Washington County Labor Supply Study

Washington County CDA

Developed by RealTime Talent

March 29, 2023

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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.[1] 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.[2] 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.

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1. US Chamber of Commerce. Understanding America's Labor Shortage. Feb 22, 2023. 2. US Chamber of Commerce. Understanding America's Labor Shortage: The most Impacted States. Feb 1, 2023.

02. Community Overview

Regional Demographics – Age and Gender

	Percent			Value		
	Washington County, Minnesota	Minnesota	USA	Washington County, Minnesota	Minnesota	USA
Demographics						
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[2]	—	—	—	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
Population Growth						
Population (Pop Estimates)[4]	—	—	—	265,476	5,657,342	329,484,123
Population Annual Average Growth[4]	1.1%	0.6%	0.6%	2,654	34,641	2,015,698
People per Square Mile	—	—	—	682.9	70.8	92.9
Economic						
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[2]	—	—	—	$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.

Washington County Labor Supply Study   March 2023   Source: US Census Bureau American Community Survey 2016-2020 5-Year Estimates. Current population estimate at 277,283.

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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

% Hispanic

Washington County, Minnesota — 86.8%	4.1%
Northern Washington County — 92.8%	2.8%
Central Washington County — 88.6%	4.5%
Southern Washington County — 83.6% (8.3%)	4.3%

Legend:
- White (86.8%)
- Black (4.3%)
- American Indian (0.2%)
- Asian (6.1%)
- Pacific Islander (0.1%)
- Two or More Races (2.5%)
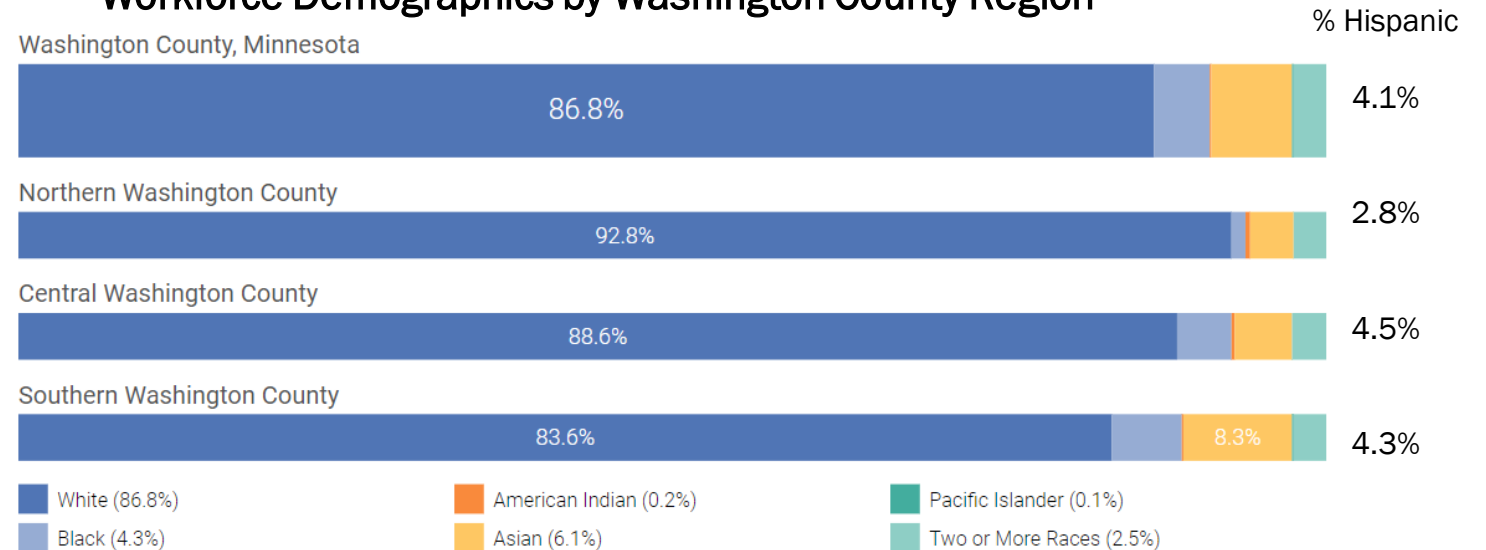
Population Race, Ethnicity, Foreign Born, and Veteran Status by Region

	% 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%

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Source: Chmura JobsEQ 2022Q3 Dataset.

