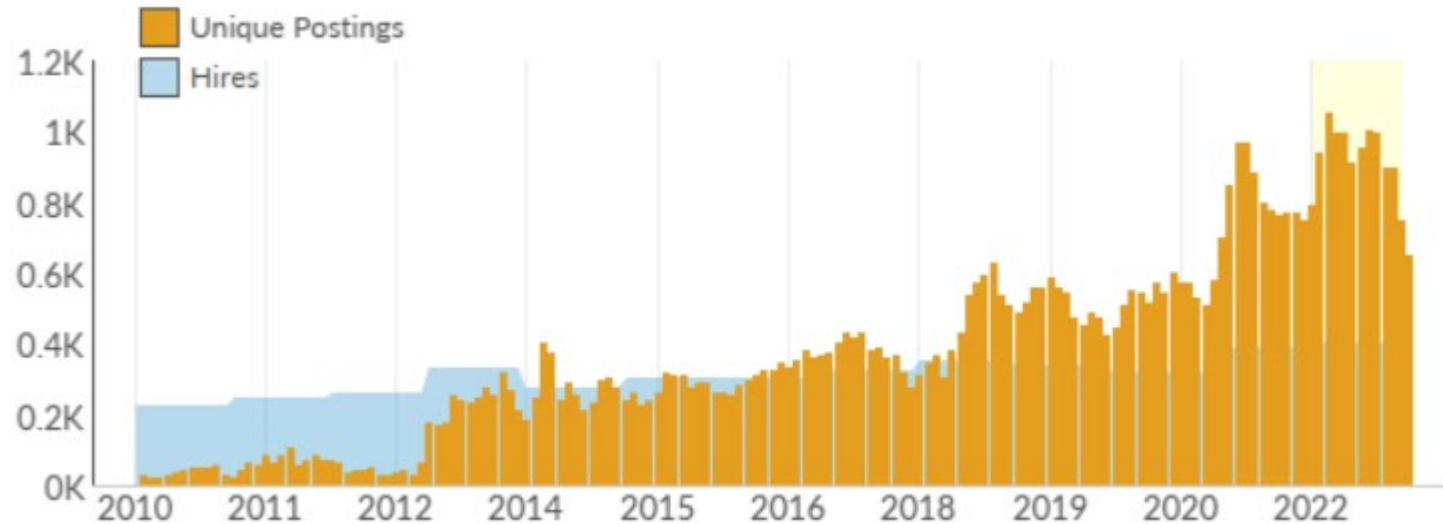
Avg. Monthly Hires (Jan 2022 - Dec 2022)

## Top Employers Posting

Andersen Windows  
Aerotek  
Up North Plastics  
Randstad  
3M

Supermom's Bakery  
Award Staffing  
JI Schwieters  
Adecco  
Lube-Tech

## Comparison of Monthly Job Postings Volume to Hires

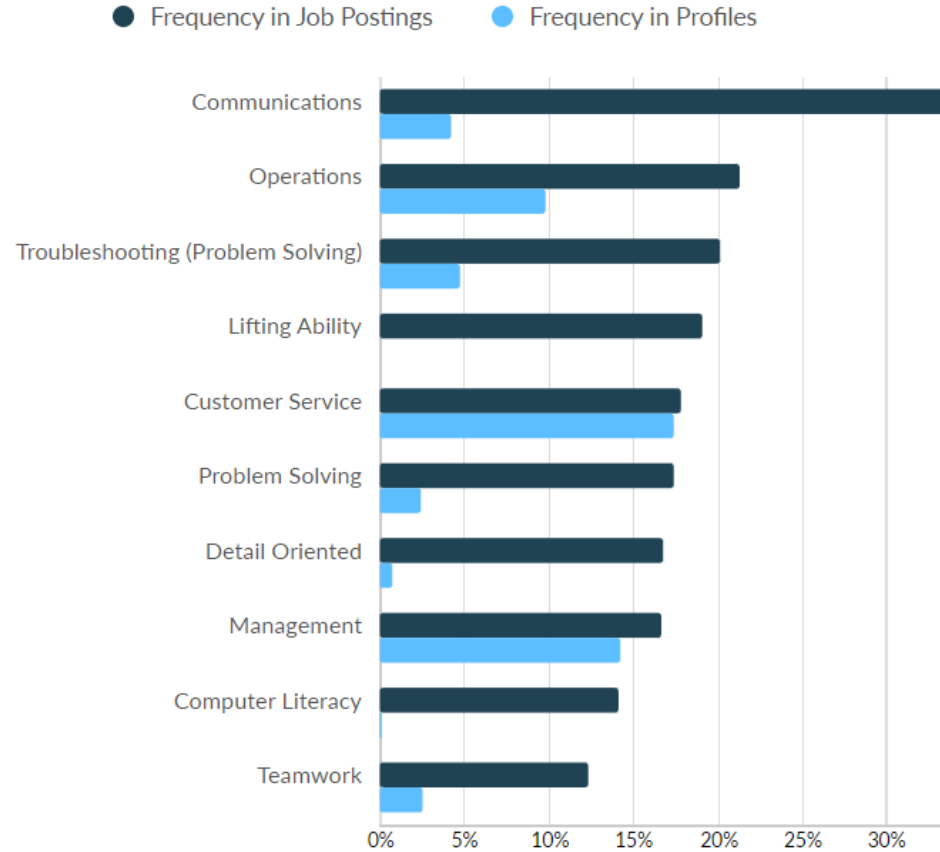


-6.0%  
in posting volumes  
between 2021 and 2022

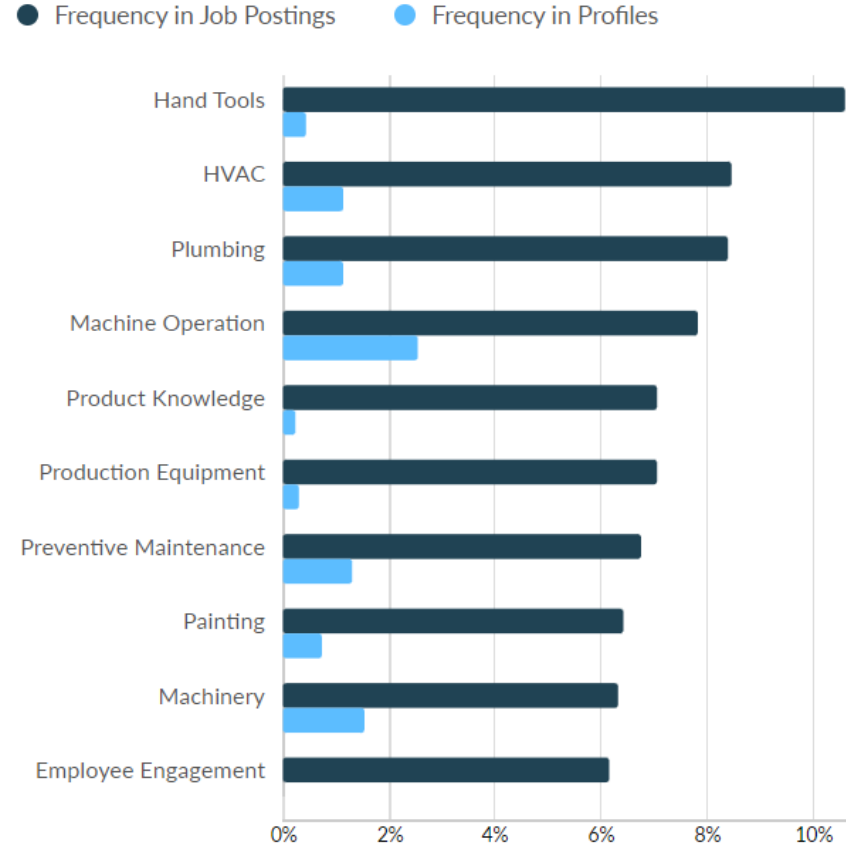
1 hire  
for every 2 unique job postings

# Manufacturing Skill Demand

## Common Skills in Demand



## Specialized Skills in Demand



# An Origin-Gateway-Target Model for Architecture and Construction

Washington County, 2022Q3

## Target Occupations (all HW, HD)

Carpenters (AG)

Supervisors of Construction Trades Workers (OG, AG)

Construction Managers (HS, AG)

Operating Engineers (OG)

Plumbers, Pipefitters, and Steamfitters (OG, AG)

## Gateway Occupations (all HD)

Construction Laborers

Painters, Construction and Maintenance (OG)

Supervisors of Landscaping, Lawn Service, and Groundskeepers (OG)

Highway Maintenance Workers (OG)

Insulation Workers, Floor, Ceiling, and Wall

## Origin Occupations

Landscaping and Groundskeeping Workers (HD)

Helpers—Installation, Maintenance, and Repair Workers (HD)

Helpers—Carpenters (HD)

Manufactured Building and Mobile Home Installers

Helpers—Construction Trades, All Other (HD)

# Architecture and Construction Cluster

## Wages

	SOC	Occupation	County Empl	Mean	Entry Level	Experienced	10%	25%	50% (Median)	75%	90%	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
Target	47-2031	Carpenters	1,026	\$61,200	\$42,200	\$70,700	\$39,200	\$48,800	\$61,500	\$76,300	\$78,000	HS/GED	None	Apprenticeship
	47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	414	\$89,500	\$68,000	\$100,200	\$62,400	\$77,100	\$82,800	\$101,900	\$117,700	HS/GED	5 years or more	None
	11-9021	Construction Managers	262	\$108,800	\$68,900	\$128,800	\$64,100	\$79,900	\$100,100	\$126,500	\$165,400	BA	None	Mod-term OJT
	47-2073	Operating Engineers and Other Construction Equipment Operators	262	\$74,400	\$54,000	\$84,600	\$50,300	\$62,600	\$78,600	\$81,200	\$96,100	HS/GED	None	Mod-term OJT
	47-2152	Plumbers, Pipefitters, and Steamfitters	254	\$83,800	\$53,500	\$99,000	\$49,700	\$62,900	\$85,000	\$101,000	\$103,400	HS/GED	None	Apprenticeship
Gateway	47-2061	Construction Laborers	885	\$53,400	\$33,400	\$63,400	\$30,400	\$38,600	\$48,300	\$66,800	\$78,400	None	None	Short-term OJT
	47-2141	Painters, Construction and Maintenance	191	\$55,500	\$36,900	\$64,800	\$36,400	\$39,700	\$50,100	\$65,000	\$77,200	None	None	Mod-term OJT
	37-1012	Supervisors of Landscaping, Lawn Service, and Groundskeepers	153	\$56,400	\$40,800	\$64,300	\$40,000	\$44,200	\$55,600	\$64,000	\$79,300	HS/GED	Less than 5 years	None
	47-4051	Highway Maintenance Workers	126	\$57,500	\$46,600	\$62,900	\$45,300	\$50,300	\$60,200	\$61,500	\$76,000	HS/GED	None	Mod-term OJT
	47-2131	Insulation Workers, Floor, Ceiling	74	\$53,500	\$40,100	\$60,100	\$39,000	\$42,900	\$48,100	\$59,100	\$75,100	None	None	Short-term OJT
Origin	37-3011	Landscaping and Groundskeeping Workers	923	\$41,800	\$30,600	\$47,400	\$30,600	\$32,100	\$39,400	\$49,000	\$60,300	None	None	Short-term OJT
	49-9098	Helpers--Installation, Maintenance, and Repair Workers	37	\$36,100	\$26,700	\$40,800	\$25,100	\$29,300	\$34,500	\$37,900	\$47,000	HS/GED	None	Short-term OJT
	47-3012	Helpers--Carpenters	23	\$37,900	\$29,600	\$42,000	\$22,100	\$36,800	\$38,400	\$38,400	\$48,400	None	None	Short-term OJT
	49-9095	Manufactured Building and Mobile Home Installers	17	\$41,100	\$30,300	\$46,600	\$28,900	\$33,400	\$41,300	\$43,800	\$52,600	HS/GED	None	Short-term OJT
	47-3019	Helpers, Construction Trades, Other	16	\$38,400	\$23,200	\$46,000	\$23,400	\$23,400	\$29,900	\$52,600	\$66,500	None	None	Short-term OJT

