

2025

Priority Jobs and Programs IN THE FAR NORTH



**FAR NORTH CENTER OF EXCELLENCE
FOR LABOR MARKET RESEARCH**



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• Executive Summary

The *Priority Jobs and Programs in the Far North* report, developed by the Far North Center of Excellence for Labor Market Research, provides a comprehensive analysis of middle-skill workforce demand and community college program alignment across the subregion. It identifies 50 high-opportunity, middle-skill "priority occupations" and 44 associated "priority programs" offered by subregional community colleges. The findings are designed to support strategic decision-making for workforce development, program planning, and resource investment by community colleges, economic development partners, and other stakeholders.

This report is the first in a two-part series. The next report will explore equity and cross-regional disparities, further informing inclusive workforce strategies across the Far North subregion.

Key Findings

Middle-skill jobs drive subregional demand:

- Middle-skill occupations—those requiring education beyond high school but not a four-year degree—account for 45% of all jobs and 43% of projected openings in the Far North.
- These roles are particularly concentrated in the health and business & entrepreneurship sectors, which together represent 54% of all middle-skill employment.

Priority occupations offer strong career mobility:

- The 50 identified priority occupations represent over 36,000 jobs and are projected to grow by 11% through 2028, generating nearly 4,100 annual openings.
- These occupations offer an average entry-level wage of \$32.20/hour, strong historical growth, low automation risk, and include 14 roles recognized on the *U.S. News & World Report's* "Best Jobs" list.

Supply gaps exist in high-demand sectors:

- The energy, construction & utilities sector has the most significant shortage, with 834 projected job openings annually, but only 69 related program awards—a 12-to-1 shortfall. The health sector also exhibits a supply gap, albeit less severe, with 1,422 openings versus 625 awards annually—a 2-to-1 ratio.
- The advanced manufacturing and education & human development sectors may appear to have an oversupply, but this is likely overstated due to the broad range of roles supported by these programs.

ICT/digital media and emerging sector opportunities:

- The ICT/digital media sector is one of the fastest-growing, projected to expand by 10% by 2028, yet it remains underserved, with only nine aligned programs and modest award numbers.
- The life sciences & biotechnology sector, despite an 87% middle-skill job share, lacks both priority occupations and aligned programs due to low projected job growth—a potentially missed opportunity.

Conclusion

The report highlights critical opportunities for Far North community colleges to lead subregional workforce development by aligning programs with labor market demand. While 44 priority program areas exist, several sectors face significant talent shortages that threaten economic growth and workforce sustainability.

Strategic alignment will require more responsive program planning, sector engagement, and resource allocation to ensure community colleges are equipping students with the skills needed in high-demand, living-wage occupations.

Recommendations

Community colleges and subregional workforce partners should:

- Prioritize program development in high-demand sectors such as energy, construction, health, and ICT/digital media—especially where labor shortages are acute and wages are strong.
- Broaden alignment strategies to recognize that some programs serve multiple occupational pathways. Assess total sector needs, not just narrow definitions of priority roles.
- Use this report to guide funding and enrollment strategies, including curriculum redesign, advisory engagement, and targeted outreach to underserved learners.
- Prepare for equity-focused planning, as a forthcoming companion report will explore disparities in access and outcomes. Stakeholders should begin integrating equity considerations into their strategic efforts.

For additional data, methodology, and occupation-specific profiles, refer to the full report or contact the Far North COE for Labor Market Research.

• Introduction

In alignment with the goals of the Economic and Workforce Development grant, the Far North Center of Excellence for Labor Market Research conducted a comprehensive subregional labor market analysis to identify the most in-demand middle-skill occupations and the corresponding community college programs in the Far North subregion. Collectively, these are referred to as "priority occupations" and "priority programs."

