

# ***COLLISION REPAIR***

## **2023 Supply & Demand Analysis Overview**

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**MINNESOTA STATE**  
Transportation Center of Excellence

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# Introduction and Sector Overview

This report highlights the importance of the Collision Repair career pathway for Minnesota’s Transportation Industry. Professionals in Collision Repair work in diverse roles from autobody repairers and glass installers to autobody painting, serving industries as diverse as Navigational Manufacturing and Automobile Dealerships. In all, about 7,307 people work in Collision Repair roles in Minnesota as of the second quarter of 2023—an increase of 550 workers from a year prior.

Overall employment in Minnesota grew by nearly 60,301 workers (2.0%) between the second quarter of 2022 and the second quarter of 2023. Over the past five years, employment grew by about 11,603 workers, or an 0.1% average annual growth in total employment. Over the next five years, overall employment is forecast to remain flat (0.0% average annual growth), while all Transportation Occupations together forecast moderate growth of 0.1% average annual growth. During this time frame, Collision Repair employment is anticipated to decline slightly in Minnesota, declining by 77 total jobs (-0.2% annually) due to a tight talent pool. Total baseline demand for Collision Repair talent is anticipated to be around 3,442 professionals needed to fill positions due to job exits and transfers, such as retirements and job changes.

Occupation	Current					5-Year History		5-Year Baseline Forecast				
	Empl	Avg Ann Wages <sup>2</sup>	LQ	Unempl	Unempl Rate	Empl Change	Ann % Change	Total Demand	Exits	Transfers	Empl Change	Ann % Change
Automotive Technology Pathway	20,884	\$68,300	0.97	236	1.1%	-586	-0.6%	9,072	3,184	5,828	60	0.1%
Aviation and Drone Technology Pathway	9,370	\$125,500	0.87	135	1.5%	69	0.1%	4,559	1,602	2,976	-19	0.0%
Collision Repair Pathway	7,307	\$52,800	1.10	227	3.1%	188	0.5%	3,442	1,213	2,305	-77	-0.2%
Diesel Equipment and Truck Pathway	12,161	\$64,200	1.01	153	1.3%	152	0.3%	5,635	1,954	3,724	-43	-0.1%
Marine and Power Sports Pathway	4,284	\$48,700	0.84	159	3.7%	68	0.3%	2,574	926	1,673	-25	-0.1%
Truck Driving Pathway*	97,603	\$51,800	0.95	3,280	3.3%	2,561	0.5%	61,265	26,466	33,538	1,261	0.3%
<b>Transportation Occupations</b>	<b>133,108</b>	<b>\$60,700</b>	<b>0.93</b>	<b>3,418</b>	<b>2.6%</b>	<b>3,212</b>	<b>0.5%</b>	<b>73,669</b>	<b>27,527</b>	<b>45,162</b>	<b>981</b>	<b>0.1%</b>
<b>Total - All Occupations</b>	<b>3,075,767</b>	<b>\$66,100</b>	<b>1.00</b>	<b>87,730</b>	<b>2.9%</b>	<b>11,603</b>	<b>0.1%</b>	<b>1,746,576</b>	<b>727,900</b>	<b>1,016,920</b>	<b>1,756</b>	<b>0.0%</b>

\*This pathway includes School Bus Driver careers as of 2022, which were not included in the 2020 or 2021 estimates of career pathway employment or demand.

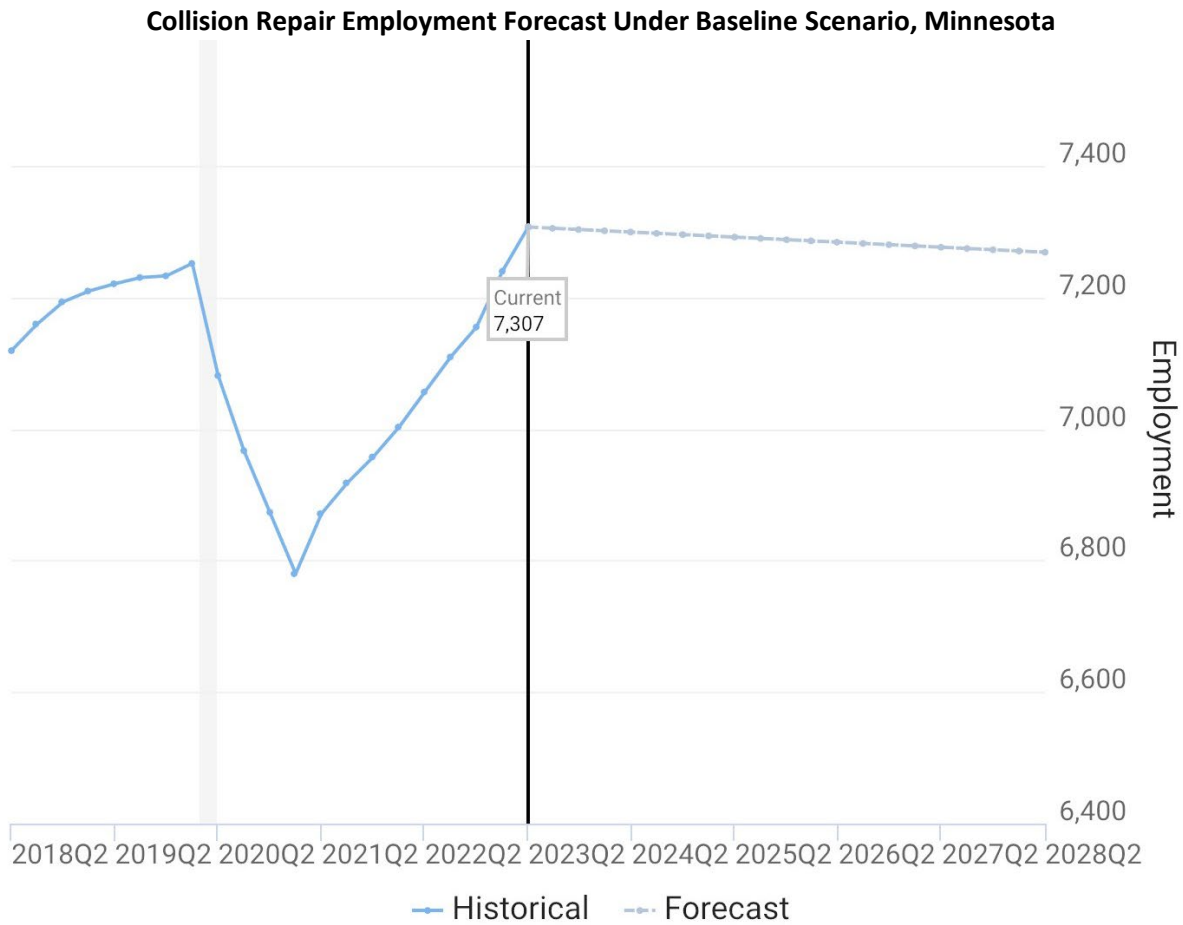
Source: [JobsEQ®](#)