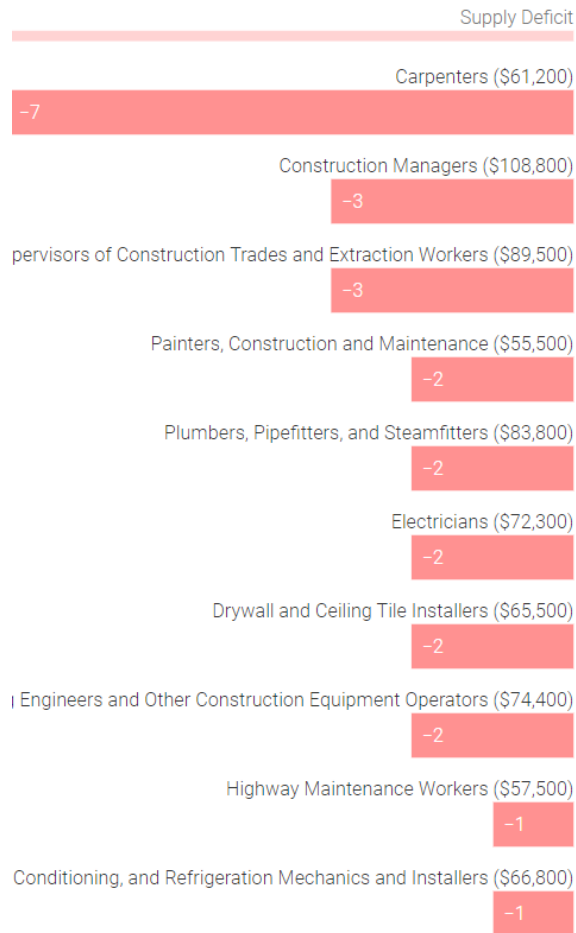
# Architecture and Construction Cluster Job Vacancies

Statewide and MSP 7-County Metro Regional Job Vacancy Estimates, 2021Q4

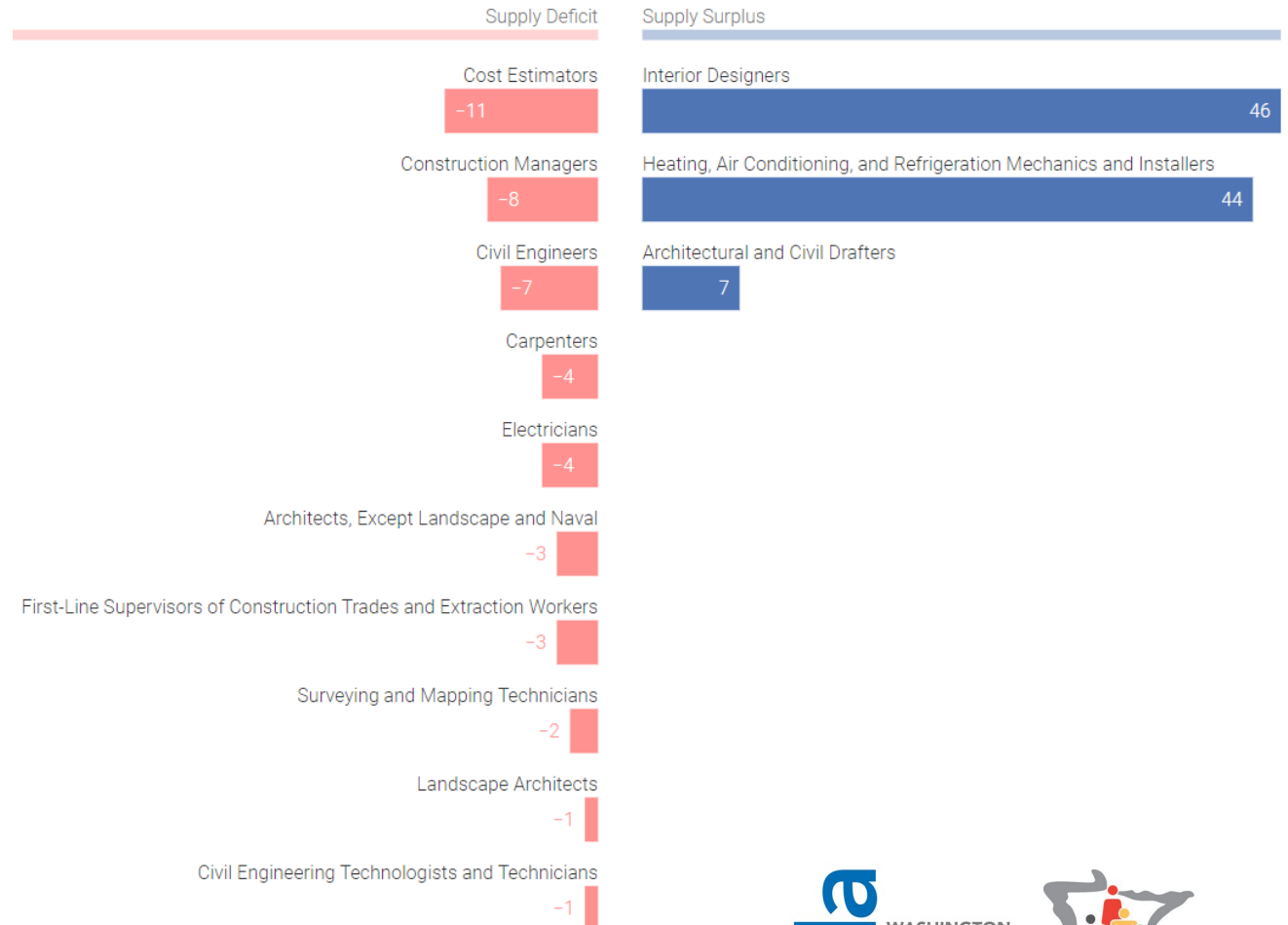
SOC	Occupation	Minnesota		MSP Metro					
		Job Vacancies	Job Vacancy Rate	Job Vacancies	Job Vacancy Rate	Part Time	Temp/Seasonal	Req Post secondary	Req Cert/License
<b>17-0000</b>	<b>Architecture and Engineering Occupations</b>	<b>3,912</b>	<b>7.5%</b>	<b>2,523</b>	<b>7%</b>	<b>3%</b>	<b>2%</b>	<b>91%</b>	<b>56%</b>
17-2000	Engineers	2,779	8.4%	1,828		3%	2%	99%	60%
17-3000	Drafters, Engineering Technicians, and Mapping Tec	1,034	7.1%	609		2%	0%	66%	39%
<b>47-0000</b>	<b>Construction and Extraction Occupations</b>	<b>4,163</b>	<b>3.9%</b>	<b>1,146</b>	<b>2.2%</b>	<b>36%</b>	<b>21%</b>	<b>8%</b>	<b>69%</b>
47-1000	Supervisors of Construction and Extraction Workers	264	3.0%	119		0%	0%	26%	84%
47-2000	Construction Trades Workers	3,468	4.5%	645		24%	3%	7%	52%
47-4000	Other Construction and Related Workers	423	4.5%	379		66%	57%	3%	93%
<b>37-0000</b>	<b>Building and Grounds Cleaning and Occupations</b>	<b>5,285</b>	<b>7.0%</b>	<b>3,405</b>	<b>8.2%</b>	<b>27%</b>	<b>14%</b>	<b>6%</b>	<b>18%</b>
37-1000	Supervisors of Building and Grounds Cleaning and Maintenance Workers	282	7.8%	132		23%	2%	5%	57%
37-2000	Building Cleaning and Pest Control Workers	4,244	7.9%	2,621		28%	7%	7%	5%
37-3000	Grounds Maintenance Workers	758	5.4%	651		25%	42%	7%	61%
	<b>Total – All Occupations</b>	<b>214,071</b>	<b>8.2%</b>	<b>126,916</b>	<b>7.9%</b>	<b>27%</b>	<b>5%</b>	<b>38%</b>	<b>33%</b>

# Architecture and Construction Shortages

Average Annual Talent Shortages through 2027



Local Talent Postsecondary Award Gaps





# Architecture and Construction Job Posting Trends

1,319  
Unique Postings  
2,996 Total Postings



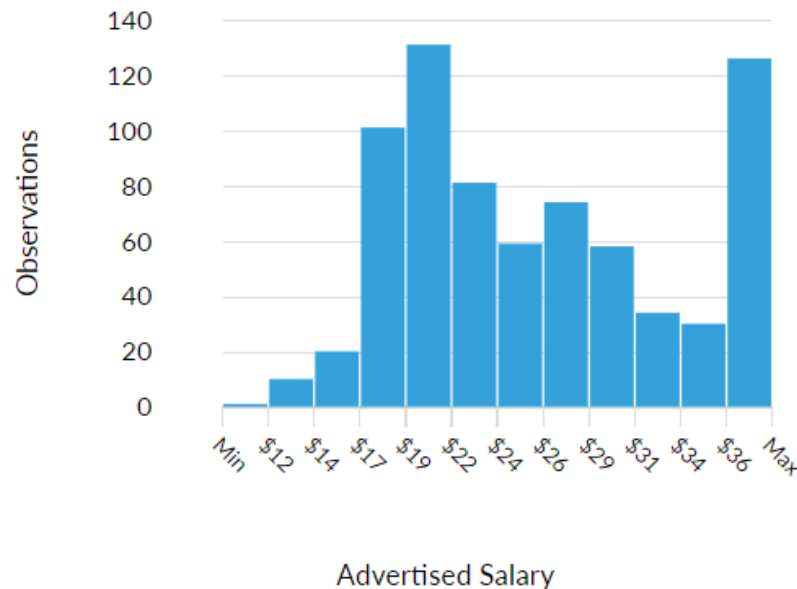
35 days  
Median Posting Duration  
Regional Average: 30 days

## Top Occupations Advertised

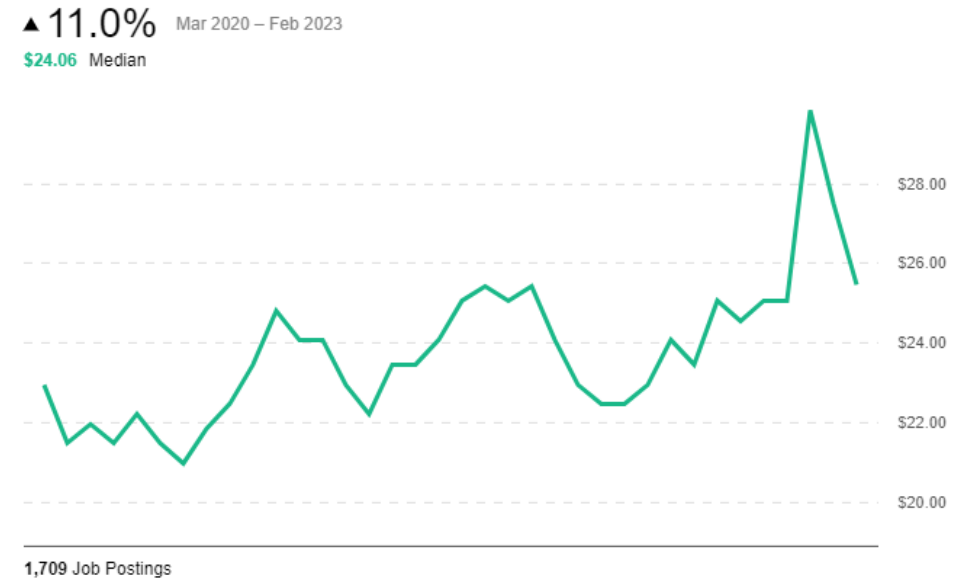
- |                       |  |
|-----------------------|--|
| Landscaping Workers   | HVAC Mechanics and Installers                                |
| Construction Laborers | Supervisors of Landscaping, Lawn Service, and Groundskeepers |
| Construction Managers | Civil Engineers  |
| Cost Estimators       | Supervisors of Construction Workers                          |
| Carpenters            | Cement Masons and Concrete Finishers                         |

## Median Advertised Salary in 2022

\$25.05/hr  
Median Advertised Salary



## Two Year Wage Trends



# Architecture and Construction Job Posting Trends

301

Avg. Monthly Postings (Jan 2022 - Dec 2022)

386

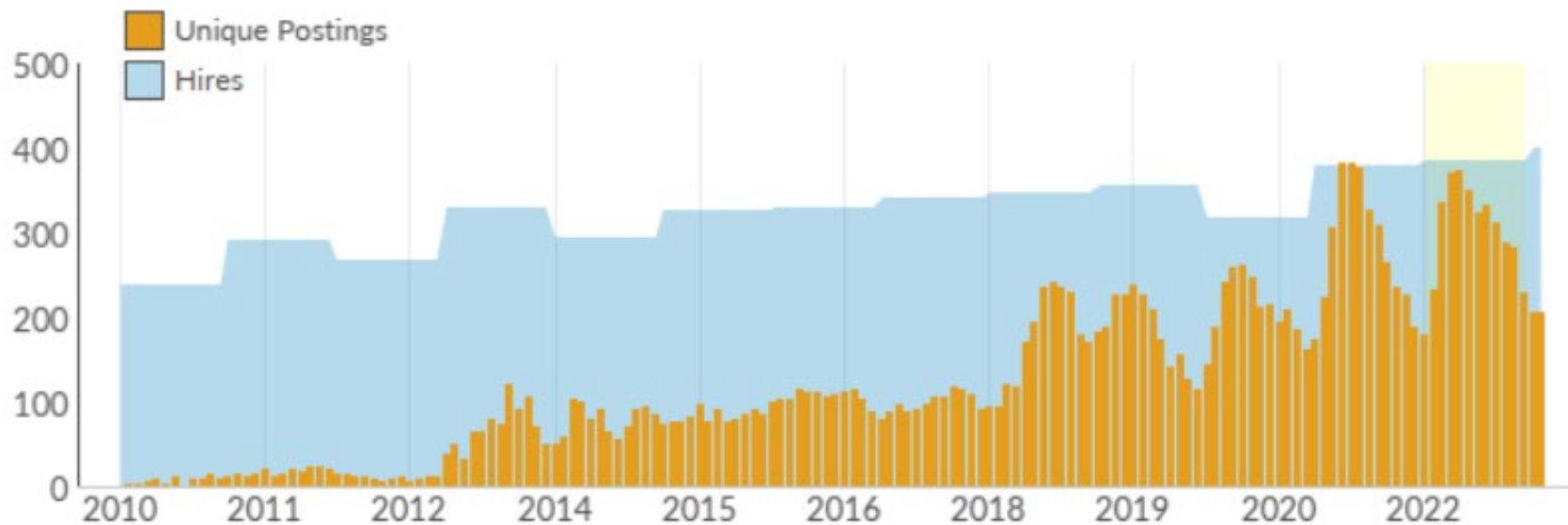
Avg. Monthly Hires (Jan 2022 - Dec 2022)