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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+
Total Population	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+
Total Population	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."
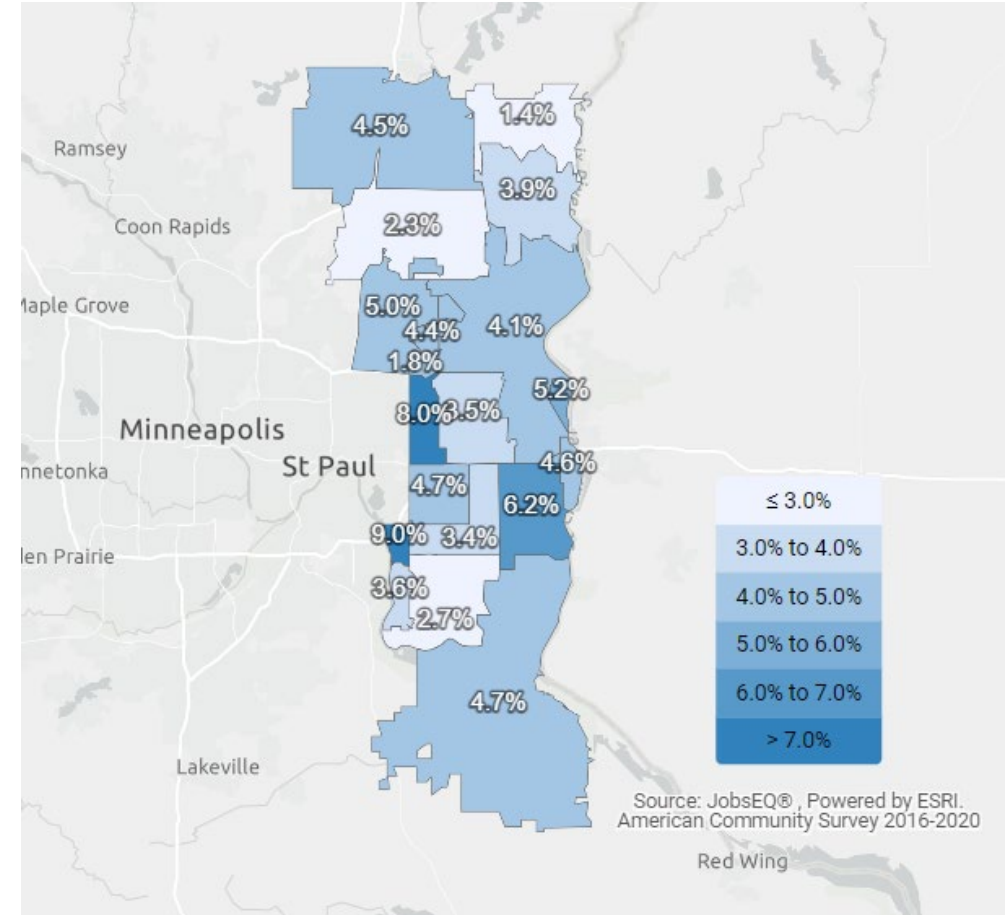
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Income and Wages

Percent of Population At or Below the Federal Poverty Level

Quarterly Wages for Stable Hires in Washington County

$5,675 — White Alone
$4,934
$4,125 — Black or African American Alone
$3,880
$3,631