Data as of 2023Q2 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Data based on a four-quarter moving average unless noted otherwise.
2. Wage data represent the average for all Covered Employment
3. Data represent found online ads active within the last thirty days in the selected region; data represents a sampling rather than the complete universe of postings. Ads lacking zip code information but designating a place (city, town, etc.) may be assigned to the zip code with greatest employment in that place for queries in this analytic. Due to alternative county-assignment algorithms, ad counts in this analytic may not match that shown in RTI (nor in the popup window ad list).

Minnesota’s job market cooled somewhat in 2023 from 2021 and 2022’s relatively strong recovery. Unemployment rates have begun to rise again as the market stabilizes and shifts in response to new realities. Forecasting future needs under current conditions with an eye to anticipated talent pipelines into Collision Repair suggest that there may be shortages of talent across a large share of occupations in this career pathway unless more talent decides to enter the field. The pathway forecast has soured since estimates in late 2020, with a baseline forecast of about -0.2% average annual decline in overall employment through the second quarter of 2028. Continuing an initially strong recovery in early 2021 and 2022, 2023 saw strong employment gains in this pathway (an increase of 3.6% from the prior year).



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

# Industry/Occupation Mix

Collision Repair talent is primarily concentrated in the Automotive Repair and Maintenance industry (45.6%), increasing in its concentration from estimates in 2022 by 0.4 percentage points. The next highest industry of employment concentration is Automobile Dealers (7.4%), followed by general Coating, Engraving, Heat Treating, and Allied Activities as well as Architectural and Structural Metals Manufacturing employers. These top industries (Automotive Repair and Maintenance, Automobile Dealers, and Coating, Engraving, Heat Treating, and Allied Activities) account for the most total demand for this talent over the next ten years.

## Top Industry Distribution for Collision Repair Pathway Occupations in Minnesota

NAICS Code	Industry Title	CURRENT		10-YEAR DEMAND				Total Demand
		% of Occ Empl	Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	
8111	Automotive Repair and Maintenance	45.6%	3,333	\$56,500	1,199	2,010	11	3,220
4411	Automobile Dealers	7.4%	542	\$52,900	194	299	-59	434
3328	Coating, Engraving, Heat Treating, and Allied Activities	5.8%	426	\$43,800	124	286	-23	388
3323	Architectural and Structural Metals Manufacturing	3.4%	249	\$50,900	75	173	3	251
3339	Other General Purpose Machinery Manufacturing	2.6%	190	\$50,900	57	131	-1	187
3399	Other Miscellaneous Manufacturing	2.0%	146	\$50,900	43	99	-5	137
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.0%	146	\$50,900	42	97	-9	131
3219	Other Wood Product Manufacturing	1.6%	117	\$43,300	35	81	1	117
3331	Agriculture, Construction, and Mining Machinery Manufacturing	1.6%	117	\$50,900	35	79	-3	111
3362	Motor Vehicle Body and Trailer Manufacturing	1.6%	115	\$48,800	35	78	-1	111
3222	Converted Paper Product Manufacturing	1.3%	94	\$56,700	26	61	-11	76
5613	Employment Services	1.2%	90	\$39,700	27	61	1	90
3261	Plastics Product Manufacturing	1.2%	86	\$43,900	26	60	1	87
3369	Other Transportation Equipment Manufacturing	1.1%	83	\$52,700	22	50	-20	52
3329	Other Fabricated Metal Product Manufacturing	1.1%	78	\$50,900	23	53	-2	75
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	1.0%	77	\$52,400	27	45	-3	69
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1.0%	73	\$46,000	22	50	0	72
3391	Medical Equipment and Supplies Manufacturing	1.0%	70	\$52,300	21	49	2	72
3332	Industrial Machinery Manufacturing	0.9%	68	\$50,900	20	47	0	67
3324	Boiler, Tank, and Shipping Container Manufacturing	0.8%	62	\$50,900	19	43	1	63
-	All Others	15.7%	1,146	-	351	758	-36	1,073

Source: JobsEQ®  
 Data as of 2023Q2. Note that occupation-by-industry wages represent adjusted national data and may not be consistent with regional, all-industry occupation wages shown elsewhere in JobsEQ.  
 Note: Figures may not sum due to rounding.

# Talent Demand Detail

## Employment and Wage Overview

Of the three occupations found in the Collision Repair pathway, Coating, Painting, and Spraying Machine Setters, Operators, and Tenders are uniquely concentrated in Minnesota to a higher degree than seen in the nation overall with a location quotient of 1.17. On average, Collision Repair careers pay about \$52,800 (a decrease from \$54,100 last year)—about \$13,300 below than the average wage statewide across all positions. Each of the occupations in the Collision Repair pathway is forecasted to decline over the next five years, due in large part to the local talent shortage.