## Top Employers Posting

Norhart  
GPAC  
Horticulture Services  
Turner Construction Company  
Ryan

Rj's Property Maintenance  
Aerotek  
State of Minnesota  
Tradesmen International  
Bolton & Menk

Comparison of Monthly Job Postings Volume to Hires

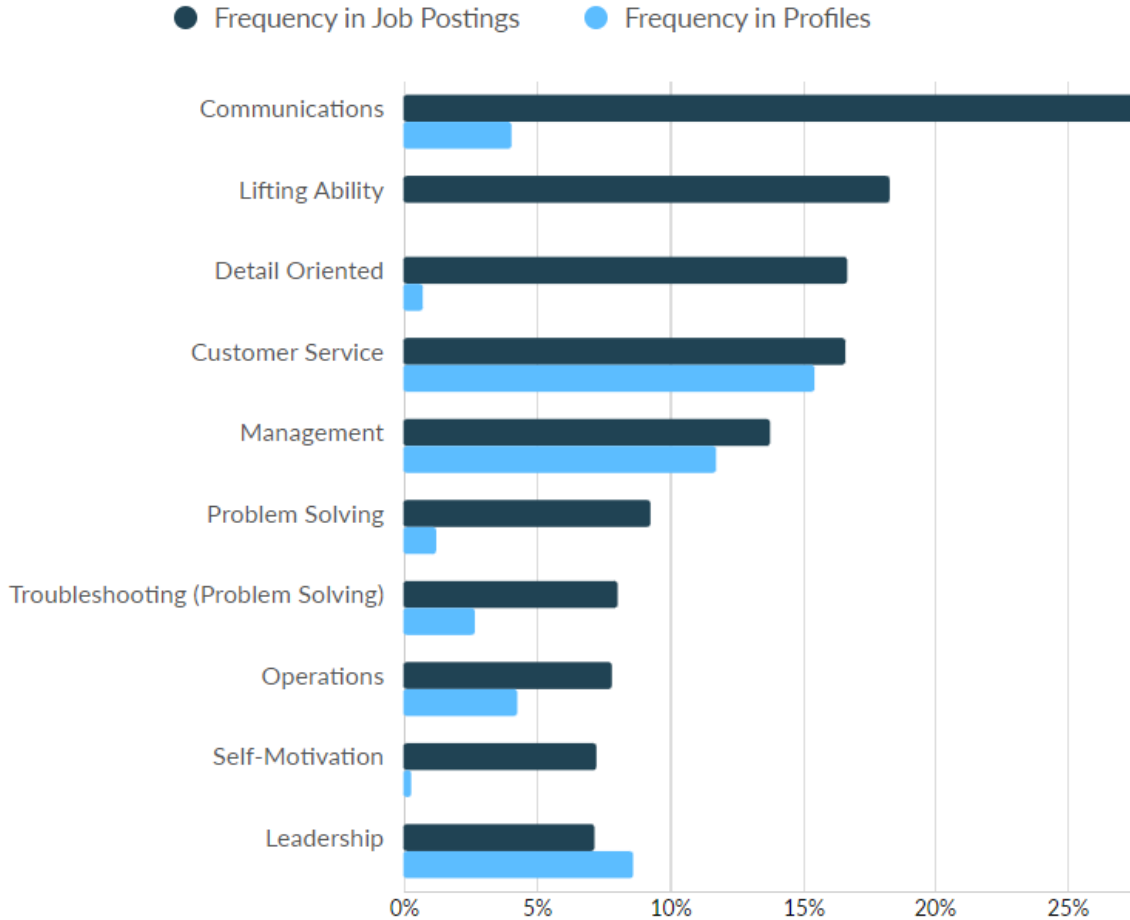


**+11.5%**  
in posting volumes  
between 2021 and 2022

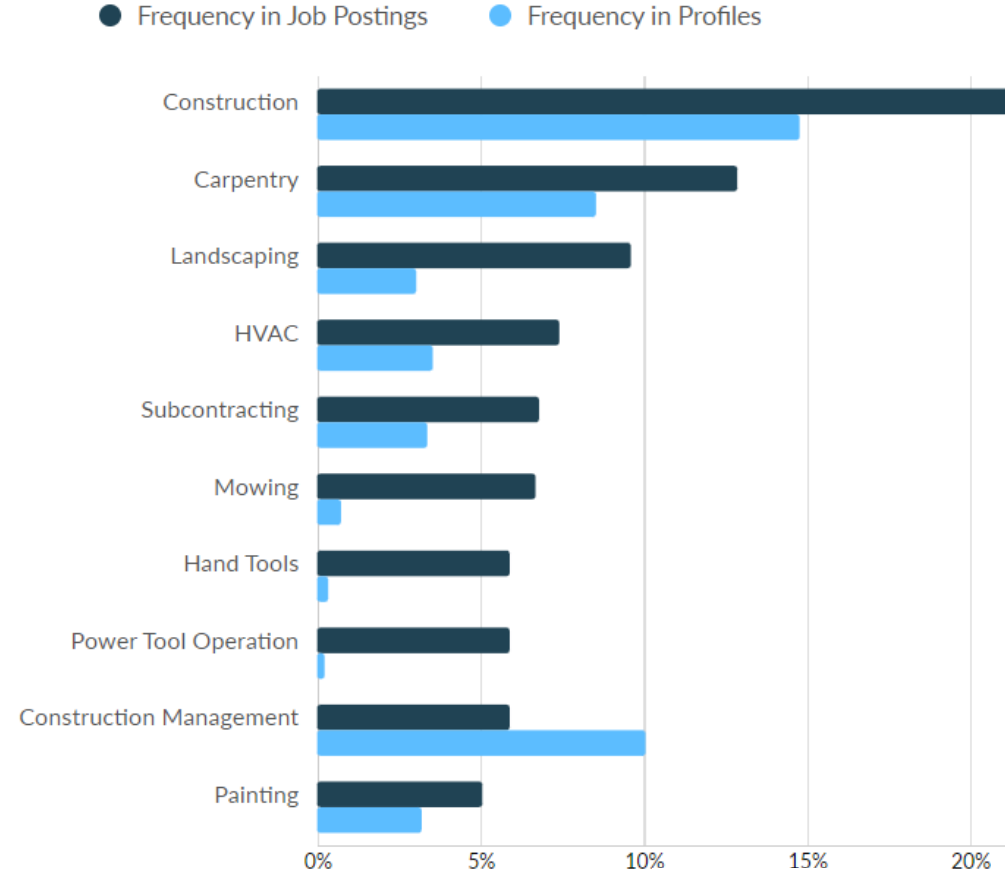
**1 hire**  
for every 1 unique job posting

# Architecture and Construction Skill Demand

Common Skills in Demand



Specialized Skills in Demand



# Priorities by Pathway

## Health Science

**CRITICAL ISSUE:** Address the growing local shortage of talent in key roles that provide direct care to aging and high-need populations.

- Ramp up volume of graduates coming through critical postsecondary programs that train:
  - Registered Nurses
  - Medical and Health Services Managers
  - Nurse Practitioners
- Support employers in talent retention efforts in origin and gateway occupations

## Manufacturing

**CRITICAL ISSUE:** Bolster the Wood Product and Chemical Manufacturing Industries by growing talent pipelines in occupations of high shortages.

- Grow the volume of graduates at the two-year level for critical roles including:
  - Industrial Engineering Techs
  - Chemical Techs
  - Welders and Solderers
  - Industrial Machinery Mechanics
  - Chemical Equipment Operators
- Build career advancement pathways into critical supervisory positions including:
  - Production Supervisors
  - Mechanics Supervisors

## Architecture and Construction

**CRITICAL ISSUE:** Grow the base of talent needed to support the important Drywall and Nonresidential Structural Steel Industries, as well as the Power Line Construction Industry.

- Accelerate talent attraction into origin and gateway occupations in high-demand in these core industries that are forecasting shortages, such as Drywall Installers.
- Address talent shortages through expanding career advancement pathways to ensure sufficient talent:
  - Construction Managers
  - Construction Supervisors

# 05. Summary

## We're at a turning point

The talent shortage poses challenges we have never encountered before, necessitating new solutions and collective action

## Our industry needs are clear

Washington County has strong local Manufacturing, Construction, and Healthcare industries whose future growth relies on the ability to attract, retain, and train local talent

## Our community is becoming more diverse

The county has welcomed nearly 30,000 new residents between 2010 and 2021, and has increased in racial diversity to about 20.3% of local residents being BIPOC by race or ethnicity as of 2021

## Workplaces are changing

Our talent has different expectations for the workplace, and employers are responding by offering more flexibility in place of work and scheduling

## We can lead by example

The Washington County CDA and its partners countywide have an opportunity to offer an impactful model of economic development support that features workforce development at the center of a healthy and thriving local economy



# Next Steps

---

Washington County is poised for growth, if it can leverage its available workforce effectively and attract talent to fill critical workforce needs. An accompanying labor market supply study will further analyze the depth of workforce needs and elevate gaps and opportunities in education and workforce development.

Working forward together,

**RealTime Talent**

[erin@realtimetalentmn.org](mailto:erin@realtimetalentmn.org)





# Author of this Report



**Erin Olson, MURP, MPH**

Senior Director of Strategic Research,  
RealTime Talent

# FAQ Regarding Data and Methodology

## What is a location quotient?

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

## What is a cluster?

A cluster is a geographic concentration of interrelated industries or occupations. If a regional cluster has a location quotient of 1.25 or greater, the region is considered to possess a competitive advantage in that cluster.

## What is separation demand?

Separation demand is the number of jobs required due to separations—labor force exits (including retirements) and turnover resulting from workers moving from one occupation into another. Note that separation demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The total projected demand for an occupation is the sum of the separation demand and the growth demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

## What is the difference between industry wages and occupation wages?

Industry wages and occupation wages are estimated via separate data sets, often the time periods being reported do not align, and wages are defined slightly differently in the two systems (for example, certain bonuses are included in the industry wages but not the occupation wages). It is therefore common that estimates of the average industry wages and average occupation wages in a region do not match exactly. Annual average wages per worker and 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 2022Q2 with preliminary estimates updated to 2022Q3.

## What is NAICS?

The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top-level category, known as the “sector,” which is the level examined in this report.

# FAQ Regarding Data and Methodology - Continued

## Where does the data on Gross Domestic Product (GDP) come from?

Gross Domestic Product data are provided by the Bureau of Economic Analysis, imputed by Chmura where necessary, updated through 2021.

## What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 804 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 22 major groups, 95 minor groups, and 452 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

## Where can I learn more about the sources that were used in this report?

**Lightcast** offers a suite of labor market data analysis tools that are used to analyze candidate profiles and educational data from NCES IPEDS to track program graduate data and estimate talent pool availability. These tools scrape millions of candidate profiles and model skills, credentials, and employment experience to link where talent is located to where talent is in demand.

**Chmura JobsEQ** is a labor market data analysis tool that provides employment, unemployment, and education data from sources like the Bureau of Labor Statistics, Census Bureau, and NCES IPEDS and models this data at detailed geographic levels. This tool is utilized by RealTime Talent to model alternate forecasts impacted by COVID-19 to show possible future-state talent gaps, award gaps, and optimistic employment growth.