Purpose of the Report

This report is designed to:

- **Identify priority occupations:** Establish a list of 50 middle-skill occupations that offer community college learners clear pathways to in-demand careers with living wages. These occupations span key industry sectors, including health, public safety, construction, and logistics.
- **Assess program alignment:** Evaluate the extent to which current community college programs meet subregional labor market needs, especially in preparing students for the identified priority occupations. Programs aligned with these occupations are referred to as "priority programs."
- **Inform subregional planning and investments:** Provide data-driven insights to support strategic planning for community colleges and subregional workforce development partners across the Far North. This includes supporting decisions related to curriculum development, enrollment strategies, and broader workforce initiatives across the subregion.

Intended Use

This report is intended to serve as a strategic resource for California Community Colleges located in the Far North as well as subregional stakeholders. Its primary goal is to strengthen the alignment between career education programs and subregional employer needs, ensuring that students are equipped with the skills necessary for high-demand, well-paying jobs in the Far North subregion.

Future Research

This report is the first of two examining the alignment between career education programs and regional workforce needs. The follow-up report will expand on these findings by exploring equity and cross-regional disparities in achieving the goals outlined here.

• Far North Employment Trends

In 2023, the Far North subregion supported nearly 375,000 jobs (Exhibit 1). Over the next five years, total employment is expected to grow by 5%, resulting in approximately 18,000 new jobs by 2028.

When analyzed using the California Community Colleges Chancellor's Office priority sector framework, five key sectors emerge based on size, projected growth, and annual job openings: business & entrepreneurship; education & human development; health; retail, hospitality & tourism; and the unassigned occupations sector. These five sectors collectively account for over 250,000 jobs, representing two-thirds of the subregion's employment. They also expected to generate the majority of annual job openings—nearly 36,000 projected each year through 2028. Notably, three sectors - business & entrepreneurship, education & human development, and health - are expected to contribute the most to new job growth, making up more than 75% of the total projected job gains across the Far North.

Another sector stands out as emerging based on projected growth: Information and Communication Technologies (ICT)/digital media. Although the ICT/digital media sector currently has one of the smallest employment bases in the Far North, it stands out for its projected growth rate. Over the next five years, jobs in this sector are expected to grow by 10%, the second-fastest growth rate among all sectors. By 2028, this sector is anticipated to add 740 jobs to the subregion's labor market.

Employment in the Far North subregion is projected to grow by 5% by 2028, adding more than 18,000 new jobs.

Exhibit 1. Far North total employment by priority sector

CCCCO Sector	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Advanced Manufacturing	13,056	439	3%	1,748
Advanced Transportation & Logistics	32,278	383	1%	4,084
Agriculture, Water & Environmental Technologies	26,256	148	1%	3,847
Business & Entrepreneurship	68,909	2,183	3%	7,659

CCCCO Sector	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Education & Human Development	36,067	2,906	8%	4,497
Energy, Construction & Utilities	31,716	1,135	4%	3,401
Health	60,494	8,881	15%	9,133
Information and Communication Technologies (ICT)/Digital Media	7,260	738	10%	839
Life Sciences & Biotechnology	1,963	5	0%	225
Public Safety	11,337	309	3%	1,472
Retail, Hospitality & Tourism	47,283	668	1%	8,609
Unassigned	37,649	70	0%	37,649
Far North Totals	374,269	17,864	5%	51,449

Although all sectors provide job opportunities, the type and distribution of those opportunities vary significantly by sector. Community colleges focus largely on preparing students for middle-skill occupations—positions that require education or training beyond high school but do not typically require a four-year degree.

In the Far North, middle-skill jobs account for 45% of all employment across the 12 priority sectors. Over the next five years, middle-skill jobs are expected to generate approximately 22,000 annual openings, representing 43% of all projected job openings in the subregion (Exhibit 2).