		Current					5-Year Baseline Forecast				
SOC	Occupation	Empl	Avg Ann Wages <sup>2</sup>	LQ	Unempl	Unempl Rate	Total Demand	Exits	Transfers	Empl Change	Ann % Change
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	3,826	\$50,900	1.16	148	3.8%	1,815	566	1,301	-52	-0.3%
49-3021	Automotive Body and Related Repairers	3,076	\$55,200	1.05	70	2.3%	1,441	595	869	-23	-0.1%
49-3022	Automotive Glass Installers and Repairers	405	\$53,100	0.96	9	2.1%	185	52	135	-2	-0.1%
<b>Collision Repair Pathway</b>		<b>7,307</b>	<b>\$52,800</b>	<b>1.10</b>	<b>227</b>	<b>3.1%</b>	<b>3,442</b>	<b>1,213</b>	<b>2,305</b>	<b>-77</b>	<b>-0.2%</b>
<b>Total - All Occupations</b>		<b>3,075,767</b>	<b>\$66,100</b>	<b>1.00</b>	<b>87,730</b>	<b>2.9%</b>	<b>1,746,576</b>	<b>727,900</b>	<b>1,016,920</b>	<b>1,756</b>	<b>0.0%</b>

Source: [JobsEQ®](#)

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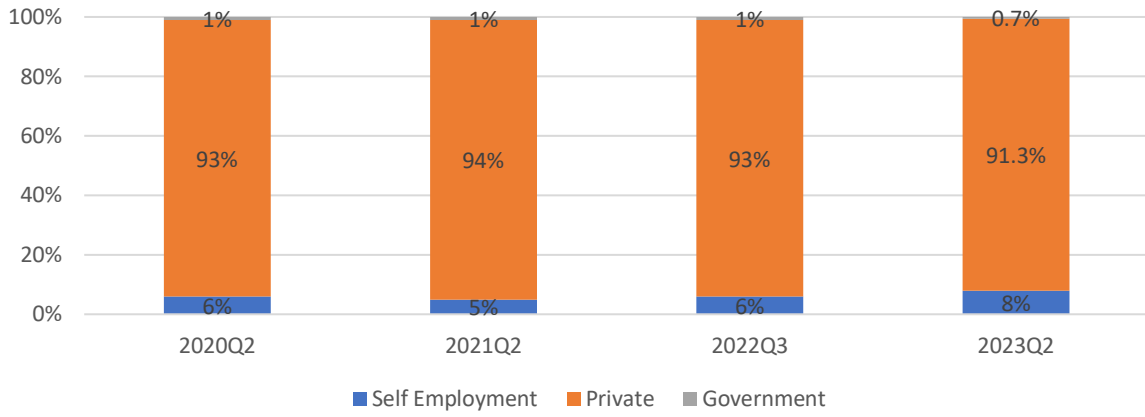
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## Employment Types

About 91.3% (down from last year's 93%) of people employed in Collision Repair careers in Minnesota work for private employers, while an estimated 8% are self-employed (a slight increase from 2022). The remaining 0.7% work for state, federal, or local government entities.

### Employment Types, Minnesota 2020-2023



## Wage Analysis

The Collision Repair pathway overall saw declines in average wages, with average wages declining by \$1,300. <sup>1</sup> Two out of the three occupations within this pathway saw declines in average wages, while Automotive Glass Installers and Repairers saw an increase of \$4,300 from 2022Q3 estimates. Entry-level wages in the pathway exceed the average entry-level wages observed across all occupations statewide by over \$5,000, paying an average of \$37,900 annually for entry-level talent. Education and training requirements are similar across the different occupations in this pathway, with each occupation requiring a High School Diploma or equivalent and either long-term or moderate-term on the job training.

### Collision Repair Pathway Wages and Experience Level Requirements, MN, 2023Q2

SOC	Occupation	Empl Count	Mean	Entry Level	Experienced	Percentiles					Education and Training		
						10%	25%	50% (Median)	75%	90%	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
49-3021	Automotive Body and Related Repairers	3,826	\$55,200	\$38,300	\$63,600	\$35,300	\$44,000	\$53,000	\$64,700	\$76,900	HS/GED	None	Long-term OJT
49-3022	Automotive Glass Installers and Repairers	3,076	\$53,100	\$43,000	\$58,200	\$41,600	\$46,000	\$51,800	\$62,400	\$74,400	HS/GED	None	Mod-term OJT training
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	405	\$50,900	\$37,100	\$57,800	\$35,600	\$40,900	\$48,700	\$58,300	\$67,200	HS/GED	None	Mod-term OJT
<b>16417</b>	<b>Collision Repair Pathway</b>	<b>7,307</b>	<b>\$52,800</b>	<b>\$37,900</b>	<b>\$60,300</b>	<b>\$35,800</b>	<b>\$42,500</b>	<b>\$50,600</b>	<b>\$61,200</b>	<b>\$71,700</b>			
	<b>Total - All Occupations</b>	<b>3,075,767</b>	<b>\$66,100</b>	<b>\$32,800</b>	<b>\$82,700</b>	<b>\$30,300</b>	<b>\$37,500</b>	<b>\$51,700</b>	<b>\$77,900</b>	<b>\$113,000</b>			

Wages in the Collision pathway vary across the three regions of Rural Greater Minnesota, Urban Greater Minnesota, and the 7-county MSP Metro. The MSP Metro region has the highest wages across experience levels and percentiles, and contains 54% of the pathway's total statewide employment. The Rural Greater Minnesota region and the Urban Greater Minnesota region have very close average and median wage rates; Average Collision Repair Pathway wages in the Greater Minnesota regions are just over \$5,000 below the average pathway wages in the MSP Metro.