## Who created this report?

This report was developed by RealTime Talent for the Transportation Center of Excellence. If you have questions about the data found in this report, or are interested in learning more, please contact the Senior Director of Strategic Research, Erin Olson at [erin@realtimetalentmn.org](mailto:erin@realtimetalentmn.org) or visit the RealTime Talent website at [www.realtimetalent.org](http://www.realtimetalent.org)

Labor Market title page graphic: Roger Spooner/Getty Images

Articles cited in the introduction: 1. US Chamber of Commerce. Understanding America's Labor Shortage. Feb 22, 2023. Accessed at <https://www.uschamber.com/workforce/understanding-americas-labor-shortage> 2. US Chamber of Commerce. Understanding America's Labor Shortage: The most Impacted States. Feb 1, 2023. Accessed at <https://www.uschamber.com/workforce/the-states-suffering-most-from-the-labor-shortage?state=mn>



# Washington County Labor Supply Study

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**Washington County CDA**

Developed by RealTime Talent

March 29, 2023



# Supply Study Contents

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# 01. Introduction

## The talent shortage is here, and likely to become more severe

Significant talent shortages have been on the horizon for years, and the effects of the COVID-19 Pandemic accelerated many of the workforce transitions and talent misalignments seen on our horizon in 2018. In 2022, demographic trends and the complex economic environment nationwide collided to create the tightest job market in history, and the impacts of that tightness are still being felt. We still see a “great reshuffle” playing out as talent seeks higher wage opportunities more closely aligned to areas of interest and skill, and early retirements, lack of access to childcare and other dependent care, illness, entrepreneurship and new business starts are cited as the top influencing factors limiting our available talent pool.<sup>1</sup> Minnesota has one of the most severe talent shortages in the nation, with about 50 available workers for every 100 open jobs—not even taking into account skill misalignments.<sup>2</sup> In short, we don’t have workers to spare.

## The needs and expectations of talent are shifting

In the same way that the COVID-19 Pandemic impacted the way that businesses operate, it also impacted the expectations of workers. Talent that had postponed retirement began exiting the workforce at a more rapid pace, and remote and hybrid work environments led to shifts in commute patterns that have remained with our communities even after stabilization. In addition, the demographic pendulum has swung with an aging local workforce and a swelling of a more diverse younger generation on the cusp of entering the world of work.



A black and white photograph of a diverse group of people laughing and talking together in a social setting. The image is slightly blurred, emphasizing a sense of movement and joy. In the foreground, a man with dreadlocks is laughing heartily on the left, while a woman with glasses and a woman with braids are smiling and looking towards each other in the center. To the right, another woman with short hair is laughing. The background shows other people, some out of focus, suggesting a larger gathering.

## **02. Community Overview**

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# Regional Demographics – Age and Gender

Demographics	Percent			Value		
	Washington County, Minnesota	Minnesota	USA	Washington County, Minnesota	Minnesota	USA
<b>Demographics</b>						
Population (ACS)	—	—	—	259,072	5,600,166	326,569,308
Male	49.5%	49.8%	49.2%	128,233	2,789,017	160,818,530
Female	50.5%	50.2%	50.8%	130,839	2,811,149	165,750,778
Median Age <sup>2</sup>	—	—	—	39.5	38.1	38.2
Under 18 Years	24.5%	23.2%	22.4%	63,411	1,299,284	73,296,738
18 to 24 Years	7.9%	8.9%	9.3%	20,422	498,444	30,435,736
25 to 34 Years	11.6%	13.6%	13.9%	29,979	760,033	45,485,165
35 to 44 Years	13.3%	12.7%	12.7%	34,366	710,985	41,346,677
45 to 54 Years	13.9%	12.4%	12.7%	36,125	692,277	41,540,736
55 to 64 Years	13.9%	13.4%	12.9%	36,057	751,567	42,101,439
65 to 74 Years	9.0%	9.1%	9.4%	23,308	511,127	30,547,950
75 Years and Over	5.9%	6.7%	6.7%	15,404	376,449	21,814,867
<b>Population Growth</b>						
Population (Pop Estimates) <sup>4</sup>	—	—	—	265,476	5,657,342	329,484,123
Population Annual Average Growth <sup>4</sup>	1.1%	0.6%	0.6%	2,654	34,641	2,015,698
People per Square Mile	—	—	—	682.9	70.8	92.9
<b>Economic</b>						
Armed Forces Labor Force	0.1%	0.1%	0.4%	176	3,607	1,143,342
Veterans, Age 18-64	3.9%	3.7%	4.5%	6,162	125,683	8,920,267
Veterans Labor Force Participation Rate and Size, Age 18-64	83.9%	80.9%	76.8%	5,171	101,620	6,853,673
Median Household Income <sup>2</sup>	—	—	—	\$97,584	\$73,382	\$64,994
Per Capita Income	—	—	—	\$46,842	\$38,881	\$35,384
Mean Commute Time (minutes)	—	—	—	25.7	23.8	26.9
Commute via Public Transportation	1.9%	3.2%	4.6%	2,525	93,692	7,044,886

Washington County’s population is forecast to grow by about 1.1% annually, adding just over 2,650 residents per year, about 7.7% of the total population growth forecast for Minnesota as a whole. The largest adult age cohorts in Washington County’s population are between 45-54 and 55-64 years old, suggesting a local population approaching retirement age.

About 3.9% of Washington County’s population are veterans (6,162), and the labor force participation rate of Washington County’s veterans is higher than the rate observed statewide: 83.9% compared to 80.9%.

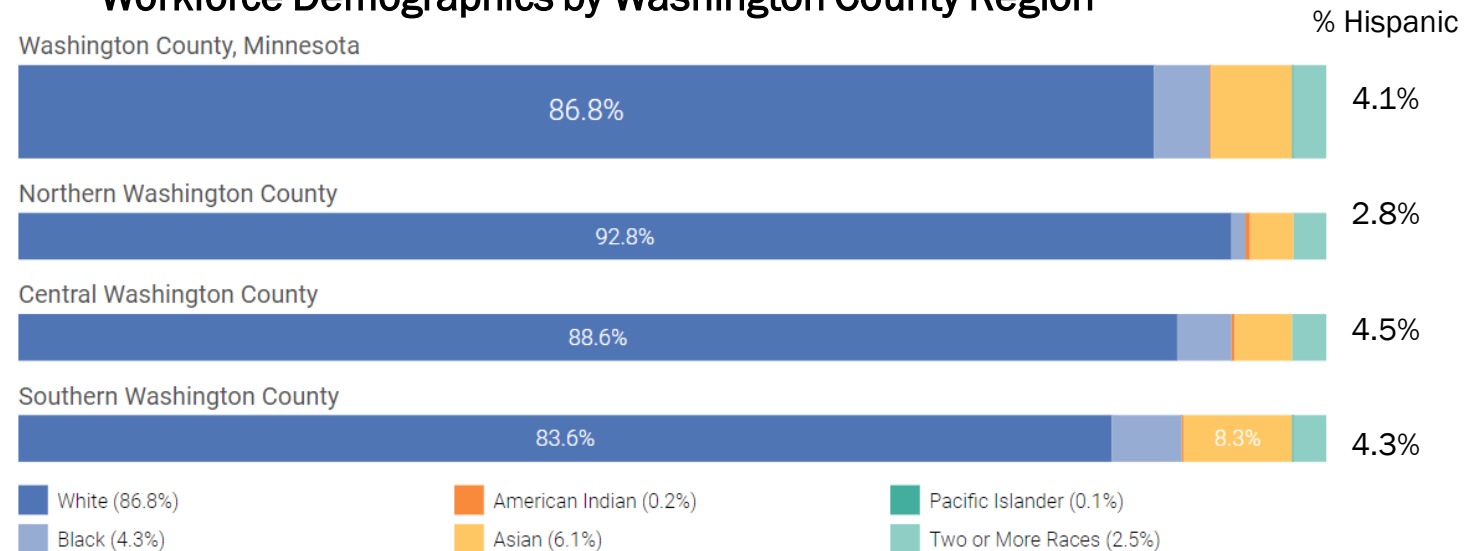
About 1.9% of Washington County residents commute via public transportation compared to 3.2% statewide and 4.6% nationwide.

# Regional Demographics – Race and Ethnicity

Southern Washington County is the most diverse of the three regions, with 18.8% of residents being Black, Indigenous, or People of Color (BIPOC) as defined by race; an additional 4.6% identify as Hispanic or Latinx. Nearly one in ten Southern Washington County residents are foreign-born. Similar statistics are reflected in the local workforce (see the chart to the right).

Central Washington County has the highest share of the population that are veterans.

### Workforce Demographics by Washington County Region



### Population Race, Ethnicity, Foreign Born, and Veteran Status by Region

	% BIPOC Race	% Hispanic/Latinx	% Foreign Born	% Veterans
Northern Washington County	9.8%	3.1%	2.9%	3.6%
Central Washington County	14.3%	4.4%	5.5%	4.5%
Southern Washington County	18.8%	4.6%	9.2%	3.7%
Washington County, MN	15.8%	4.3%	6.9%	3.9%

# Educational Attainment

Among Washington County’s population 18 or older, the local Asian population has the highest percent of residents holding a Bachelor’s degree or higher (56.9%), but it is the non-Hispanic White population that has the highest share of adults holding at least a high school diploma or equivalent (97.6%). By age cohort, about 12.4% of 18- to 24-year-olds have not completed a high school diploma or equivalent credential, with this volume dropping to just 3.7% of all adults 25 years and older in Washington County (the 25-34 year cohort is most likely to hold a high school diploma or more education).

## Educational Attainment by Race and Ethnicity, Washington County, Minnesota

	White alone, not Hispanic/Latinx			Black Alone			American Indian/Alaska Native			Asian Alone			Some other race alone (incl. NH/PI)			Two or More Races			Hispanic or Latinx Origin		
	HS+	BA+		HS+	BA+		HS+	BA+		HS+	BA+		HS+	BA+		HS+	BA+		HS+	BA+	
<b>Total Population</b>	151,563	147,928	72,385	7,170	5,947	2,578	438	336	34	10,486	9,893	5,970	1,940	1,557	529	4,432	4,210	1,760	6,254	5,197	2,218
Percent of Community Group		97.6%	47.8%		82.9%	36.0%		76.7%	7.8%		94.3%	56.9%		80.3%	27.3%		95.0%	39.7%		83.1%	35.5%
Percent of Total Population	83.1%	81.2%	39.7%	3.9%	3.3%	1.4%	0.2%	0.2%	0.0%	5.8%	5.4%	3.3%	1.1%	0.9%	0.3%	2.4%	2.3%	1.0%	3.4%	2.9%	1.2%
Percent of Education Level		84.5%	84.7%		3.4%	3.0%		0.2%	0.0%		5.7%	7.0%		0.9%	0.6%		2.4%	2.1%		3.0%	2.6%

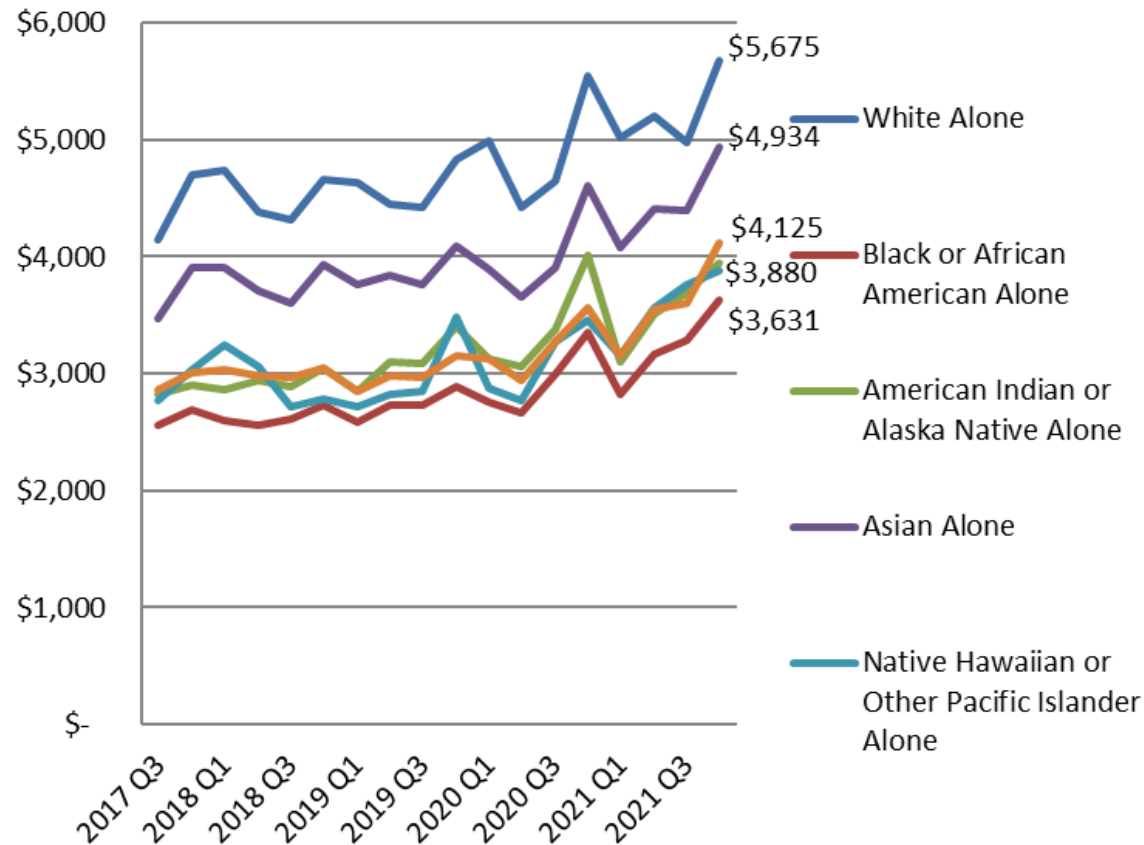
## Educational Attainment by Age, Washington County, Minnesota