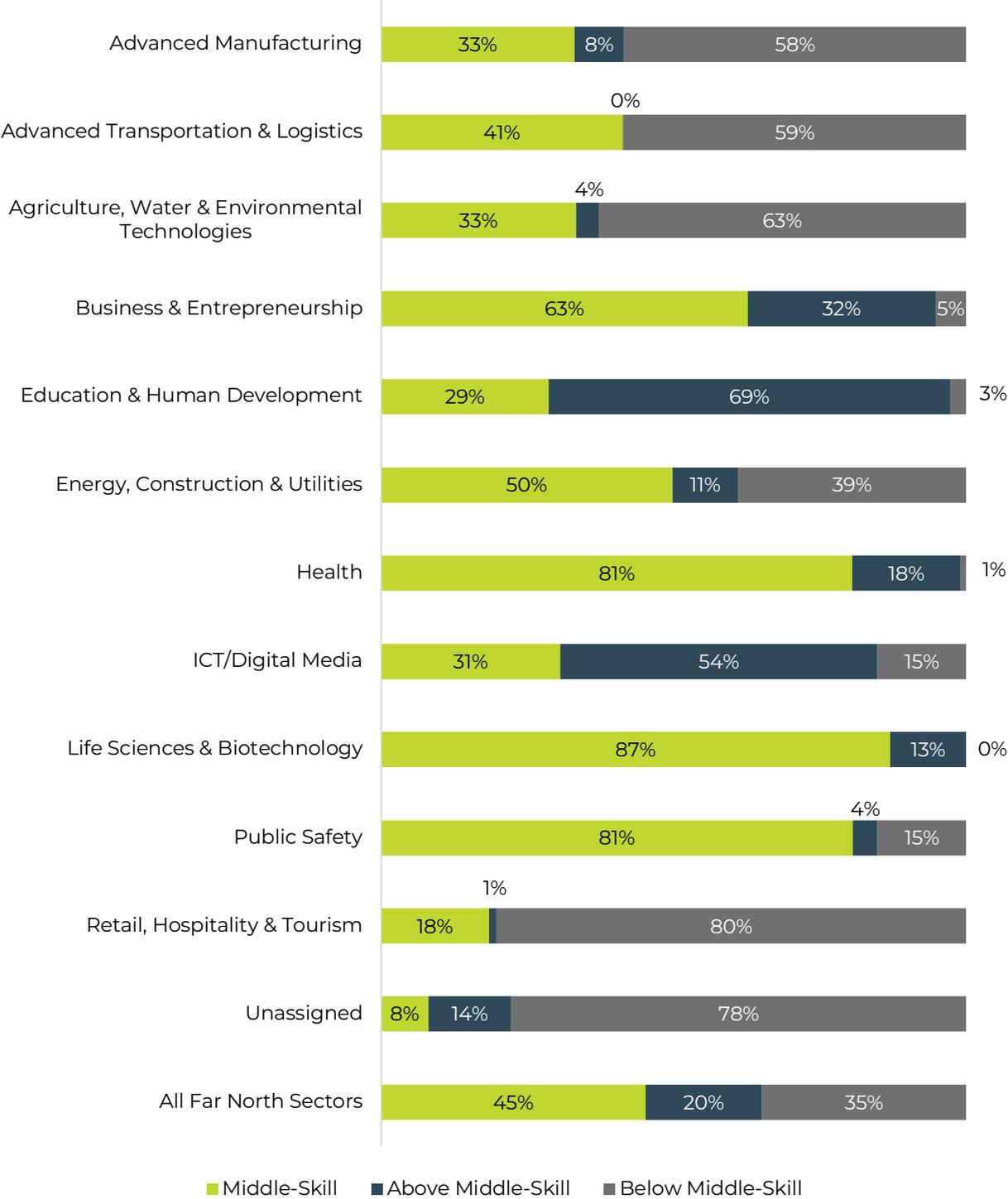
Significantly, more than half of middle-skill roles are concentrated in just two sectors: business & entrepreneurship and health. In 2023, these two sectors alone comprised 54% of the subregion's total middle-skill employment (Exhibit 2).