American Indian or Alaska Native Alone

Asian Alone

Native Hawaiian or Other Pacific Islander Alone

Source: JobsEQ®, Powered by ESRI.
American Community Survey 2016-2020

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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
Housing						
Total Housing Units	—	—	—	99,696	2,458,030	138,432,751
Median House Value (of owner-occupied units)[2]	—	—	—	$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
Social						
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[3]	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

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03. Labor Force Overview

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

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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

277,283
Population (2022)
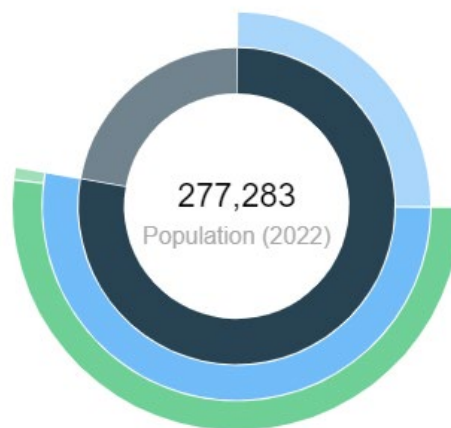
	Population
16+ Civilian Non-Institutionalized Population	215,494
Not in Labor Force (16+)	69,318
Labor Force	146,176
Employed	143,635
Unemployed	2,541
Under 16, Military, and institutionalized Population	61,789

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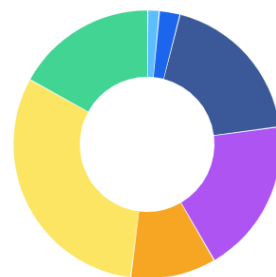
	% of Population	Population
Less Than 9th Grade	1.4%	2,652
9th Grade to 12th Grade	2.5%	4,722
High School Diploma	18.9%	35,778
Some College	18.8%	35,468
Associate's Degree	10.3%	19,557
Bachelor's Degree	31.1%	58,737
Graduate Degree and Higher	17.0%	32,250

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%)

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Source: Lightcast 2023Q1 Dataset.

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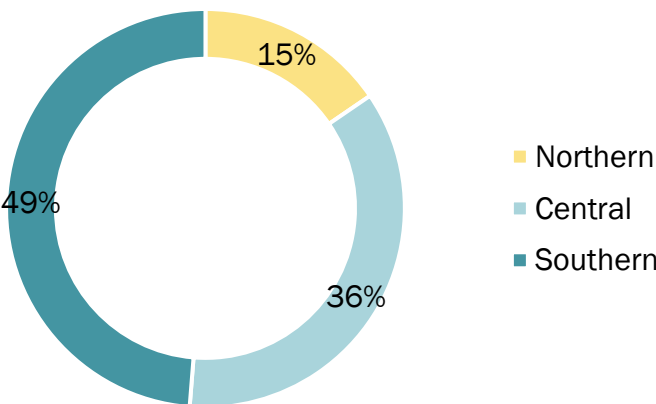Using data to build the world's best workforce

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).

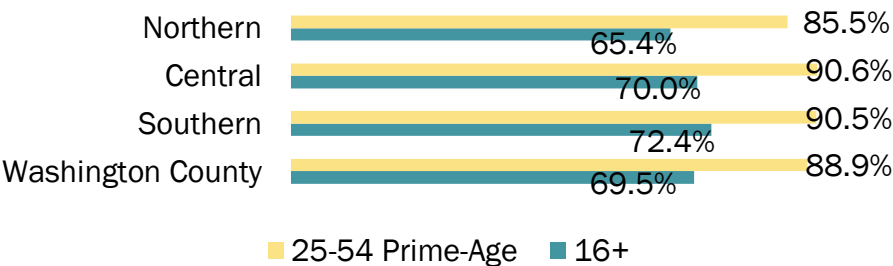The Southern and Central regions have the highest overall labor force participation rates.