	Total	Population 18 to 24 years					Population 25 years and over			Population 25 to 34 years			Population 35 to 44 years			Population 45 to 64 years			Population 65 years and over		
		<HS	HS/GED	Some College/ AS	BA+		HS+	BA+		HS+	BA+		HS+	BA+		HS+	BA+		HS+	BA+	
<b>Total Population</b>	199,818	20,718	2,562	6,350	8,039	3,767	179,100	172,398	84,393	30,117	29,258	13,977	35,880	34,688	21,076	73,205	70,304	34,366	39,898	38,148	14,974
Percent of Age Group			12.4%	30.6%	38.8%	18.2%		96.3%	47.1%		97.1%	46.4%		96.7%	58.7%		96.0%	46.9%		95.6%	37.5%
Percent of Total Population		10.4%	1.3%	3.2%	4.0%	1.9%	89.6%	86.3%	2.2%	15.1%	14.6%	7.0%	18.0%	17.4%	10.5%	36.6%	35.2%	17.2%	20.0%	19.1%	7.5%
Percent of Education Level			27.7%	15.4%	13.1%	4.3%		90.5%	95.7%		15.4%	15.9%		18.2%	23.9%		36.9%	39.0%		20.0%	17.0%

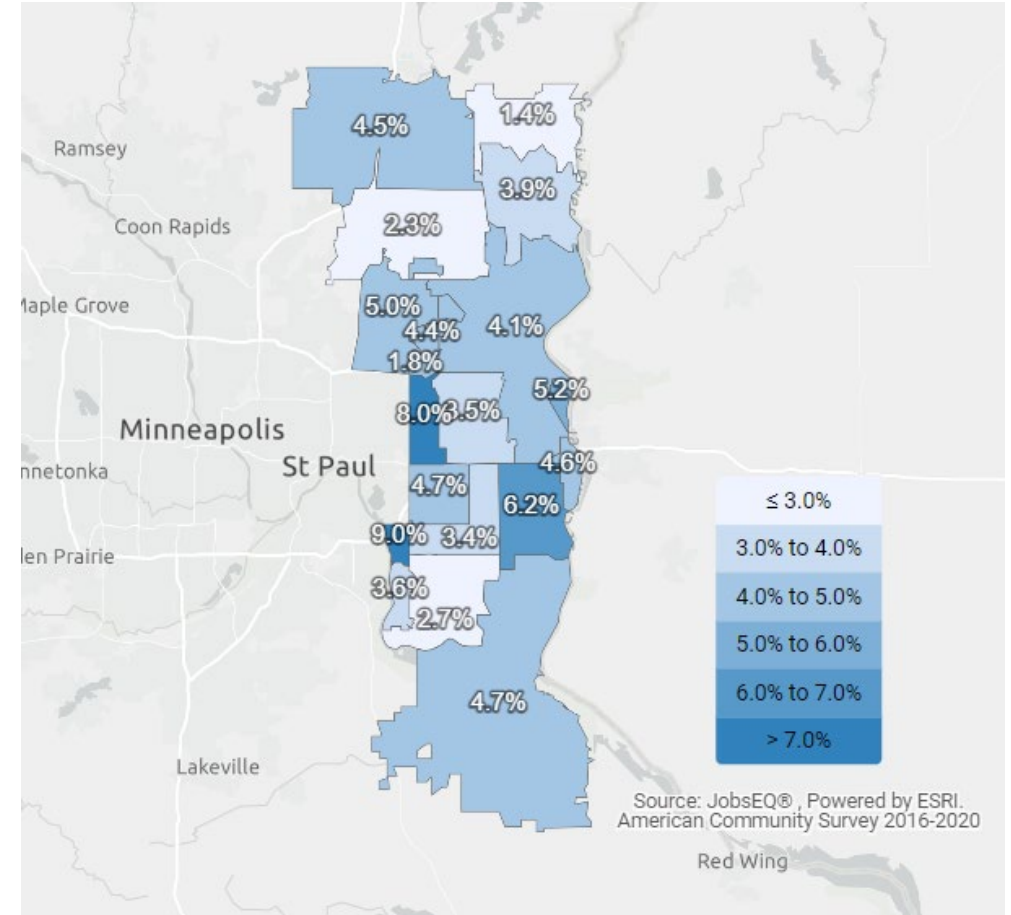
Source: US Census Bureau, 2021 5-Year ACS. Data on White talent that includes Hispanic/Latinx, and Native Hawaiian/Pacific Islanders have been excluded from this table due to redundancy in the first instance and small sample sizes in the second (only 138 individuals); NH/PI has been combined with “some other race.”

# Income and Wages

Quarterly Wages for Stable Hires in Washington County



Percent of Population At or Below the Federal Poverty Level



Sources: Bureau of Labor Statistics Quarterly Workforce Indicators (QWI) by race, all industries. US Census Bureau American Community Survey 5-Year Estimates. More on how the US Census Bureau calculates poverty can be found at: <https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>



# Social Characteristics

Washington County has just under 100,000 housing units, with a median value of \$301,000—above the statewide median of \$235,700. Homeowner vacancy rates are low at 0.6% or about 486 total vacant homesteaded units. About 18.4% of occupied housing units in Washington County are renter-occupied, compared to 28.1% statewide.

About 4.4% of the total population of Washington County live in poverty, with zip codes in the central region having higher poverty rates (see prior page). Nearly one in four children live in single parent families (23.0%), below the rate observed statewide (28.4%). There are also fewer disconnected youth in Washington County than observed statewide, at just 0.6% of youth (or about 78 young people) between 16 and 19 years of age who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force. Nearly 18,000 residents (6.9% of the population) are foreign born, and 2.7% of residents over 5 years old speak English “less than very well.”

	Percent			Value		
	Washington County, Minnesota	Minnesota	USA	Washington County, Minnesota	Minnesota	USA
<b>Housing</b>						
Total Housing Units	—	—	—	99,696	2,458,030	138,432,751
Median House Value (of owner-occupied units) <sup>2</sup>	—	—	—	\$301,000	\$235,700	\$229,800
Homeowner Vacancy	0.6%	0.8%	1.4%	486	12,744	1,129,755
Rental Vacancy	2.8%	4.2%	5.8%	511	27,736	2,704,553
Renter-Occupied Housing Units (% of Occupied Units)	18.4%	28.1%	35.6%	17,628	619,377	43,552,843
Occupied Housing Units with No Vehicle Available (% of Occupied Units)	3.8%	6.6%	8.5%	3,638	145,467	10,344,521
<b>Social</b>						
Poverty Level (of all people)	4.4%	9.3%	12.8%	11,134	511,185	40,910,326
Households Receiving Food Stamps/SNAP	4.0%	7.5%	11.4%	3,804	165,078	13,892,407
Enrolled in Grade 12 (% of total population)	1.8%	1.4%	1.3%	4,552	78,075	4,358,865
Disconnected Youth <sup>3</sup>	0.6%	1.8%	2.5%	78	5,115	433,164
Children in Single Parent Families (% of all children)	23.0%	28.4%	34.0%	14,241	354,664	23,628,508
Uninsured	3.5%	4.5%	8.7%	8,952	251,900	28,058,903
With a Disability, Age 18-64	7.7%	8.7%	10.3%	11,924	295,441	20,231,217
With a Disability, Age 18-64, Labor Force Participation Rate and Size	59.7%	52.8%	43.2%	7,117	156,039	8,740,236
Foreign Born	6.9%	8.4%	13.5%	17,877	470,687	44,125,628
Speak English Less Than Very Well (population 5 yrs and over)	2.7%	4.5%	8.2%	6,624	234,697	25,312,024

Source: US Census Bureau American Community Survey 2016-2020 5-Year Estimates. More on how the US Census Bureau calculates poverty can be found at: <https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>







## 03. Labor Force Overview

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# Labor Force Overview

Washington County's population has grown at a faster rate than observed statewide and is home to a highly-engaged labor force. Taking the demographic, social, and economic realities of the first section of this report as backdrop, this section features a high-level summary of who is working in Washington County.

## Approach

- Summarize overall labor force participation, employment, and unemployment statistics
- Drill down to disparities in employment by race, ethnicity, gender, and age where possible
- Explore differences in labor force participation trends by region
- Unpack high-level unemployment, underemployment, and wage information by occupation groups

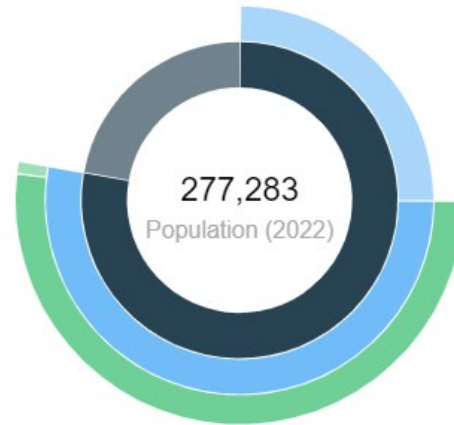


# Population and Labor Force Trends

Washington County is home to an estimated 277,283 residents of all ages as of 2022, growing by 21,566 over the last 5 years and is projected to grow by 23,061 over the next five years. Unemployment is low at an estimated 1.9% county-wide as of 2022Q3 (2,728 people). A larger share of Black and African American adults are unemployed than their share of the local workforce (9.3% of the unemployed compared to 4.7% of the population and 4.3% of the workforce).

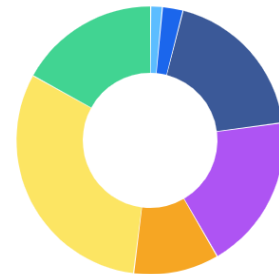
Approximately three in ten adult residents hold a bachelor's degree (31.1%, which is 10.2% above the national average).

## Labor Force Participation Summary Statistics



	Population
16+ Civilian Non-Institutionalized Population	215,494
Not in Labor Force (16+)	69,318
Labor Force	146,176
Employed	143,635
Unemployed	2,541
Under 16, Military, and institutionalized Population	61,789

## Educational Attainment of the Prime Working Age Population



	% of Population	Population
Less Than 9th Grade	1.4%	2,652
9th Grade to 12th Grade	2.5%	4,722
High School Diploma	18.9%	35,778
Some College	18.8%	35,468
Associate's Degree	10.3%	19,557
Bachelor's Degree	31.1%	58,737
Graduate Degree and Higher	17.0%	32,250

Unemployment by Race, Nov 2022	
American Indian/Alaska Native	37 (1.5%)
Asian	79 (3.1%)
Black or African American	236 (9.3%)
Native Hawaiian/Pacific Islander	6 (0.2%)
White	2,182 (85.9%)

Source: Lightcast 2023Q1 Dataset.

# Regional Trends

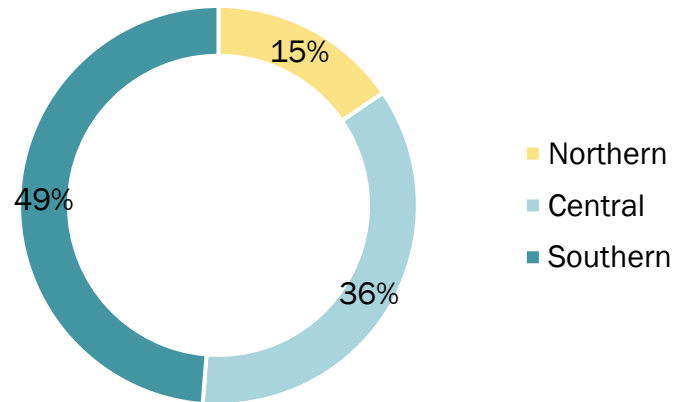
Washington County is home to an estimated 277,283 residents of all ages, with the largest share of population residing in the Southern portion of the county (49).

The Southern and Central regions have the highest overall labor force participation rates.

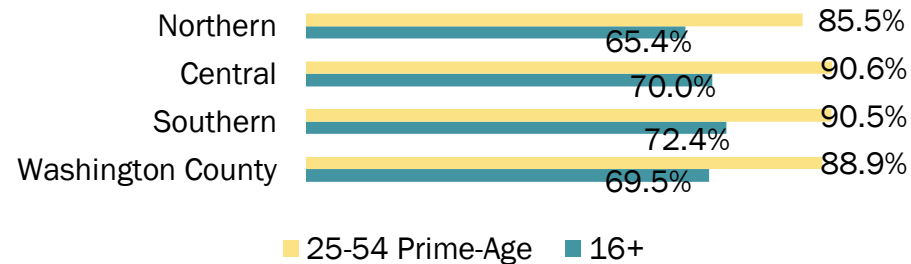
Average annual salary is highest in the Central region of the county (\$57,259).