Exhibit 2. Far North middle-skill employment by priority sector

CCCCO Sector	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Advanced Manufacturing	4,317	83	2%	499
Advanced Transportation & Logistics	13,331	183	1%	1,454
Agriculture, Water & Environmental Technologies	8,736	(69)	(1%)	1,183
Business & Entrepreneurship	43,169	175	0%	4,960
Education & Human Development	10,325	84	1%	1,463
Energy, Construction & Utilities	15,780	515	3%	1,752
Health	48,733	7,338	15%	7,860
ICT/Digital Media	2,225	269	12%	252
Life Sciences & Biotechnology	1,708	10	1%	204
Public Safety	9,139	356	4%	1,025
Retail, Hospitality & Tourism	8,711	83	1%	1,122
Unassigned	3,043	106	3%	482
Far North Middle-Skill Employment	169,218	9,029	5%	22,257

Further analysis reveals substantial differences in both the number and proportion of middle-skill jobs across the Far North's priority sectors. The share of middle-skill employment ranges widely, from as low as 8% to as high as 87% of jobs within each sector (Exhibit 3). Sectors with the highest concentrations of middle-skill roles include life sciences & biotechnology, health, public safety, and business & entrepreneurship.

Exhibit 3. Far North employment by priority sector and skill level



● Priority Occupations in the Far North

The Far North COE for Labor Market Research identified these top occupations based on the following criteria:

- **Middle-skilled.** These top occupations typically require more education and training than a high school diploma but less than a bachelor's degree.
- **Pay a living wage.** These occupations offer entry-level hourly earnings that meet or exceed the Far North living wage of \$16.22 per hour.¹
- **Good projected growth.** These occupations have projected job growth that meets or exceeds Far North's average job growth of 4.8% over the next five years (2023-2028).
- **Local labor market demand.** Additionally, these occupations have a minimum of 15 annual openings, which is the median number of projected yearly openings across all occupations in the Far North subregion through 2028.

The priority occupations analyzed in this report are considered in-demand, stable or growing, and offer the potential for economic stability to residents and students of the subregion. The Far North COE identified 64 out of 796 Standard Occupational Classification (SOC) codes – the first 50 of which are covered in this report. Together, these occupations:

- Represent more than 36,000 jobs in Far North – about 10% of subregional employment in 2023,
- Are poised to grow an average of 11% over the next five years,
- Will generate an estimated 4,100 annual openings between 2023 and 2028,
- And offer a weighted average entry-level of \$32.20 per hour.²

Additional strengths of these priority occupations include:

- Strong historical job growth, with an average growth rate of 11% between 2018 and 2023.
- Low turnover rates, with separation rates typically below the subregional average of 59%.

¹ This report relies on data from the University of Washington's Center for Women's Welfare Self-Sufficiency Standard to determine an aggregated subregional living wage. The subregional living wage was calculated by averaging the living wage for a single adult across the 15 counties of the Far North (Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity), weighted by the population of each county.

² Entry-level wages weighted by 2023 jobs. Please note that entry-level wages vary by occupation.

- Low automation risk, where 44 of the 50 priority occupations have a below-average risk of displacement due to automation.
- Increased potential for self-sufficiency, where 34 priority occupations meet a higher level single-adult living wage threshold and 29 occupations offer family-sustaining wages.
- And, national recognition, where 14 of these occupations appear on *U.S. News & World Report's* 2025 "Best Jobs" list.³

These 50 priority occupations span multiple sectors, covering nearly all 11 priority sectors in the North Far North (Exhibit 4). The health sector accounted for the largest number of priority occupations, with 13 out of the 50 occupations. The health sector accounted for the highest number of jobs among all sectors (13,991) and also had the most job openings (1,422).

Exhibit 4. Far North priority occupations by sector

CCCCO Sector	# of occupations	2023 Jobs	2023-2028 Projections		
			Job Change (#)	Job Change (%)	Annual Openings
Advanced Manufacturing	2	270	44	16%	36
Advanced Transportation & Logistics	6	2,303	211	9%	255
Agriculture, Water & Environmental Technologies	1	230	59	26%	36
Business & Entrepreneurship	5	7,095	610	9%	714
Education & Human Development	1	275	22	8%	35
Energy, Construction & Utilities	10	7,257	657	9%	834
Health	13	13,991	1,614	12%	1,422
ICT/Digital Media	3	1,034	223	22%	127

³ U.S. News & World Report, "U.S. News Unveils the 2025 Best Jobs," *U.S. News & World Report*, January 14, 2025, <https://www.usnews.com/info/blogs/press-room/articles/2025-01-14/u-s-news-unveils-the-2025-best-jobs>.