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

- Northern: 15%
- Central: 36%
- Southern: 49%

Civilian Labor Force Participation Rate by Region

Region	25-54 Prime-Age	16+
Northern	85.5%	65.4%
Central	90.6%	70.0%
Southern	90.5%	72.4%
Washington County	88.9%	69.5%

Map of Washington County

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Source: Chmura JobsEQ 2022Q3 Dataset.

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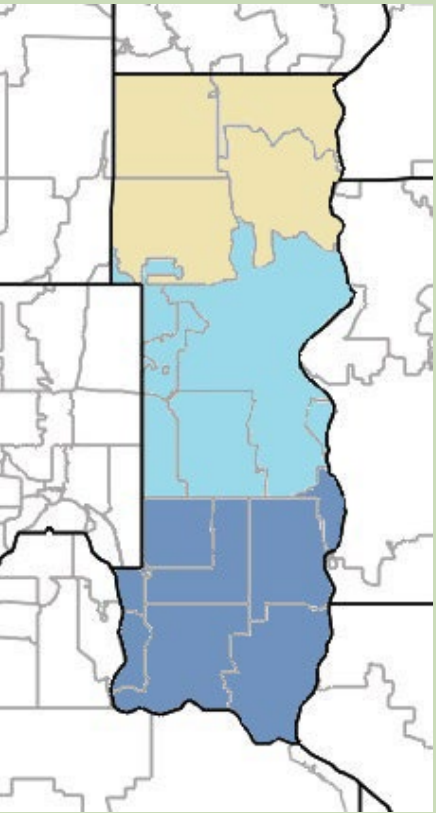
Unemployment and Underemployment

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.

		Empl (Place of Work)		Overall Occupation		
SOC	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%
	Total - All Occupations	**23,146**	**99,098**	**$58,000**	**0.9%**	**1.9%**

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Source: Chmura JobsEQ 2022Q3 Dataset.

04. Post-High School Education

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%

1,929 Completions

Awards Conferred at Washington County Schools by Program, SY2021
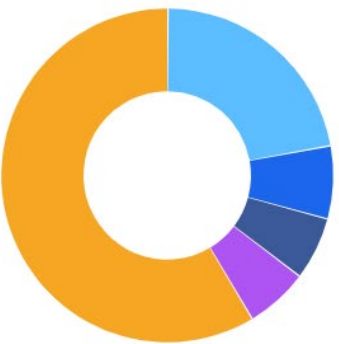
Program	Completions (2021)	Market Share
Liberal Arts and Sciences, General Studies and Humanities (24.01)	426	22.1%
Cosmetology and Related Personal Grooming Services (12.04)	136	7.1%
Dental Support Services and Allied Professions (51.06)	118	6.1%
Allied Health and Medical Assisting Services (51.08)	118	6.1%
Other	1,131	58.6%

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Source: Lightcast 2023Q1 Dataset. NCES IPEDS 2021.

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Century College Freshmen Attraction

