BIOSCIENCE

From Occupations to Skills

DATA SUMMARY

The Greater Fargo Moorhead Economic Development Corporation is proud to present this special workforce report for the 2025 BioScience Summit—a collaborative effort to equip regional leaders with the data and insights needed to prepare for the future of bioscience talent. As investment and innovation accelerate across the bioscience sector, so does the urgency to align workforce capabilities with evolving industry demands.

Employers are facing persistent challenges in recruiting and retaining skilled talent—from lab technicians and regulatory specialists to data scientists and software development professionals. This report highlights key labor market trends, emerging skills gaps, and projected workforce needs that will shape the region's competitiveness in biotech, medtech, and life sciences.

To support strategic planning, we introduce the Promising Practices Toolkit —a collection of actionable strategies including proven training models, employer-education partnerships, inclusive hiring practices, and datadriven planning tools. We invite you to explore these resources and join us in building a resilient, future-ready bioscience workforce for the Fargo-Moorhead region.





Joe Raso President & CEO GFMEDC



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While the primary objective of this data is to address the workforce needs of industry, it is essential to acknowledge a set of interconnected factors that significantly impact workforce participation, development, and sustainability.

ADJACENT FACTORS

- Affordable & Available Housing Supply
- Childcare Availability & Affordability
- Livable Wage & Economic Mobility

PERSISTENT WORKFORCE CHALLENGES

- Lack of Clear Career Pathways
- Foundational Skill Gaps
- Soft Skill Deficits

HUMAN AIDED WORK

- Artificial Intelligence
- Automation

Though not the primary focus, factors like housing, childcare, and wages directly affect workforce participation and stability. With this in mind, we now turn to workforce demand—over 49,000 job postings in the past year highlight the pressing need to align talent with industry needs.

Current State of Affairs: FM MSA Job Postings

Over the last year, our region has seen a wide array of open positions across different industries From October 2024 to September 2025, there were 49,000 unique job postings in the FM MSA across all industry sectors. Over 3,600 employers competed for talent during this time.

October 2024 - September 2025

Sample of Top Industries Uni	que Postings
Health Care and Social Assistance	10,140
Administrative and Support and Waste Manager	nent 7,299
Retail Trade	4,622
Wholesale Trade	2,421
Manufacturing	2,323
Professional, Scientific, and Technical Services	2,293
Construction	2,084
Accommodation and Food Services	1,920
Finance and Insurance	1,774
Educational Services	1,511
Transportation and Warehousing	998
Other Services (except Public Administration)	916
Information	858
Real Estate and Rental and Leasing	828

More than half (52%)
of the job postings in the last year listed no education requirement.

Nearly 1 in 3
(32%)
asked for an Associates or Bachelor's Degree.

Staffing Patterns Now and Through 2031

Sample of Top Occupations	Employed in Industry (2025)	Employed in Industry (2031)	Change (2025- 2031)	% Change (2025- 2031)
Healthcare Practitioners and Technical Occupations	12,633	13,671	1,038	8%
Business and Financial Operations	8,591	8,858	266	3%
Healthcare Support Occupations	6,821	7,481	660	10%
Personal Care and Service Occupations	4,328	4,560	233	5%
Architecture and Engineering Occupations	2,412	2,579	167	7%
Life, Physical and Social Science Occpations	1,621	1,723	101	6%

Bioscience Education, Experience and Qualifications

Over 330 unique job postings in Bioscience industries were posted in the last year (October 2024-September 2025) in the FM MSA. Nearly 50 employers competed for talent across the metro.

In the past year, over **20% of job postings in the Bioscience sector did not specify any formal education requirement**, while just over 25% requested a minimum of a high school diploma or GED.

Education Level	Unique Postings	% of Total
No Education Listed	70	21%
High school or GED	93	28%
Associate's degree	27	8%
Bachelor's degree	177	53%
Master's degree	50	15%
Ph.D. or professional degree	26	8%

^{*}This includes any mention of an education level and may total more than 100%.

Additionally, Nearly 40% of all postings in these fields did not list any prior work experience as a requirement, indicating a significant number of entry-level opportunities within the sector.