CCCCO Sector	# of occupations	2023 Jobs	2023-2028 Projections		
			Job Change (#)	Job Change (%)	Annual Openings
Life Sciences & Biotechnology	N/A	--	--	--	--
Public Safety	4	2,570	382	15%	401
Retail, Hospitality & Tourism	2	507	57	11%	95
Unassigned	3	894	88	10%	132
Far North Priority Occupations	50	36,424	3,968	11%	4,086

The following pages of this report provide detailed information about each of the priority occupations, organized by the California Community Colleges Chancellor's Office sector framework.



- Advanced Manufacturing

Exhibit 5. Far North advanced manufacturing priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Millwrights	174	23	13%	20
Calibration Technologists and Technicians	95	21	22%	16

Exhibit 6. Far North advanced manufacturing priority occupation wage ranges

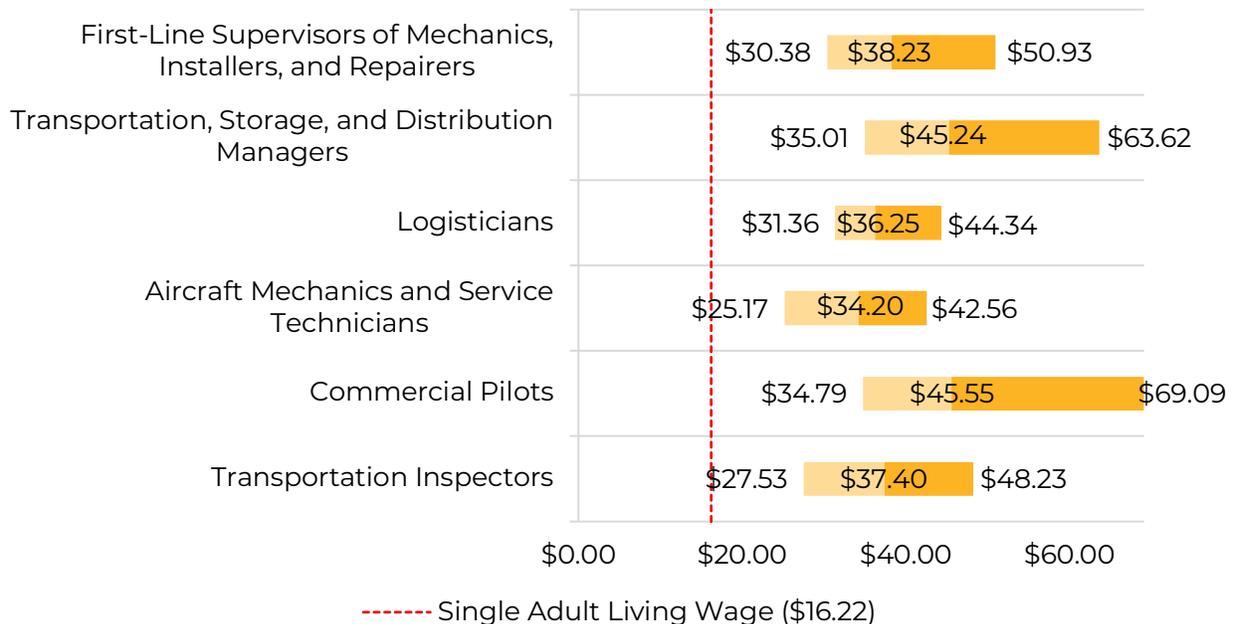


- Advanced Transportation & Logistics

Exhibit 7. Far North advanced transportation and logistics priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
First-Line Supervisors of Mechanics, Installers, and Repairers	1,243	86	7%	123
Transportation, Storage, and Distribution Managers	359	26	7%	35
Logisticians	238	11	5%	24
Aircraft Mechanics and Service Technicians	191	27	14%	21
Commercial Pilots	175	22	13%	30
Transportation Inspectors	96	38	40%	21