Average Annual Salary by Region	
Northern Washington County	\$50,478
Central Washington County	\$57,259
Southern Washington County	\$52,950
Washington County, MN	\$54,920

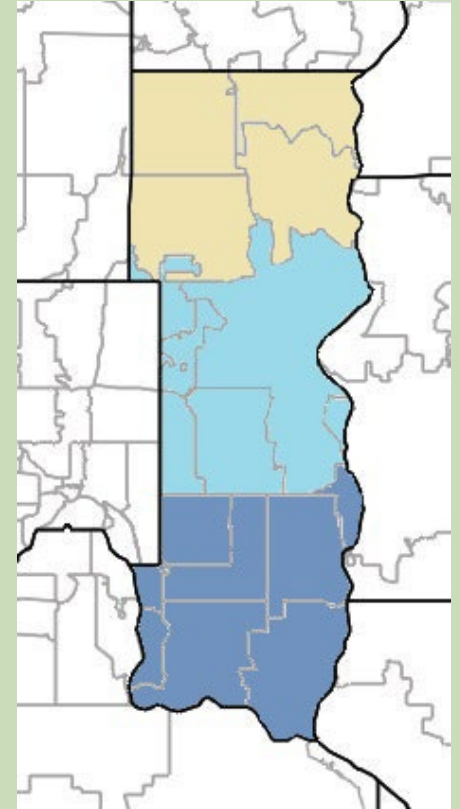
Share of Population by Washington County Region



Civilian Labor Force Participation Rate by Region



Map of Washington County





# Unemployment and Underemployment

This table indicates employment, unemployment, and under-employment of talent working in Washington County. While unemployment overall is already low at 1.9%, it is particularly low in Healthcare Practitioners and Technical (0.6%), Computer and Mathematical (0.8%), and Legal (0.8%) occupations.

Underemployment occurs when an individual has more advanced training or education beyond what is required in their current occupation. Underemployed individuals may seek job changes to better align their experience with their work. About 23,146 people working in Washington County are underemployed.

SOC	Occupation	Empl (Place of Work)		Overall Occupation		
		Underemployed	2022Q3 Empl	Avg Ann Wages	Forecast Ann Growth	Unempl Rate
43-0000	Office and Administrative Support Occupations	3,963	10,591	\$47,200	0.0%	1.7%
41-0000	Sales and Related Occupations	3,953	11,633	\$46,000	0.2%	2.4%
35-0000	Food Preparation and Serving Related Occupations	2,511	10,041	\$33,200	1.6%	3.6%
53-0000	Transportation and Material Moving Occupations	1,717	8,499	\$45,200	1.1%	2.9%
11-0000	Management Occupations	1,516	5,805	\$117,000	1.1%	1.1%
51-0000	Production Occupations	1,460	6,938	\$46,900	0.1%	2.4%
31-0000	Healthcare Support Occupations	1,190	4,422	\$36,700	2.2%	2.1%
39-0000	Personal Care and Service Occupations	1,187	3,491	\$36,600	1.9%	3.6%
47-0000	Construction and Extraction Occupations	810	4,580	\$65,200	0.8%	2.8%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	677	3,219	\$39,800	0.9%	2.7%
13-0000	Business and Financial Operations Occupations	646	4,919	\$83,700	1.0%	1.1%
29-0000	Healthcare Practitioners and Technical Occupations	620	5,519	\$102,600	1.4%	0.6%
49-0000	Installation, Maintenance, and Repair Occupations	612	3,260	\$58,600	0.9%	1.3%
25-0000	Educational Instruction and Library Occupations	586	5,822	\$56,200	1.0%	1.3%
33-0000	Protective Service Occupations	556	1,357	\$60,800	0.4%	1.5%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	423	1,656	\$64,100	1.4%	2.5%
15-0000	Computer and Mathematical Occupations	296	2,340	\$96,300	1.3%	0.8%
45-0000	Farming, Fishing, and Forestry Occupations	135	580	\$42,400	0.9%	2.7%
17-0000	Architecture and Engineering Occupations	125	1,227	\$88,700	0.8%	0.9%
23-0000	Legal Occupations	124	680	\$111,400	1.3%	0.8%
19-0000	Life, Physical, and Social Science Occupations	40	684	\$81,800	1.0%	1.2%
<b>Total - All Occupations</b>		<b>23,146</b>	<b>99,098</b>	<b>\$58,000</b>	<b>0.9%</b>	<b>1.9%</b>

## 04. Post-High School Education

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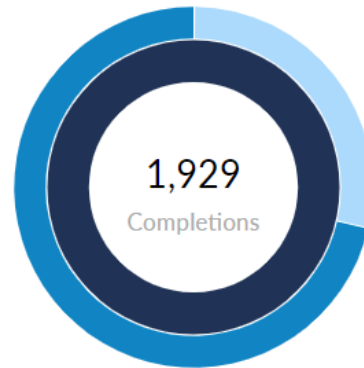


# Post-High School Education Opportunities

There were a total of 1,929 awards conferred at the two post-high school accredited institutions based in Washington County in the 2021 school year, with Liberal Arts and Sciences Associate degrees having the highest volume of awards conferred (426 awards from CIP 24-0101). Over half (59.4%) of completions were Associate's degrees, 22.6% were certificates that take less than one academic year, 16.3% were certificates taking one to two years, and 1.7% were awards taking more than two years but less than four to complete.

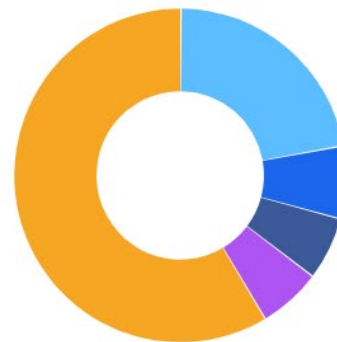
About 29% of all completions were achieved through distance-offered programs. All completions have declined by about 10.7% over the past 10 years.

### Awards Conferred at Washington County Schools, SY2021



	Completions (2021)	% Completions	Institutions (2021)	% Institutions
All Programs	1,929	100%	2	100%
Distance Offered Programs	551	29%	1	50%
Non-Distance Offered Programs	1,378	71%	2	100%

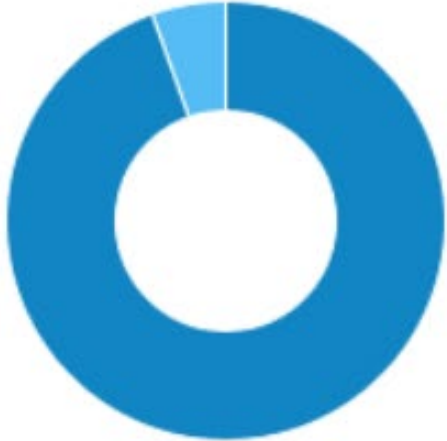
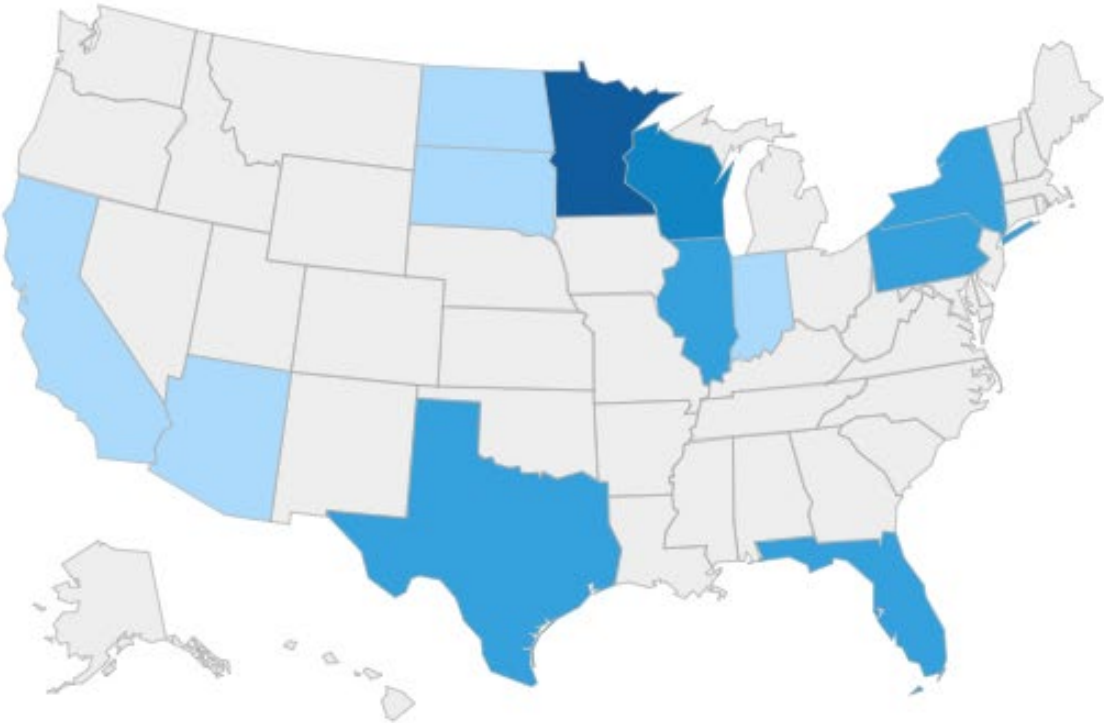
### Awards Conferred at Washington County Schools by Program, SY2021



Program	Completions (2021)	Market Share
Liberal Arts and Sciences, General Studies and Humanities (24.01)	426	22.1%
Cosmetology and Related Personal Grooming Services (12.04)	136	7.1%
Dental Support Services and Allied Professions (51.06)	118	6.1%
Allied Health and Medical Assisting Services (51.08)	118	6.1%
Other	1,131	58.6%

# Century College Freshmen Attraction

2020 Freshmen Home State Map



**In State : 988 (94.55%)**  
**Out of State : 57 (5.45%)**

Century College delivered 1,810 of all 2021 completions, and the Minnesota School of Cosmetology in Woodbury conferred the rest (119).

Among freshmen enrolling at Century College in 2020, 94.5% were in-state students, while the other 5.5% came from Wisconsin, Illinois, Texas, Florida, New York, and Pennsylvania.

# Healthcare Programs

Top Ten CIP Programs by Volume of Awards Conferred at Washington County Schools, SY2021

CIP	CIP Title	Cert <1 Yr	Cert 1< >2 Yr	Associate	Cert 2< Yr	Total Awards
51.3801	Registered Nursing/Registered Nurse	0	0	108	0	108
51.0601	Dental Assisting/Assistant	0	59	47	0	106
51.0810	Emergency Care Attendant (EMT Ambulance)	84	0	0	0	84
51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide	60	0	0	0	60
51.2307	Orthotist/Prosthetist	0	6	30	19	55
51.0911	Radiologic Technology/Science - Radiographer	0	0	40	0	40
51.0801	Medical/Clinical Assistant	0	34	0	0	34
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	0	16	14	0	30
51.0000	Health Services/Allied Health/Health Sciences, General	0	0	18	0	18
51.0716	Medical Administrative/Executive Assistant and Medical Secretary	0	0	15	0	15
	<b>Total</b>	<b>190</b>	<b>118</b>	<b>296</b>	<b>19</b>	<b>623</b>

## Awards Conferred in Healthcare Pathways

623 Total SY2021 Awards

15% Awards from Distance-  
Offered Programs (96)

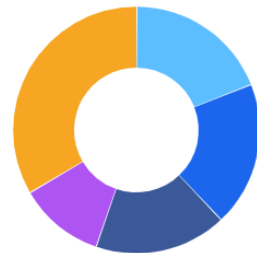
-6.2% over the past 10 years

47.5% Associate Degrees

52.5% Certificates

**Top Award Gaps**  
Medical Managers  
Licensed Practical Nurses  
Nurse Practitioners

Awards by Broad Group



Program	Completions (2021)	Market Share
Dental Support Services and Allied Professions (51.06)	118	18.9%
Allied Health and Medical Assisting Services (51.08)	118	18.9%
Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing (51.38)	108	17.3%
Allied Health Diagnostic, Intervention, and Treatment Professions (51.09)	70	11.2%
Other	209	33.5%

# Manufacturing Programs

Top Ten CIP Programs by Volume of Awards Conferred at Washington County Schools, SY2021

CIP	CIP Title	Cert <1 Yr	Cert 1< >2 Yr	Associate	Cert 2< Yr	Total Awards
15.1302	CAD/CADD Drafting and/or Design Technology/Technician	10	0	12	0	22
14.0102	Pre-Engineering	0	0	21	0	21
48.0508	Welding Technology/Welder	13	0	0	0	13
15.1202	Computer/Computer Systems Technology/Technician	0	0	7	0	7
15.0000	Engineering Technologies/Technicians, General	0	0	5	0	5
15.1703	Solar Energy Technology/Technician	3	1	0	0	4
15.1701	Energy Systems Technology/Technician	0	0	3	0	3
41.0101	Biology/Biotechnology Technology/Technician	0	0	0	0	0
	<b>Total</b>	<b>26</b>	<b>1</b>	<b>48</b>	<b>0</b>	<b>75</b>