Minimum Experience	Unique Postings	% of Total
No Experience Listed	131	39%
0 - 1 Years	42	13%
2 - 3 Years	68	20%
4 - 6 Years	49	15%
7 - 9 Years	26	8%
10+ Years	17	5%



Qualification	Postings with Qualification
Valid Driver's License	71
Registered Nurse	11
Master of Business Administration	8
Nurse Practitioner	6
American Society for Quality Certified	5

Bioscience: Pipeline Gap

Evaluating a potential talent surplus or shortage involves considering multiple variables. Key factors such as an occupation's share of total industry employment, the average number of annual job openings, median hourly wages, and projected employment changes provide a comprehensive framework for assessing workforce alignment. For reference, there are over 1,250 people currently employed in the Bioscience Industry in the FM MSA.

Top 10 Occupations in Bioscience by % of total Jobs in Industry Group

Description	% of Total Jobs in Industry Group (2024)	Entry Level Education	Average Annual Openings	Annual Post- Secondary Surplus/ (Gap)*	Median Hourly Earnings	Change in Jobs (2025- 2031)
Chemical Plant and System Operators	6.30%	HS Diploma	10	*	\$47.88	11
Packaging and Filling Machine Operators and Tenders	4.70%	HS Diploma	55	*	\$21.38	39
Chemical Equipment Operators and Tenders	3.80%	HS Diploma	10	*	\$33.82	14
Inspectors, Testers, Sorters, Samplers, and Weighers	3.70%	HS Diploma	61	*	\$23.98	22
Software Developers	3.60%	Bachelor's degree	61	148	\$49.49	18
General and Operations Managers	3.50%	Bachelor's degree	337	454	\$45.43	121
Miscellaneous Assemblers and Fabricators	3.30%	HS Diploma	345	*	\$22.51	113
Medical Scientists, Except Epidemiologists	3.20%	Doctoral or professional degree	14	374	\$37.74	12
Biological Technicians	2.80%	Bachelor's degree	8	192	\$25.06	4
Industrial Engineers	2.40%	Bachelor's degree	19	16	\$40.44	28

Note: Change in the table above is the net difference for the occupation; inclusive of exits and growth.

Grev Shaded Occupations:

As we contemplate how to address the needs of the bioscience industry, we can't overlook the demand for key positions and the role they play in these sectors. However crucial, these positions have median hourly earnings under \$25/hour and pose difficulties to fill now and in the future without intentional action.

Blue Shaded Occupations:

Targeted Occupations filtered by % of jobs in industry, quantify of openings, and median hourly wage as well as highly anticipated retirements in future years.

^{*}This surplus/gap is arrived at taking the number of regional completions less the number of average annual openings. Due to lack of program information or that no post-secondary program is needed, we are unable to ascertain a surplus or gap for this occupation.

Career Pathways Mapping

Career Pathways Mapping, a Lightcast tool, helps address in-demand occupations by focusing on the skills that occupations need. Many adjacent occupations have similar skill sets that can be developed, or up-skilled to move workers into in-demand careers. Looking at the top occupations in each grouping of targeted industries, General and Operations Managers are a common needed occupation throughout.

Manufacturing & Trades

Carpenters

First-Line Supervisors of Construction Trades and Extraction Workers

General and Operations Managers

Operating Engineers and Other Construction Equipment Operators

Welders, Cutters, Solderers, and Brazers

Healthcare & Bioscience

Registered Nurses

General and Operations Managers

Managers, All Other

Software Developers

Substance Abuse, Behavioral Disorder and Mental Health Counselors

AgTech & Autonomous

Software Developers

Civil Engineers

General and Operations Managers

Computer User Support Specialists

Software Quality Assurance Analysts and Testers

Example of Career Mapping for:

General and Operations Managers



First-Line Supervisors of Office and Administrative Support Workers

Skill Relevance: 86%

Category: Lateral Advancement

Earnings

Gained: \$34,000/year

General and Operations Managers

Median Advertised Salary: \$73,400/year Chief Executives

Skill Relevance: 86% Category: Advancement

Earnings

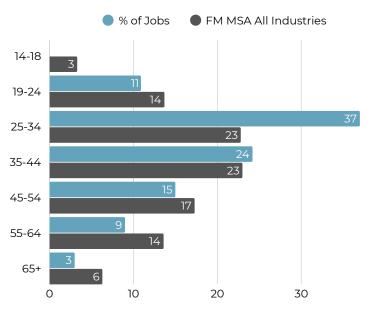
Gained: \$12,600/year

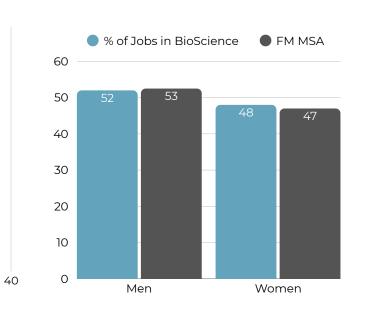
Bioscience Industry Demographics

Examining the age, gender, and race or ethnicity of an industry's workforce helps identify key challenges in recruitment, retention, and equity. These demographics reveal trends like aging workers, underrepresentation, or lack of diversity, all of which affect workforce stability and long-term growth.

Industry Age Breakdown

Gender Breakdown





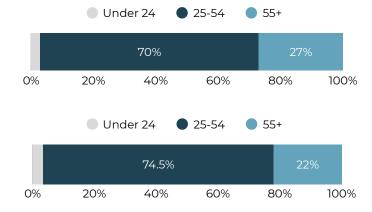
12% of the workforce in the bioscience industry are over the age of 55.Compared to other targeted industries, the bioscience industry does not have as many mature workers.

The gender distribution in this industry mirrors the gender distribution found at the national level.

About 18% of the workforce in the bioscience industry is **diverse**.



First-Line Supervisors of Production and Operating Workers



Looking deeper at demographic trends such as age can help us spot occupation gaps before they become critical.

For the occupations to the left, more than 20% of their workforce is age 55+ and likely considering retirement in future years.

Promising Practices

Promising practices refer to strategies that effectively increase occupational completions and market entries. While this list is not exhaustive, they serve as key building blocks for addressing workforce challenges.

How do we make a collective impact with promising practices?

- Align resources, expertise, and training to scale programs targeting in-demand skills.
- Streamline pathways from skill development to microcredentials to employment.
- Build a statewide data network to connect employers with programs that expand talent pools (e.g., ND's Childcare and ROOTS Talent Attraction Programs).



Skills-Based Hiring

PartnerHighlight



A skills-based approach is primarily used in the hiring process. It's put into practice when a hiring manager places a greater emphasis on the skills a candidate has over their degree or previous job titles. In evaluating a candidate by the skills needed for the job, as opposed to using degree title and job title filters, companies can expand their talent pool for skilled candidates.

Read about Lightcast's Skills-Based Hiring Toolkit here



Talent Recruitment







The GFMEDC has been engaged in talent recuitment strategies that have both built awareness of the FM Region and helped companies engage in talent outreach. The www.liveinfargo.com and www.workinfargo.com websites are tools that companies can use when showcasing the region to out-of-market candidates. The GFMEDC's Lightning Recruitment Program can help pin-point outside talent to recruit. Additionally, the FMWF Chamber's Community Concierge Program can help new comers cultivate connections.



Accelerated Credentialing

Accelerated credentialing refers to streamlining the process that workers learn skills and are tested on those skills for entry into a profession. Benefits of accelerated credentialing include:

• Faster entry into the workforce

- Microcredentialing and credential stacking
- Recognition of prior learning and experience



Career Exposure











How can learning about a career be accessible, fun and rewarding? Providing career information in an engaging way can help. To do this, numerous efforts have been made by the GFMEDC and our partners in the following:

- Virtual Reality
- Work-Based Learning
- The Good Jobs Challenge



Company Culture



Workplaces with great company culture attract and retain employees. The GFMEDC is gathering these best practices in a collaborative network that companies can tap into and assess their own culture.

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