Exhibit 8. Far North advanced transportation and logistics priority occupation wage ranges

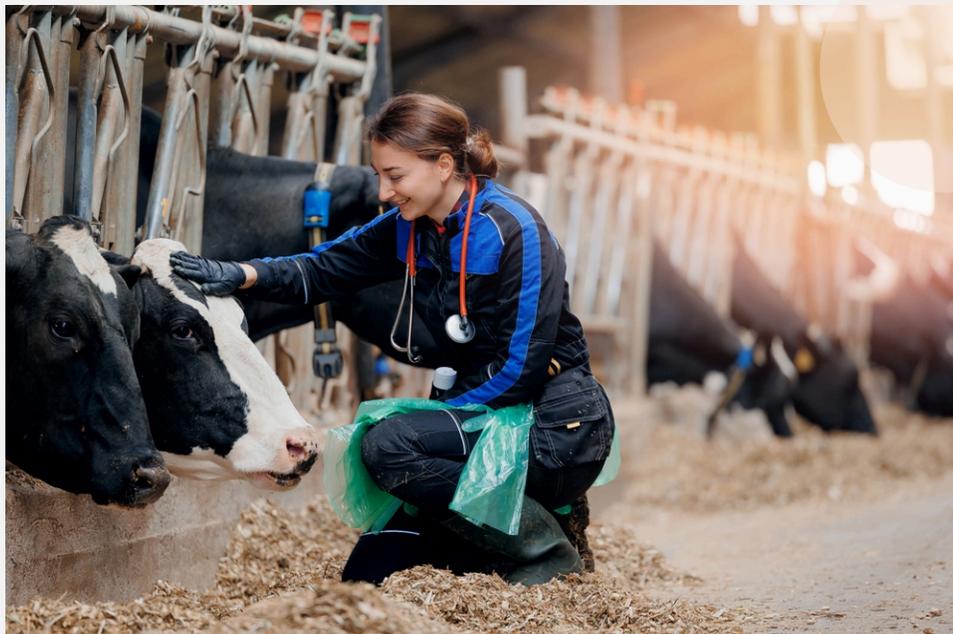
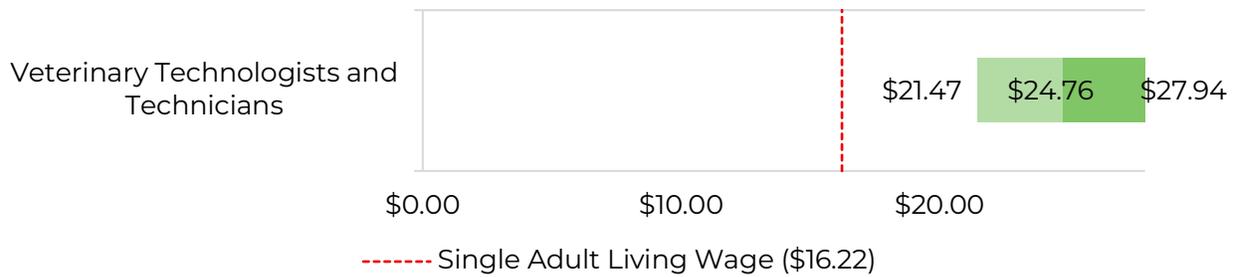


- Agriculture, Water & Environmental Technologies

Exhibit 9. Far North agriculture, water and environmental technologies priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Veterinary Technologists and Technicians	230	59	26%	36

Exhibit 10. Far North agriculture, water and environmental technologies priority occupation wage ranges