## Awards Conferred in Manufacturing Pathways

75 Total SY2021 Awards

0 Awards from Distance-  
Offered Programs

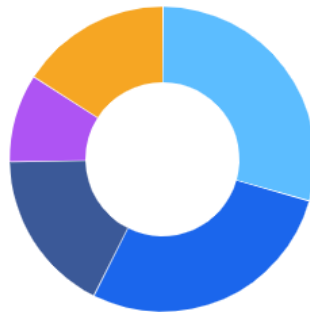
+41.5% over the past 10 years

64.0% Associate Degrees

36.0% Certificates

**Top Award Gaps**  
Industrial Engineering Techs  
Chemical Techs  
Supervisors of Production Workers

Awards by Broad Group



Program	Completions (2021)	Market Share
Drafting/Design Engineering Technologies/Technicians (15.13)	22	29.3%
Engineering, General (14.01)	21	28.0%
Precision Metal Working (48.05)	13	17.3%
Computer Engineering Technologies/Technicians (15.12)	7	9.3%
Other	12	16.0%

# Construction and Architecture Programs

Top Ten CIP Programs by Volume of Awards Conferred at Washington County Schools, SY2021

CIP	CIP Title	Cert <1 Yr	Cert 1< >2 Yr	Associate	Cert 2< Yr	Total Awards
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician	0	45	16	0	61
46.0401	Building/Property Maintenance	0	2	5	0	7
15.1703	Solar Energy Technology/Technician	3	1	0	0	4
15.1701	Energy Systems Technology/Technician	0	0	3	0	3
	<b>Total</b>	<b>3</b>	<b>48</b>	<b>24</b>	<b>0</b>	<b>75</b>

## Awards Conferred in Construction Pathways

75 Total SY2021 Awards

0 Awards from Distance- Offered Programs

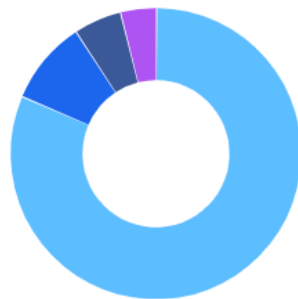
-6.3% over the past 10 years

32.0% Associate Degrees

68.0% Certificates

Top Award Gaps  
 Cost Estimators  
 Construction Managers  
 Civil Engineers

Awards by Broad Group



Program	Completions (2021)	Market Share
Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (47.0201)	61	81.3%
Building/Property Maintenance (46.0401)	7	9.3%
Solar Energy Technology/Technician (15.1703)	4	5.3%
Energy Systems Technology/Technician (15.1701)	3	4.0%



# 05. Talent Demographics

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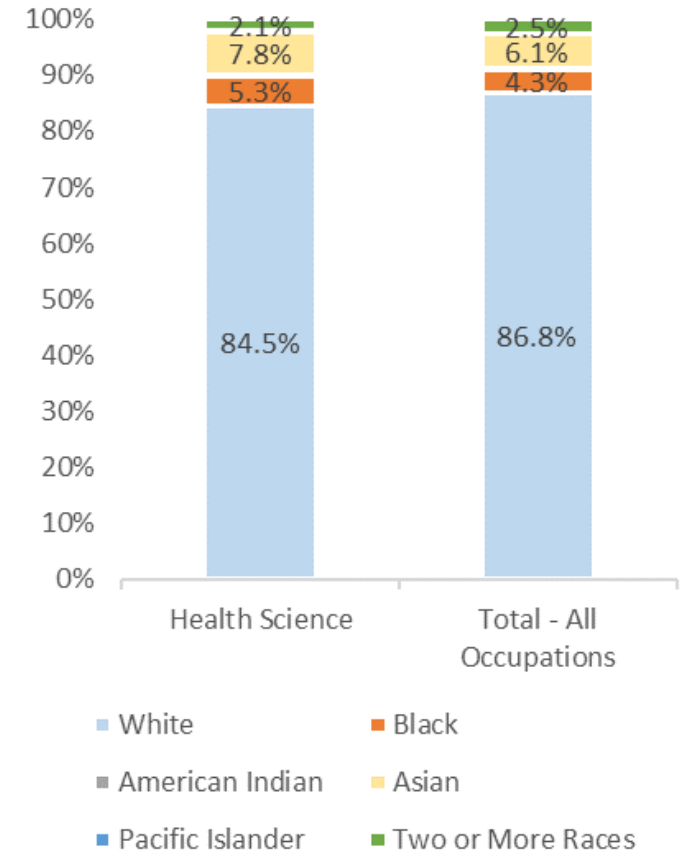
# Health Science Cluster

At an unemployment rate of just 1.0%, talent needs in Health Science careers are significant in Washington County. Century College, located in the immediate region, has many certificates and Associate-level programs that meet and exceed local needs for talent in Origin and Gateway Occupations. However, there are no Washington County-based educational institutions that offer Bachelors, Masters, or PhDs related to Health Science.

## Key Findings

- Moderately higher workforce diversity, with greater representation of Black and Asian talent in the Health Science workforce than observed overall
- High representation of female talent in these careers is likely to persist, given high volumes of females conferring Health Science awards in Washington County
- Many occupations experiencing talent shortages also have a high share of the existing workforce that are 45 or older

Health Science Talent Demographics by Race



# Health Science Talent Demographics

Workforce and Graduate Demographics of the Top Fifteen Occupations of Employment in Health Science

SOC	Occupation	2022Q3 Empl	Unempl Rate	Talent Shortage	Workforce BIPOC by Race	Workforce Hispanic/Latinx	Workforce Female	Workforce 45+	Award Gap	SY2021 Graduates BIPOC by Race or Ethnicity	SY2021 Graduates Female
29-1141	Registered Nurses	2,946	0.6%	Y	15.0%	2.0%	83.8%	47.8%		19.4%	87.0%
31-1121	Home Health Aides	1,065	2.6%		23.9%	6.5%	85.0%	58.4%			
31-1131	Nursing Assistants	956	1.9%	Y	20.2%	3.2%	87.2%	43.5%		40.0%	88.3%
43-6013	Medical Secretaries and Admin. Assistants	730	0.9%	Y	10.6%	3.9%	94.0%	58.2%		26.6%	100.0%
29-2061	Licensed Practical and Licensed Vocational Nurses	567	0.8%	Y	14.6%	2.9%	89.9%	49.0%	Y		
31-9092	Medical Assistants	552	2.1%	Y	12.1%	7.6%	89.5%	33.0%		49.0%	93.9%
11-9111	Medical and Health Services Managers	473	0.5%	Y	13.8%	2.4%	70.1%	57.8%	Y		
29-2052	Pharmacy Technicians	373	1.2%	Y	16.6%	3.8%	75.7%	29.2%	Y		
31-9091	Dental Assistants	351	1.3%	Y	11.5%	7.7%	90.7%	35.4%		44.3%	95.3%
29-1051	Pharmacists	317	0.4%		21.9%	1.3%	51.8%	42.3%	Y		
29-1171	Nurse Practitioners	277	0.1%	Y	8.4%	1.3%	83.7%	46.1%	Y		
29-1292	Dental Hygienists	259	0.6%	Y	6.4%	2.3%	94.0%	52.6%		25.0%	100.0%
29-1123	Physical Therapists	234	0.2%	Y	13.5%	1.2%	60.9%	49.4%	Y		
29-1229	Physicians, All Other	219	0.1%		24.7%	1.3%	35.4%	55.6%	Y		
29-1127	Speech-Language Pathologists	203	0.6%	Y	3.1%	1.2%	93.5%	43.2%	Y		
	<b>All Health Science Careers</b>	<b>13,729</b>	<b>1.0%</b>		<b>15.5%</b>	<b>3.1%</b>	<b>76.2%</b>	<b>47.1%</b>			
	<b>Total – All Occupations</b>	<b>140,319</b>	<b>1.9%</b>		<b>13.2%</b>	<b>4.1%</b>	<b>48.6%</b>	<b>46.8%</b>		<b>31.7%</b>	<b>62.1%</b>

Source: Chmura JobsEQ 2022Q3 Dataset. Names of Industry NAICS or Occupation SOC may be abbreviated. Talent shortage is estimated based on historical talent pipelines in the region, typical job changes, and the likelihood of retirements. Red highlighting indicates lower than overall share of workforce or graduate pool, or existence of occupation or award gap.

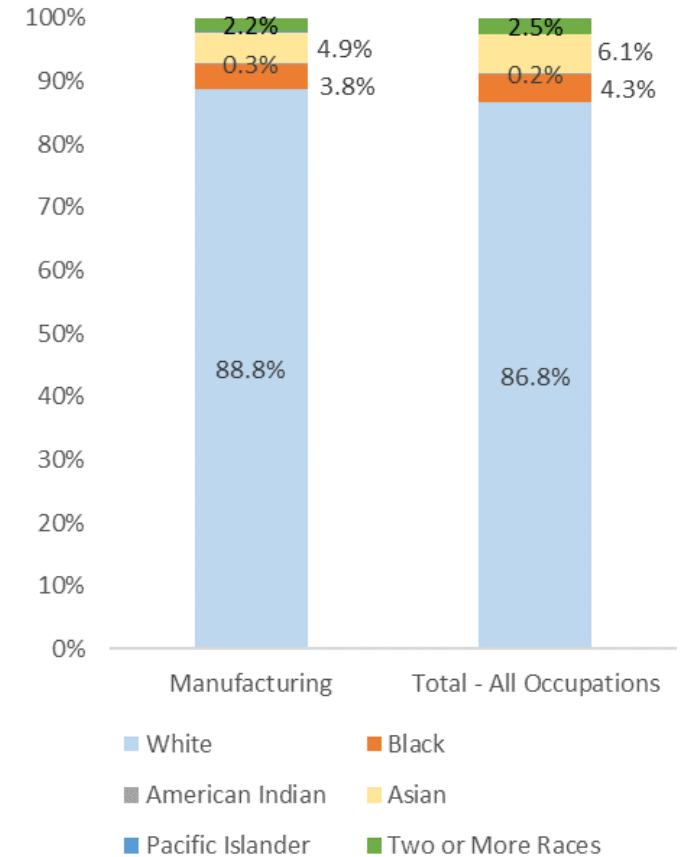
# Manufacturing Cluster

Much like the rest of the state, Washington County's Manufacturing workforce is predominantly White (88.8%). There are very few local post-high school education programs at accredited institutions that directly meet the employment needs of local employers hiring Manufacturing talent; local programs focus on pre-engineering, energy, and solar technology which are all in-demand and high-wage careers, but needs for CNC Machinists, Maintenance Technicians, and Machine Setters in the most prominent local industries are likely to be met by internal training programs or sourcing talent from programs that exist in neighboring counties.

## Key Findings

- Production Supervisors, Machinery Mechanic Supervisors, Machinists, and Industrial Machinery Mechanics are all experiencing local talent shortages and award gaps, suggesting that local education and training programs are likely to be underproducing the talent needed
- Among the top 15 Manufacturing occupations of employment, women are underrepresented in the workforce in all but one occupation (Packaging and Filling Machine Operators), and a larger than normal share of the workforce is 45 years or older in all but one occupation (Welders)

Manufacturing Talent Demographics by Race



# Manufacturing Talent Demographics

Workforce and Graduate Demographics of the Top Fifteen Occupations of Employment in Manufacturing

SOC	Occupation	2022Q3 Empl	Unempl Rate	Talent Shortage	Workforce BIPOC by Race	Workforce Hispanic/Latinx	Workforce Female	Workforce 45+	Award Gap	SY2021 Graduates BIPOC by Race or Ethnicity	SY2021 Graduates Female
49-9071	Maintenance and Repair Workers, General	1,173	1.1%	Y	7.6%	4.9%	4.6%	56.6%			
51-2092	Team Assemblers	1,166	3.3%		15.3%	5.0%	31.6%	48.5%			
51-1011	Supervisors of Production and Operating Workers	586	0.7%	Y	8.7%	3.8%	17.9%	56.3%	Y		
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	446	1.6%		11.2%	4.9%	36.7%	54.7%			
13-1023	Purchasing Agents, Except Wholesale	347	1.5%		9.7%	2.8%	57.6%	51.3%	Y		
51-4041	Machinists	342	1.7%	Y	6.0%	3.9%	3.2%	55.7%	Y		
49-1011	Supervisors of Mechanics, Installers, and Repairers	328	0.4%	Y	5.1%	2.5%	5.7%	65.2%	Y		
43-5061	Production, Planning, and Expediting Clerks	315	1.0%		12.7%	2.9%	45.9%	48.8%			
49-9041	Industrial Machinery Mechanics	271	0.8%	Y	6.2%	4.5%	4.8%	61.7%	Y		
51-7042	Woodworking Machine Setters, Operators, Tenders	269	1.5%	Y	10.7%	5.4%	26.5%	59.3%	Y		
51-2028	Electrical and Electronic Equipment Assemblers	257	2.1%		21.6%	3.5%	41.0%	52.2%	Y		
51-4121	Welders, Cutters, Solderers, and Brazers	255	2.3%	Y	7.3%	.0%	3.7%	41.5%	Y	7.7%	15.4%
51-9161	Computer Numerically Controlled Tool Operators	203	2.3%		9.1%	1.5%	7.7%	47.7%	Y		
51-9111	Packaging and Filling Machine Operators and Tenders	187	2.4%	Y	19.1%	12.9%	52.4%	51.5%			
51-9199	Production Workers, All Other	183	2.6%	Y	14.4%	6.5%	30.1%	47.1%			
	<b>All Manufacturing Careers</b>	<b>9,739</b>	<b>2.0%</b>		<b>11.2%</b>	<b>4.1%</b>	<b>23.6%</b>	<b>52.2%</b>			
	<b>Total – All Occupations</b>	<b>140,319</b>	<b>1.9%</b>		<b>13.2%</b>	<b>4.1%</b>	<b>48.6%</b>	<b>46.8%</b>		<b>31.7%</b>	<b>62.1%</b>

Source: Chmura JobsEQ 2022Q3 Dataset. Names of Industry NAICS or Occupation SOC may be abbreviated. Talent shortage is estimated based on historical talent pipelines in the region, typical job changes, and the likelihood of retirements. Red highlighting indicates lower than overall share of workforce or graduate pool, or existence of occupation or award gap.