### Collision Repair Pathway Wages, 2023Q2

Region	Empl Count	Mean	Entry Level	Experienced	Percentiles				
					10%	25%	50% (Median)	75%	90%
Rural Greater Minnesota	2,234	\$49,600	\$35,300	\$56,700	\$33,400	\$39,200	\$48,200	\$59,200	\$67,400
Urban Greater Minnesota	1,029	\$49,700	\$36,200	\$56,500	\$34,000	\$40,500	\$47,300	\$56,900	\$65,400
MSP Metro	3,981	\$55,400	\$40,900	\$62,700	\$39,100	\$45,000	\$52,400	\$63,400	\$74,300
<b>Minnesota</b>	<b>7,307</b>	<b>\$52,800</b>	<b>\$37,900</b>	<b>\$60,300</b>	<b>\$35,800</b>	<b>\$42,500</b>	<b>\$50,600</b>	<b>\$61,200</b>	<b>\$71,700</b>

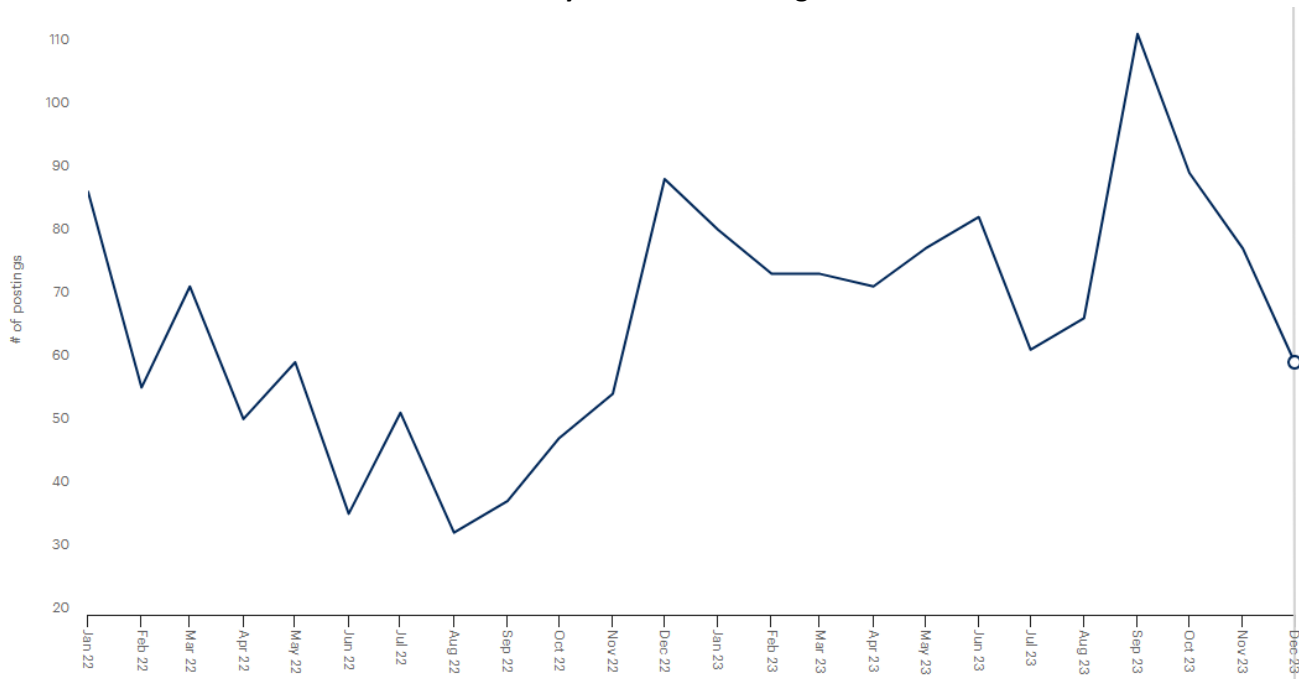
<sup>1</sup> Methodology for estimating wages changed between the 2022 and 2023 reports and are new as of the 2023Q2 dataset used here. They are estimated for the most current quarter of data available (2023Q2) using a combination of data from the Bureau of Labor Statistics and Chmura RTI wages, and no longer lag by a calendar year.



## Job Posting Trends

Data in this section focuses on jobs newly advertised between January 1 and December 31, 2022 in Collision Repair roles across Minnesota. Volume of total job postings, employer types (direct versus staffing), and top employers by unique job posting volumes comes from Gartner TalentNeuron; industry detail, skill and certification analysis, wage trends, and posting to hire analysis are from the Lightcast 2022Q4 dataset. Overall, there were 931 new jobs, an increase of 38% from the prior 12-month period (2022), following what had been a 21% decrease between 2021 and 2022. The share of positions advertised by staffing and temp agencies in the Collision Repair pathway increased in 2023, following a drop in 2022, implying dramatic increases in challenges finding talent in this career pathway and direct employers resorting to using new strategies to find talent. Posted wages increased substantially from the prior year’s estimates, rising to a median hourly rate \$25.05 as of 2023 and there three hires per every one unique job posting advertised based on Lightcast estimates.