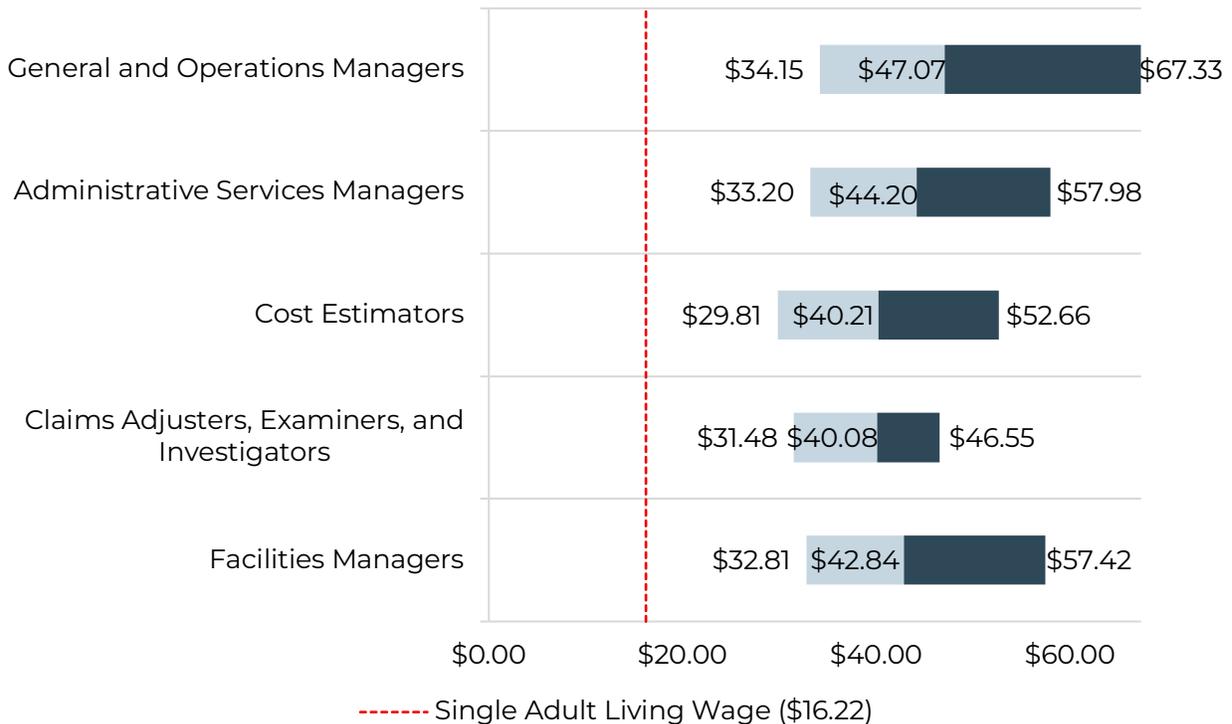


- Business & Entrepreneurship

Exhibit 11. Far North business and entrepreneurship priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Jobs Change (#)	Job Change (%)	Annual Openings
General and Operations Managers	5,291	428	8%	524
Administrative Services Managers	642	77	12%	70
Cost Estimators	437	35	8%	45
Claims Adjusters, Examiners, and Investigators	374	18	5%	35
Facilities Managers	350	52	15%	39

Exhibit 12. Far North business and entrepreneurship priority occupation wage ranges



- Education & Human Development

Exhibit 13. Far North education and human development priority occupation

Occupation	2023 Jobs	2023-2028 Projections		
		Jobs Change (#)	Job Change (%)	Annual Openings
Kindergarten Teachers, Except Special Education	275	22	8%	35

Exhibit 14. Far North education and human development priority occupation wage range