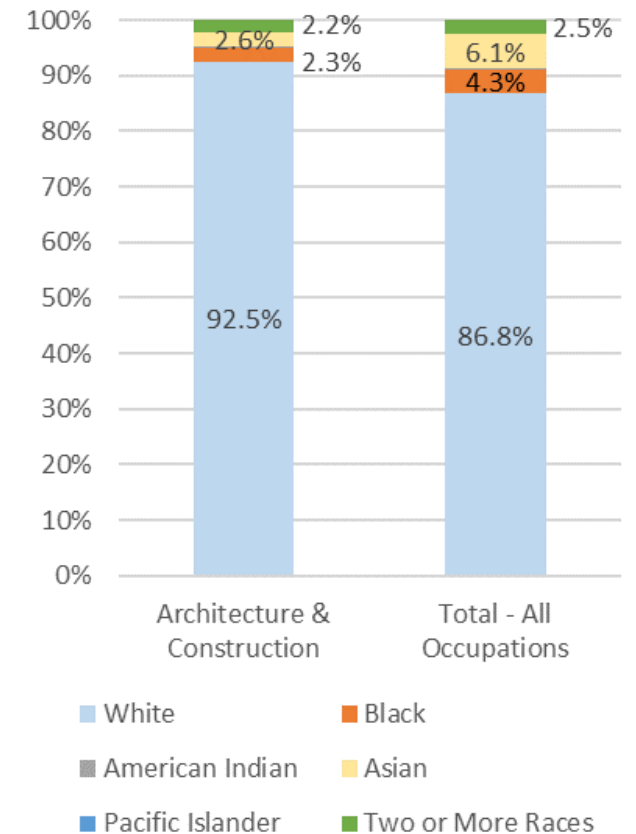
# Architecture and Construction Cluster

Ninety-two and a half percent of talent working in Architecture and Construction roles in Washington County are White, and the same percentage are male. With such low overall racial and gender diversity, and an older-than-average workforce, this is a career cluster ripe for interventions to bring more diverse young people into this highly-skilled high-wage pathway.

## Key Findings

- Four local programs exist at Century College aligned to this pathway, preparing students for careers in HVAC maintenance, property maintenance, and renewable energy. However, there are many other in-demand careers that do not have local post-high school programming
- Carpenters, Electricians, and Construction Managers are all experiencing local talent shortages and award gaps in Washington County
- There are double the share of Hispanic and Latinx workers in Architecture and Construction careers than observed in Washington County's workforce overall (8.9% compared to 4.1% overall), with the highest overrepresentation of Hispanic and Latinx talent as Painters, Landscapers, and Construction Laborers

Architecture and Construction Talent Demographics by Race





# Architecture and Construction Talent Demographics

Workforce and Graduate Demographics of the Top Fifteen Occupations of Employment in Architecture and Construction

SOC	Occupation	2022Q3 Empl	Unempl Rate	Talent Shortage	Workforce BIPOC by Race	Workforce Hispanic/Latinx	Workforce Female	Workforce 45+	Award Gap	SY2021 Graduates BIPOC by Race or Ethnicity	SY2021 Graduates Female
47-2031	Carpenters	912	2.4%	Y	6.3%	10.7%	2.9%	45.2%	Y		
47-2061	Construction Laborers	859	3.6%		7.3%	14.8%	4.2%	41.8%			
37-3011	Landscaping and Groundskeeping Workers	837	2.4%		7.2%	14.1%	5.8%	43.7%			
47-1011	Supervisors of Construction and Extraction Workers	454	1.1%	Y	4.1%	5.4%	3.7%	55.8%	Y		
47-2111	Electricians	422	1.8%	Y	6.1%	5.3%	1.6%	47.0%	Y		
11-9021	Construction Managers	362	1.3%	Y	4.1%	3.3%	7.7%	57.0%	Y		
47-2152	Plumbers, Pipefitters, and Steamfitters	313	2.4%	Y	6.6%	5.8%	2.1%	46.5%	Y		
17-2051	Civil Engineers	278	1.3%		15.0%	2.4%	14.3%	48.1%	Y		
49-9021	HVAC and Refrigeration Mechanics and Installers	215	0.9%	Y	6.1%	6.7%	10.4%	53.0%		26.2%	3.3%
47-2073	Operating Engineers and Equipment Operators	211	4.0%	Y	5.1%	5.0%	3.4%	54.1%			
13-1051	Cost Estimators	198	1.0%		6.4%	2.0%	13.7%	56.9%	Y		
47-4051	Highway Maintenance Workers	173	2.9%	Y	6.2%	3.6%	3.7%	62.4%			
47-2141	Painters, Construction and Maintenance	152	2.7%	Y	6.2%	21.2%	10.1%	47.8%			
17-1011	Architects, Except Landscape and Naval	129	1.3%		16.6%	1.6%	25.7%	50.3%	Y		
17-3022	Civil Engineering Technologists and Technicians	113	1.2%		10.3%	3.3%	19.8%	53.4%	Y		
	<b>All Architecture and Construction Careers</b>	<b>6,986</b>	<b>2.3%</b>		<b>7.5%</b>	<b>8.9%</b>	<b>7.4%</b>	<b>48.0%</b>			
	<b>Total – All Occupations</b>	<b>140,319</b>	<b>1.9%</b>		<b>13.2%</b>	<b>4.1%</b>	<b>48.6%</b>	<b>46.8%</b>		<b>31.7%</b>	<b>62.1%</b>

Source: Chmura JobsEQ 2022Q3 Dataset. Names of Industry NAICS or Occupation SOC may be abbreviated. Talent shortage is estimated based on historical talent pipelines in the region, typical job changes, and the likelihood of retirements. Red highlighting indicates lower than overall share of workforce or graduate pool, or existence of occupation or award gap.



# 06. Summary

## Diversity is an opportunity

Washington County's young population is more diverse than the existing workforce and a future asset to local businesses

## Top industries of need have diversity challenges

There is an overrepresentation of female talent in Healthcare careers, while both Manufacturing and Construction careers have significant overrepresentation of male talent; All three sectors see low diversity by race and ethnicity, particularly in the most high-wage, high-demand local careers

## Growth will continue

Demographics are on the county's side and growth of the local population is forecast to be higher than most other parts of Minnesota at about 1.1% growth annually

## More post-high school programming is needed

Local institutions in Washington County that offer post-high school education and training meet an impressive number of local Gateway Career talent needs; However, there are numerous examples of gaps in local programming to meet the needs of employers based in Washington County



# Next Steps

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Washington County is poised for growth, if it can leverage its available workforce effectively and attract talent to fill critical workforce needs. An accompanying labor market demand study showcases the county's total talent needs with a deep-dive into the occupations of greatest demand in Healthcare, Manufacturing, and Construction.

Working forward together,

**RealTime Talent**

[erin@realtimetalentmn.org](mailto:erin@realtimetalentmn.org)



# Author of this Report



**Erin Olson, MURP, MPH**

Senior Director of Strategic Research,  
RealTime Talent

# FAQ Regarding Data and Methodology

## What is a location quotient?

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

## What is a cluster?

A cluster is a geographic concentration of interrelated industries or occupations. If a regional cluster has a location quotient of 1.25 or greater, the region is considered to possess a competitive advantage in that cluster.

## What is separation demand?

Separation demand is the number of jobs required due to separations—labor force exits (including retirements) and turnover resulting from workers moving from one occupation into another. Note that separation demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The total projected demand for an occupation is the sum of the separation demand and the growth demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

## What is the difference between industry wages and occupation wages?

Industry wages and occupation wages are estimated via separate data sets, often the time periods being reported do not align, and wages are defined slightly differently in the two systems (for example, certain bonuses are included in the industry wages but not the occupation wages). It is therefore common that estimates of the average industry wages and average occupation wages in a region do not match exactly. Annual average wages per worker and 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 2022Q2 with preliminary estimates updated to 2022Q3.

## What is NAICS?

The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top-level category, known as the “sector,” which is the level examined in this report.



# FAQ Regarding Data and Methodology - Continued

## Where does the data on Gross Domestic Product (GDP) come from?

Gross Domestic Product data are provided by the Bureau of Economic Analysis, imputed by Chmura where necessary, updated through 2021.

## What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 804 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 22 major groups, 95 minor groups, and 452 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

## Where can I learn more about the sources that were used in this report?

**Lightcast** offers a suite of labor market data analysis tools that are used to analyze candidate profiles and educational data from NCES IPEDS to track program graduate data and estimate talent pool availability. These tools scrape millions of candidate profiles and model skills, credentials, and employment experience to link where talent is located to where talent is in demand.

**Chmura JobsEQ** is a labor market data analysis tool that provides employment, unemployment, and education data from sources like the Bureau of Labor Statistics, Census Bureau, and NCES IPEDS and models this data at detailed geographic levels. This tool is utilized by RealTime Talent to model alternate forecasts impacted by COVID-19 to show possible future-state talent gaps, award gaps, and optimistic employment growth.

## Who created this report?

This report was developed by RealTime Talent for the Transportation Center of Excellence. If you have questions about the data found in this report, or are interested in learning more, please contact the Senior Director of Strategic Research, Erin Olson at [erin@realtimetalentmn.org](mailto:erin@realtimetalentmn.org) or visit the RealTime Talent website at [www.realtimetalent.org](http://www.realtimetalent.org)

Labor Market title page graphic: Roger Spooner/Getty Images

Articles cited in the introduction: 1. US Chamber of Commerce. Understanding America's Labor Shortage. Feb 22, 2023. Accessed at <https://www.uschamber.com/workforce/understanding-americas-labor-shortage> 2. US Chamber of Commerce. Understanding America's Labor Shortage: The most Impacted States. Feb 1, 2023. Accessed at <https://www.uschamber.com/workforce/the-states-suffering-most-from-the-labor-shortage?state=mn>



## STAFF REPORT

DATE: August 15, 2023

**REGULAR**

**AGENDA ITEM:** Business Retention and Expansion Survey Updates

**SUBMITTED BY:** Kristina Handt, City Administrator

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### **BACKGROUND:**

Conducting a Business Retention and Expansion Survey (BRE), has been identified as the top goal for the EDA for 2022 and 2023. The EDA finalized the survey questions and decided to begin by meeting with businesses in the Old Village area last year. At the August 2022 meeting, it was decided to move on to contacting businesses south of 10<sup>th</sup> St between Inwood Ave and Keats Ave.

### **ISSUE BEFORE COMMITTEE:**

What feedback do members have from their business visits since May?

### **PROPOSAL DETAILS/ANALYSIS:**

Only one business visit has been completed since our last meeting. Responses below:

1. Coffee and specialty espresso drinks, other beverages, pastries, roasted coffee beans to take out, or shipped by mail
2. 4 FT: owners and one other FT, and 5 PT
3. Would like to expand at this location with additional menu items and possibly a larger outdoor seating area.
4. Challenges:
  - a. attracting talent - would like to hire experienced baristas
  - b. training - if they hire inexperienced help, they need to train the new employees
  - c. ok
  - d. ok
  - e. ok
  - f. ok
  - g. concern about Lake Elmo City water with recent publication of news articles (can they serve drinking water from the faucet?)  
<https://www.kare11.com/article/news/local/water-issues-plague-booming-lake-elmo/89-3d857882-8fcd-4df7-8504-21014f280c6e>
  - h. ok
  - i. Other - ok
5. complementary businesses would be affordable lunch provider, ice cream shop, etc they are "plenty busy" now but are concerned about lower traffic in the colder months.
6. Short-term assistance -  
Useful amenities would be bike racks and especially a safe crossing of Highway 14 at the Gorman's / Lake Elmo Elementary School point . Did not feel the need for larger signs or off-site advertising. They are doing OK with Social Media

7. Longer term strategic planning suggestions

Create a safe pedestrian and bicycle crossing of Highway 14

Create a community gathering space (such as a bandshell or covered patio) in the downtown area

Streetside beautification along Main Street

**RECOMMENDATIONS:**

Provide verbal updates at the meeting on BRE visits

**ATTACHMENT:**

- None