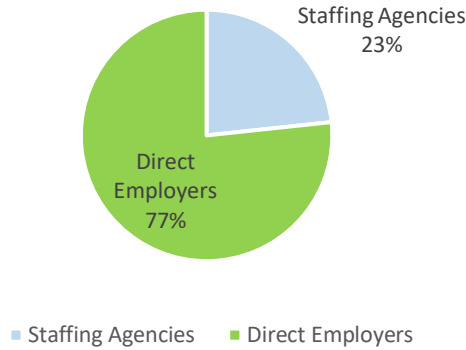
**Volume of Career Pathway Online Job Postings in 2022 and 2023**



**Top Employers by Volume of New Job Postings, With Change from Prior Year**

Employer	Percent Change between 2022 and 2023
1. Caliber Collision Centers	114%
2. Safelite Autoglass	27%
3. John Harris Body Shops	New Entrant
4. Gerber Collision and Glass	New Entrant
5. CNH Industrial	2,300%
6. DOHERTY	229%
7. Dent Wizard	69%
8. Stemper Auto Body	New Entrant
9. Luther Automotive Services	New Entrant
10. Walsler Automotive Group	100%

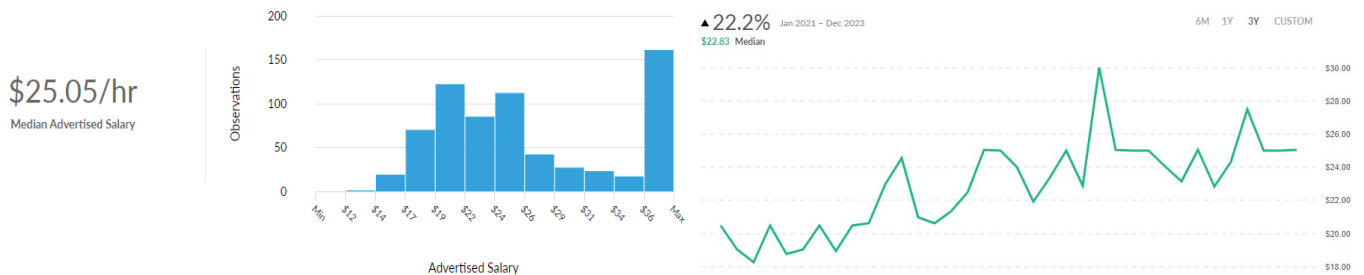
## New Job Postings Advertised in Minnesota by Employer Type



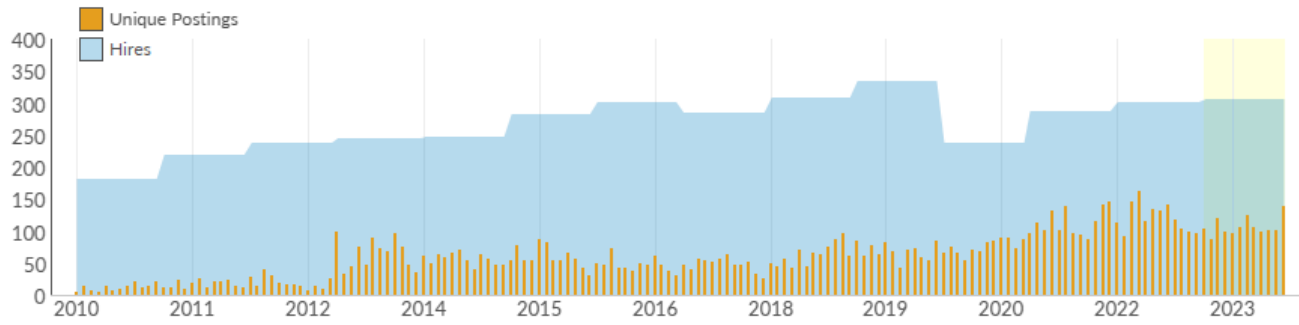
## New Job Postings by Industry or Employer Type

Industry	Total/Unique (Jan 2023 - Dec 2023)	Posting Intensity	Median Posting Duration
Automotive Body, Paint, and Interior Repair and Maintenance	874 / 192	5 : 1	26 days
Employment Placement Agencies	270 / 161	2 : 1	27 days
New Car Dealers	148 / 62	2 : 1	32 days
General Automotive Repair	414 / 62	7 : 1	25 days
Automotive Glass Replacement Shops	162 / 54	3 : 1	27 days
Automobile and Other Motor Vehicle Merchant Wholesalers	150 / 37	4 : 1	27 days
Motor Vehicle Body Manufacturing	53 / 36	1 : 1	38 days
Farm and Garden Machinery and Equipment Merchant Wholesalers	53 / 35	2 : 1	23 days
Heavy Duty Truck Manufacturing	30 / 26	1 : 1	33 days
Temporary Help Services	60 / 18	3 : 1	20 days

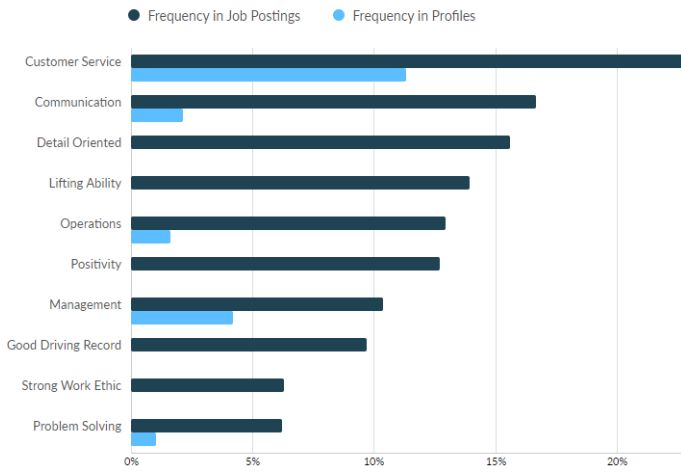
## Pathway Advertised Salary Range



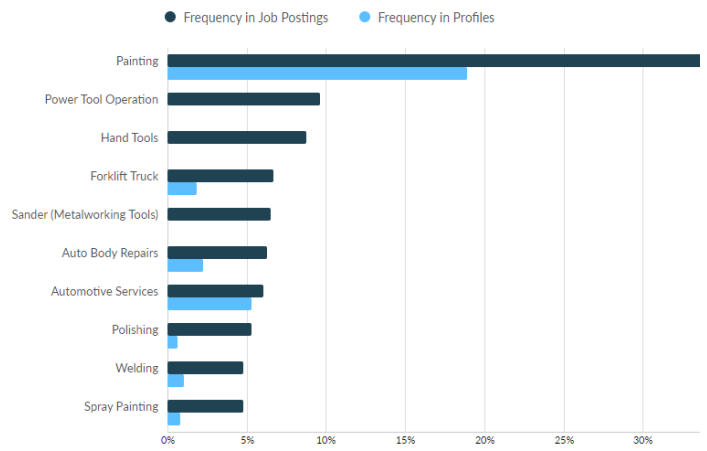
## Monthly Ratio of Unique Job Postings to Estimated Hires