2020 Freshmen Home State Map
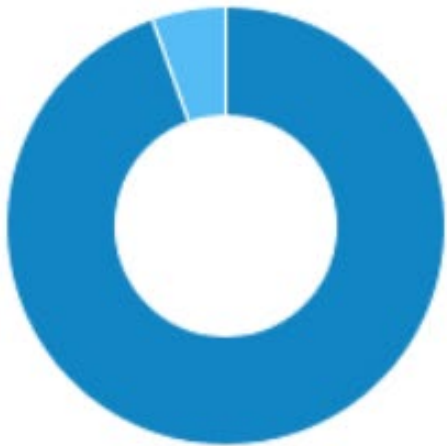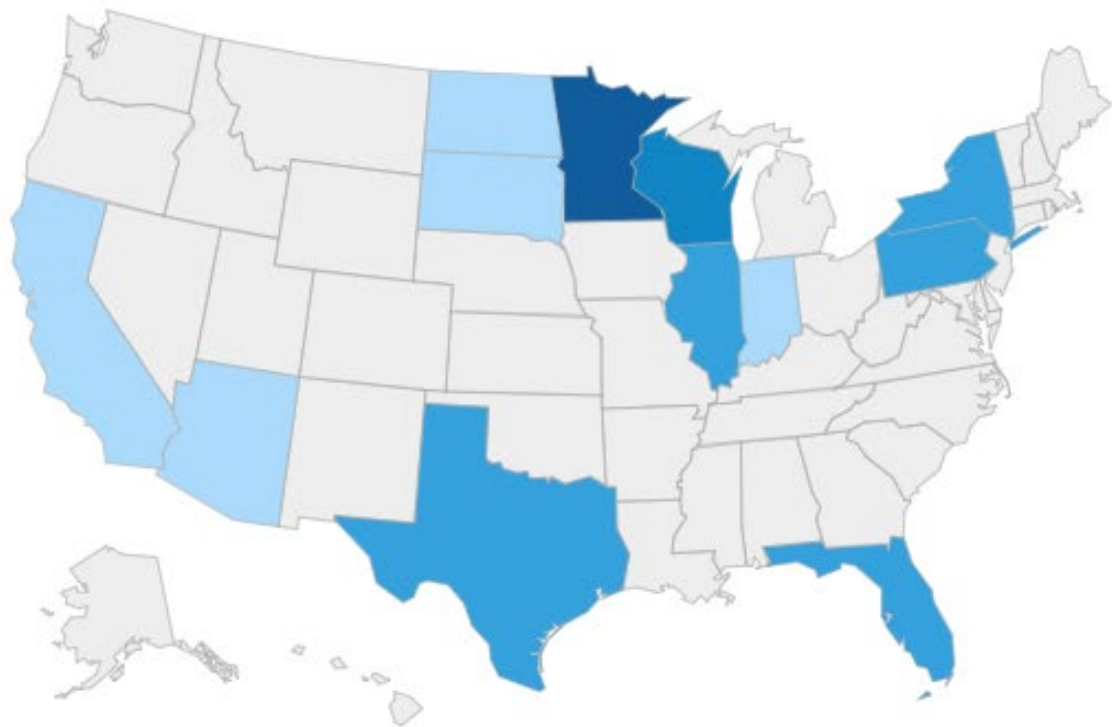
In State : 988 (94.55%)
Out of State : 57 (5.45%)

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.

Washington County Labor Supply Study   March 2023   Source: Lightcast 2023Q1 Dataset.

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
	Total	**190**	**118**	**296**	**19**	**623**

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%

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

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Source: NCES IPEDS award data, SY2021. Century College and MN School of Cosmetology – Woodbury.

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
	Total	**26**	**1**	**48**	**0**	**75**

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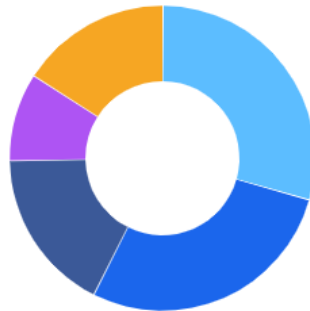
Program	Completions (2021)	Market Share
Drafting/Design Engineering Technologies/Technicians (15.13)	22	29.3%
Engineering, General (14.01)	21	28.0%
Precision Metal Working (48.05)	13	17.3%
Computer Engineering Technologies/Technicians (15.12)	7	9.3%
Other	12	16.0%

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

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Source: NCES IPEDS award data, SY2021. Century College and MN School of Cosmetology – Woodbury.

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
	Total	3	48	24	0	75

Awards Conferred in Construction Pathways

75 Total SY2021 Awards
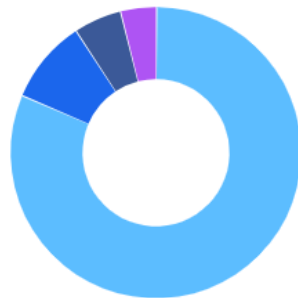
0 Awards from Distance-Offered Programs

-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%

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Source: NCES IPEDS award data, SY2021. Century College and MN School of Cosmetology – Woodbury.