### Top Common Skills



### Top Specialized Skills



### Top Certifications and Qualifications

Qualification	Postings with Qualification
Valid Driver's License	324
Automotive Service Excellence (ASE) Certification	96
Forklift Certification	6
Commercial Driver's License (CDL)	4
Cardiopulmonary Resuscitation (CPR) Certification	3
Respirator Fit Test Certification	3
Assistant Laboratory Animal Technician	3
30-Hour OSHA General Industry Card	2
Certificate Of Clinical Competence In Speech-Language Pathology (CCC-SLP)	2
Security Clearance	2

# Talent Supply Detail

## Talent Unemployment, Underemployment, and Educational Attainment

At an overall pathway unemployment rate of 3.1% (an increase from last year's 2.6%), there are about 227 unemployed Collision Repair professionals statewide. An additional 515 Collision Repair professionals are underemployed, meaning they are working in roles for which they are overqualified by education or experience.<sup>2</sup>

**Collision Repair Pathway in Minnesota**

SOC	Occupation	Empl (Place of Residence)								Overall Occupation <sup>1</sup>		
		< High School	High School	Some College	2-Year	4-Year	Master's	PhD	Total Empl	Underemployed	Unemployed	Unempl Rate
49-3021	Automotive Body and Related Repairers	13.4%	46.2%	16.8%	17.2%	5.4%	0.7%	0.2%	3,028	185	70	2.3%
49-3022	Automotive Glass Installers and Repairers	10.0%	52.7%	24.8%	7.1%	4.6%	0.2%	0.6%	394	21	9	2.1%
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	12.1%	47.4%	17.9%	13.4%	7.6%	1.4%	0.2%	3,785	309	148	3.8%
	<b>Collision Repair Pathway</b>	<b>12.5%</b>	<b>47.2%</b>	<b>17.8%</b>	<b>14.6%</b>	<b>6.5%</b>	<b>1.1%</b>	<b>0.2%</b>	<b>7,207</b>	<b>515</b>	<b>227</b>	<b>3.1%</b>
	<b>Total - All Occupations</b>	<b>4.8%</b>	<b>20.9%</b>	<b>15.2%</b>	<b>14.1%</b>	<b>30.7%</b>	<b>10.4%</b>	<b>3.9%</b>	<b>2,976,622</b>	<b>526,677</b>	<b>87,730</b>	<b>2.9%</b>

Source: JobsEQ®

Data as of 2023Q2 unless noted otherwise

Note: Figures may not sum due to rounding.

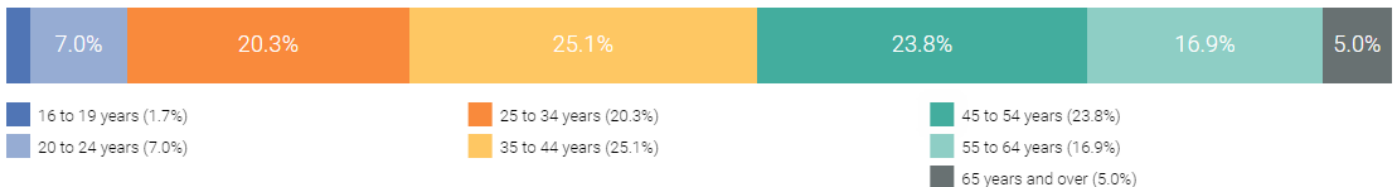
1. "Overall occupation" characteristics refer to attributes across all individuals in those occupations, not just those limited to the demographic categories shown in this table.

<sup>2</sup> Chmura adopts the New York Fed methodology of counting as underemployed only those who have acquired at least a Bachelor's degree and yet are working in an occupation that does not typically require a Bachelor's degree. In Occupation Diversity, the only occupations shown in the Underemployment table are "non-college jobs", as designated by the New York Fed. Per the New York Fed, "a job is classified as a college job if 50 percent or more of the people working in that job indicate that at least a bachelor's degree is necessary; otherwise, the job is classified as a non-college job."

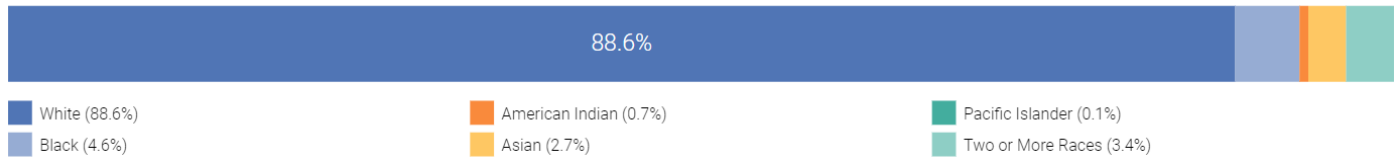
## Workforce Demographics

About 8.7% (a decrease of 1.3 percentage points from 2022Q3 estimates) of the Collision Repair workforce is under the age of 25, and 5.0% are over 64 years old (an increase of 1.5 percentage points from 2022Q3 estimates). This signals a potentially aging workforce. The largest demographic group by race are White, representing 88.6% (increasing by 0.5 percentage points) of the total pathway’s workforce, with the next largest cohort being Black talent representing 4.6% of the workforce. About 10.2% of the pathway’s workforce are Hispanic or Latinx (increased by 1.7 percentage points) and 10.8% are female, a substantial increase of 4.5 percentage points.

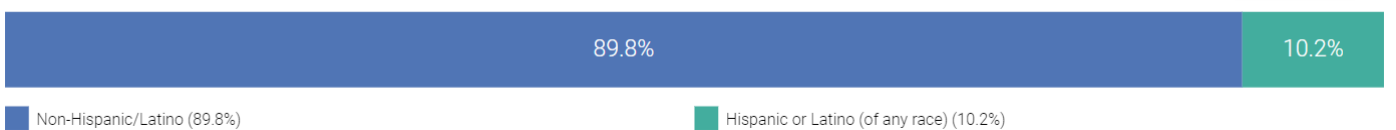
**Collision Repair Workforce Age Demographics, 2023Q2**



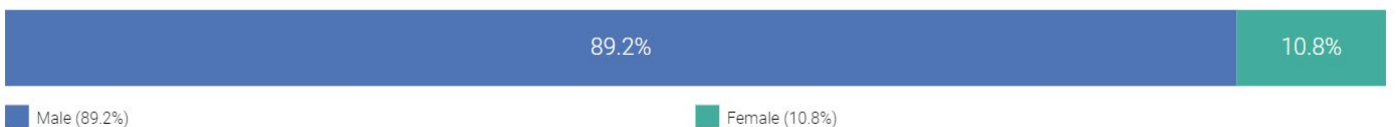
**Collision Repair Workforce Race Demographics, 2023Q2**



**Collision Repair Workforce Ethnicity Demographics, 2023Q2**



**Collision Repair Workforce Gender Demographics, 2023Q2**

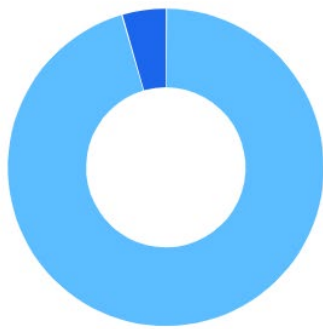


## Aligned Postsecondary Programs

There were about 154 awards conferred at 11 different Minnesota postsecondary institutions in programs aligned to Collision Repair careers in SY2022. Among, these 97 were certificates that could be earned in less than two years, 31 were at the Associate level, and 26 were certificates that could be earned in more than two years, but less than four years. The average school had about 14 completions, but range from one to 68 completions. No programs were delivered remotely.

### Collision Repair Postsecondary Program Awards by Level, SY2022
























CIP Code	Title	Certificate < 1 Yr	Certificate 1+ but < 2 Yr	Associate's	Certificate 2+ but < 4 Yr	Bachelor's	Master's	Doctorate	Total Awards
47.0603	Autobody/Collision and Repair Technology/Technician	67	30	31	26	0	0	0	154
	<b>Total</b>	<b>67 (43.5%)</b>	<b>30 (19.5%)</b>	<b>31 (17.5%)</b>	<b>26 (16.9%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>154 (100%)</b>



Institution Type	Completions (2022)	Market Share
Public, 2-year	147	95.5%
Private not-for-profit, 4-year or above	7	4.5%

Nearly all of the SY2022 awards (95.5%) were conferred by public 2-year institutions. Just seven awards were conferred by private not-for-profit 4-year or above institutions, despite all completions being for certificate or 2-year awards. Completions are down overall by -16.3% from 2012.

## Collision Repair Postsecondary Program Awards by Institution, SY2022

Institution	Completions (2022)	Growth % YOY (2022)	Market Share (2022) 	IPEDS Tuition & Fees (2022)	Completions Trend (2018-2022)
 Hennepin Technical College	68	-11.7%	44.2%	\$5,881	
 Dakota County Technical College	18	80.0%	11.7%	\$6,419	
 Northland Community and Technical College	15	-11.8%	9.7%	\$6,244	
 Ridgewater College	10	0.0%	6.5%	\$6,114	
 Century College	9	-43.8%	5.8%	\$6,105	
 Lake Superior College	8	-50.0%	5.2%	\$6,404	
 South Central College	7	250.0%	4.5%	\$6,146	
 Dunwoody College of Technology	7	0.0%	4.5%	\$24,611	
 St Cloud Technical and Community College	6	50.0%	3.9%	\$6,075	
 Minnesota State College Southeast	5	150.0%	3.2%	\$7,490	
 Riverland Community College	1	Insf. Data	0.6%	\$6,249	

## Graduate Demographics

There is only one postsecondary program directly aligned to the Collision Repair pathway. There is an overrepresentation of male students and there are no international students in the Autobody/Collision and Repair Technology/Technician programs with completions in SY2022.<sup>3</sup> The Autobody/Collision and Repair Technology/Technician program is more diverse than some of the other transportation programs with 46% (up from 42% in SY2021) of program graduates being BIPOC.