05. Talent
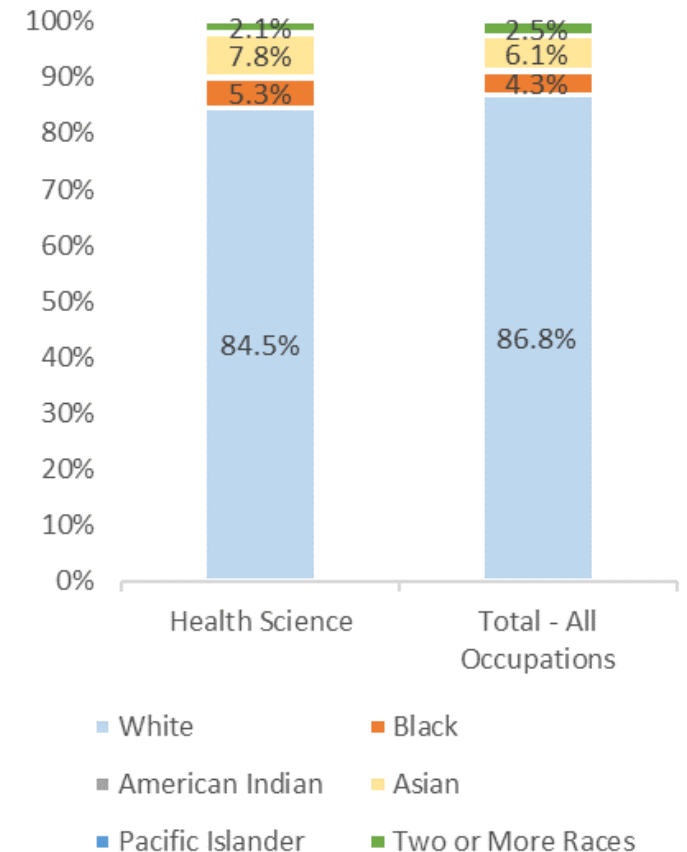Demographics

Health Science Cluster

Health Science Talent Demographics by Race

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: White 84.5%, Black 5.3%, Asian 7.8%, Two or More Races 2.1%

Total - All Occupations: White 86.8%, Black 4.3%, Asian 6.1%, Two or More Races 2.5%

Legend: White, Black, American Indian, Asian, Pacific Islander, Two or More Races

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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		
	All Health Science Careers	**13,729**	**1.0%**		**15.5%**	**3.1%**	**76.2%**	**47.1%**			
	Total – All Occupations	**140,319**	**1.9%**		**13.2%**	**4.1%**	**48.6%**	**46.8%**		**31.7%**	**62.1%**