### Race and Gender of Graduates Receiving Postsecondary Awards in SY2022, Minnesota

CIP Code	Description	All 2022 Graduates	International Student*	Black or African American, non-Hispanic	American Indian or Alaska Native	Asian, Native Hawaiian or Other Pacific Islander	Hispanic or Latino	White, non-Hispanic	Multiple or unknown race/ethnicity	Gender - Males	Gender - Females
47.0603	Autobody/Collision and Repair Technology/Technician	154	0	23	9	10	19	83	10	134	20
<b>All Collision Repair Postsecondary Programs</b>		<b>154</b>	<b>0</b>	<b>23</b>	<b>9</b>	<b>10</b>	<b>19</b>	<b>83</b>	<b>10</b>	<b>134</b>	<b>20</b>

IPEDS SY2022 demographics by award conferred. Count of awards may double count individuals who obtained multiple credentials in the same calendar year. \*[NCES IPEDS](#) refers to international students that do not have resident status in the United States as “nonresident aliens.” This title aligns to Federal tax definitions and according to NCES IPEDS refers to “a person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely. Note: Nonresident aliens are reported separately, rather than in any of the racial/ethnic categories.” They are not included in calculations of BIPOC talent in this report as race and ethnicity information is not provided for these international students. The terminology of “international student” has been used in this report as it is more familiar to a common audience. <https://nces.ed.gov/ipeds/report-your-data/race-ethnicity-definitions>. For more information, view this article from Berkeley on tax filing status of international students. <https://internationaloffice.berkeley.edu/taxes/tax-filing-status>

<sup>3</sup> [NCES IPEDS](#) refers to international students that do not have resident status in the United States as “nonresident aliens.” This title aligns to Federal tax definitions and according to NCES IPEDS refers to “a person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely. Note: Nonresident aliens are reported separately, rather than in any of the racial/ethnic categories.” They are not included in calculations of BIPOC talent in this report as race and ethnicity information is not provided for these international students. The terminology of “international student” has been used in this report as it is more familiar to a common audience. <https://nces.ed.gov/ipeds/report-your-data/race-ethnicity-definitions>. For more information, view this article from Berkeley on tax filing status of international students. <https://internationaloffice.berkeley.edu/taxes/tax-filing-status>



Occupations in the Collision Repair pathway do not typically require a 2-year degree or higher, and Minnesota postsecondary institutions are not underproducing credentials for Collision Repair professionals. Coating, Painting, and Spraying Machine Setters, Operators, and Tenders, Automotive Body and Related Repairers, and Automotive Glass Installers and Repairers are experiencing talent shortages. The aligned program (Autobody/Collision and Repair Technology/Technician) for the Collision Repair pathway has a very high share of BIPOC graduates (nearly 50%), but a low share of female graduates. The share of BIPOC graduates increased by 4 percentage points from the 2021 school year.

### Postsecondary Strategy Summary Table, Minnesota 2023

Occupation	Related Programs*	2023Q2 Empl	Workforce BIPOC by Race	Workforce Hispanic/Latinx	Workforce Female	Workforce Under 45	SY2022 Graduates (Certificate and AA/AS only)	Award Gap (All Award Levels)**	Graduates BIPOC by Race or Ethnicity (All Award Levels)	Graduates Female (All Award Levels)
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	<ul style="list-style-type: none"> <li>Autobody/Collision and Repair Technology/Technician</li> </ul>	3,785	12.7%	12.2%	16.6%	59.9%	154	N	46.0%	13.0%
Automotive Body and Related Repairers	<ul style="list-style-type: none"> <li>Autobody/Collision and Repair Technology/Technician</li> </ul>	3,028	9.9%	8.4%	4.3%	47.4%	154	N	46.0%	13.0%
Automotive Glass Installers and Repairers	<ul style="list-style-type: none"> <li>Autobody/Collision and Repair Technology/Technician</li> </ul>	394	10.8%	5.5%	5.2%	52.7%	154	N	46.0%	13.0%
<b>Collision Repair Pathway</b>	<b>All aligned programs</b>	<b>7,307</b>	<b>11.4%</b>	<b>10.2%</b>	<b>10.8%</b>	<b>54.1%</b>	<b>154</b>	<b>N</b>	<b>46.0%</b>	<b>13.0%</b>
<b>Total - All Occupations</b>		<b>2,976,622</b>	<b>16.0%</b>	<b>5.4%</b>	<b>48.1%</b>	<b>56.7%</b>	<b>30,032</b>		<b>34.1%</b>	<b>66.0%</b>

NOTE: Red highlighting indicates lower than overall share of workforce or graduate pool, or existence of occupation or award gap. \*Related programs may overlap among occupations within the pathway or across other Transportation career pathways. Only those programs most tightly aligned to the occupation in question are listed in this column. \*\*Award gaps are estimated based on a wider alignment of programs than what is illustrated in this table.

# Conclusion

Postsecondary programs aligned to the Collision Repair pathway are not underproducing graduates in comparison to national benchmarks, yet completions are down overall by -16.3% from 2012. There is one new institution (Riverland Community College) with one completion aligned to the Collision Repair pathway in SY2022. However, all the occupations in the Collision Repair pathway are experiencing talent shortages, a low share of female workers (even with a sizeable increase in the share of female workers, up 4.5 percentage points from 2022Q3) and female graduates. Graduates of Collision Repair programs have become more diverse over the past few years, with about 50% of graduates identifying as BIPOC by race and ethnicity (increased by four percentage points from SY2021).

The unemployment rate for the Collision Repair pathway increased to 3.1% compared to 2.6% in 2022Q3. Unemployment and underemployment numbers increased dramatically for the Coating, Painting, and Spraying Machine Setters, Operators, and Tenders occupation. The percentage of people who are self-employed in the Collision Repair pathway has continued to increase and is now at 8%.

With increasing unemployment and underemployment in the Collision Repair pathway, addressing lower wages and career advancement potential in this pathway could potentially help with attracting additional talent.

# FAQ

## How is employment forecast determined?

Forecast employment growth uses national projections from the Bureau of Labor Statistics, forecasts for 2022-2032, adapted for regional growth patterns by Chmura. Employment data are based on [occupation forecasts](#) and event-based forecasts if applicable. Forecasts are developed at the county level; therefore, for detailed (6-digit NAICS) ownership-specific industries, the forecast employment growth for a zip code or place (city, town, etc.) is taken from the forecast of the county to which it belongs.

## 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.

## 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.

## 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.

## 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)