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.
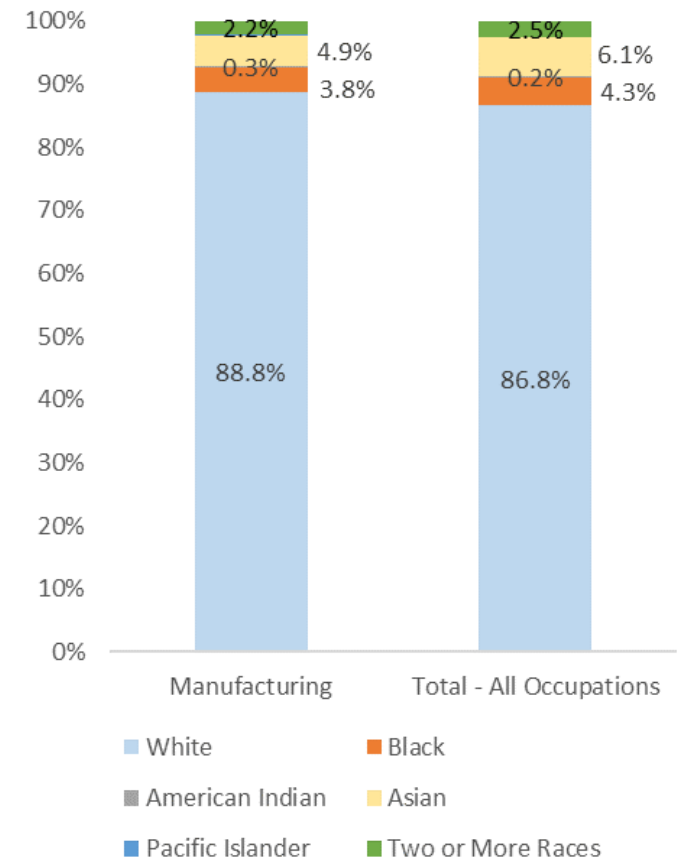
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Manufacturing Cluster

Manufacturing Talent Demographics by Race

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)

Chart legend: White, Black, American Indian, Asian, Pacific Islander, Two or More Races

Manufacturing: 2.2%, 0.3%, 4.9%, 3.8%, 88.8%
Total - All Occupations: 2.5%, 0.2%, 6.1%, 4.3%, 86.8%

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

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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%			
	All Manufacturing Careers	**9,739**	**2.0%**		**11.2%**	**4.1%**	**23.6%**	**52.2%**			
	Total – All Occupations	**140,319**	**1.9%**		**13.2%**	**4.1%**	**48.6%**	**46.8%**		**31.7%**	**62.1%**

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.

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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
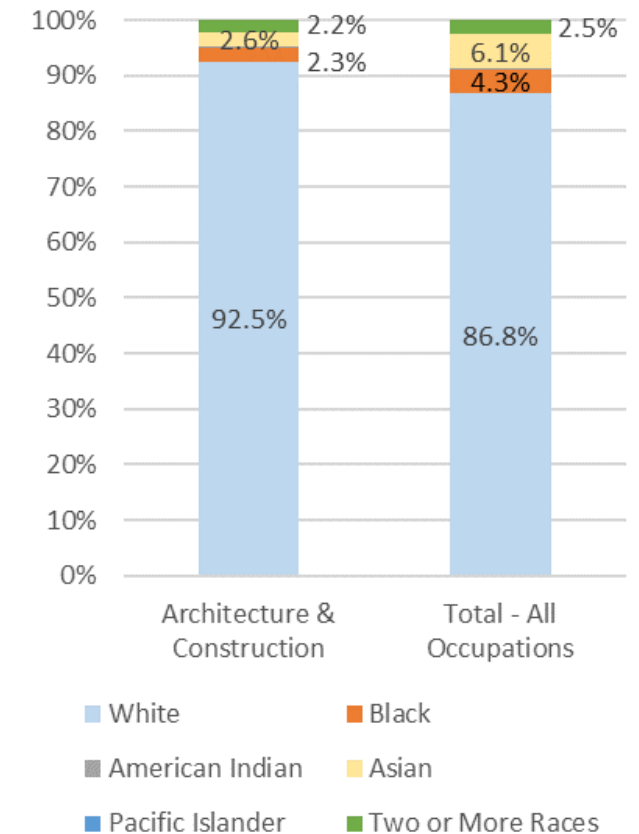
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Architecture and Construction Talent Demographics

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		
	All Architecture and Construction Careers	**6,986**	**2.3%**		**7.5%**	**8.9%**	**7.4%**	**48.0%**			
	Total – All Occupations	**140,319**	**1.9%**		**13.2%**	**4.1%**	**48.6%**	**46.8%**		**31.7%**	**62.1%**

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.

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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

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

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Author of this Report

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RealTime Talent

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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 or visit the RealTime Talent website at 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