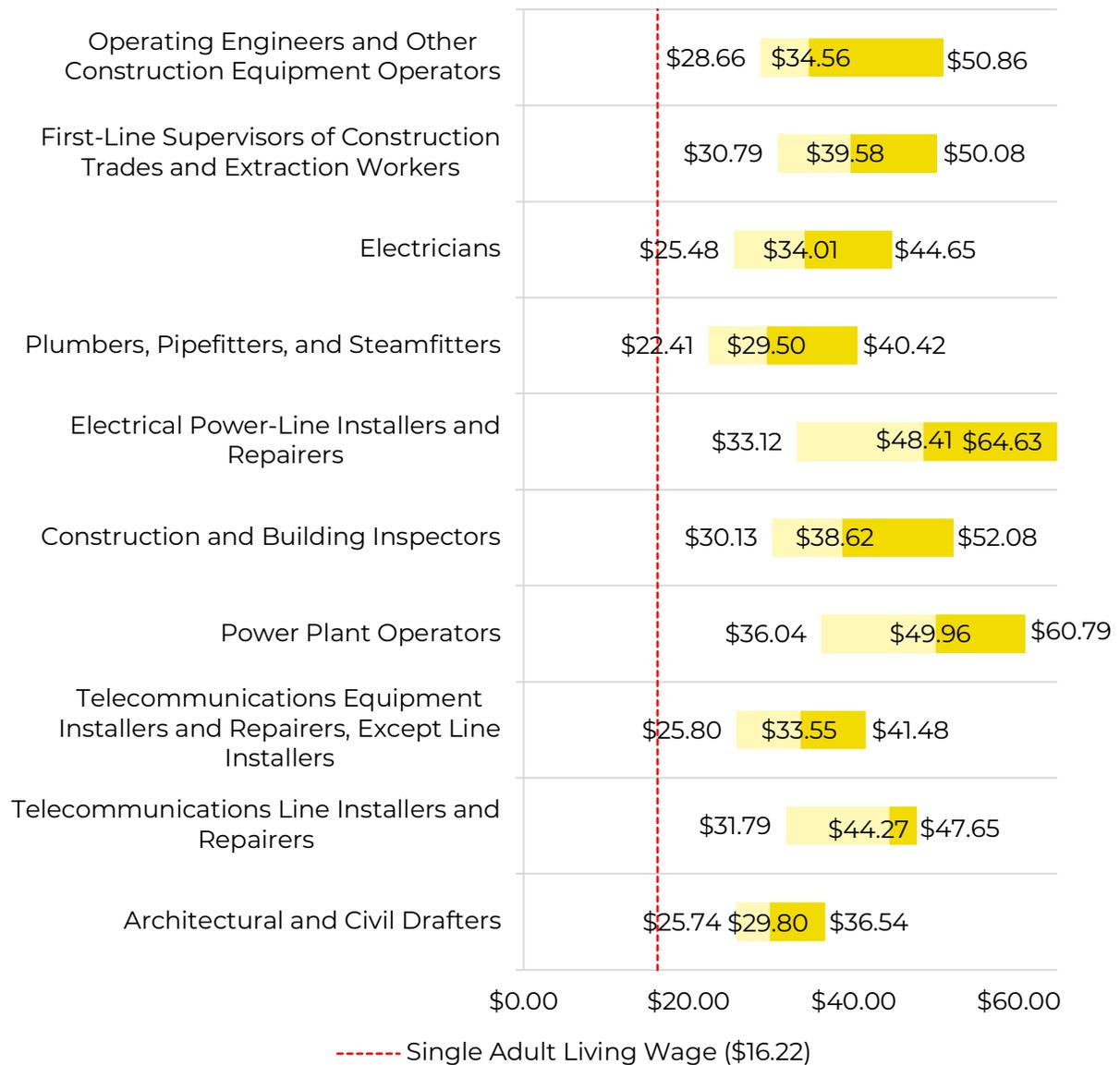


- Energy, Construction & Utilities

Exhibit 15. Far North energy, construction and utilities priority occupations

Occupation	2023-2028 Projections			
	2023 Jobs	Job Change (#)	Job Change (%)	Annual Openings
Operating Engineers and Other Construction Equipment Operators	1,694	183	11%	190
First-Line Supervisors of Construction Trades and Extraction Workers	1,574	81	5%	156
Electricians	1,367	78	6%	146
Plumbers, Pipefitters, and Steamfitters	971	53	5%	104
Electrical Power-Line Installers and Repairers	349	21	6%	43
Construction and Building Inspectors	318	38	12%	47
Power Plant Operators	295	110	37%	55
Telecommunications Equipment Installers and Repairers, Except Line Installers	282	44	16%	40
Telecommunications Line Installers and Repairers	226	24	11%	28
Architectural and Civil Drafters	181	25	14%	25

Exhibit 16. Far North energy, construction and utilities priority occupation wage ranges

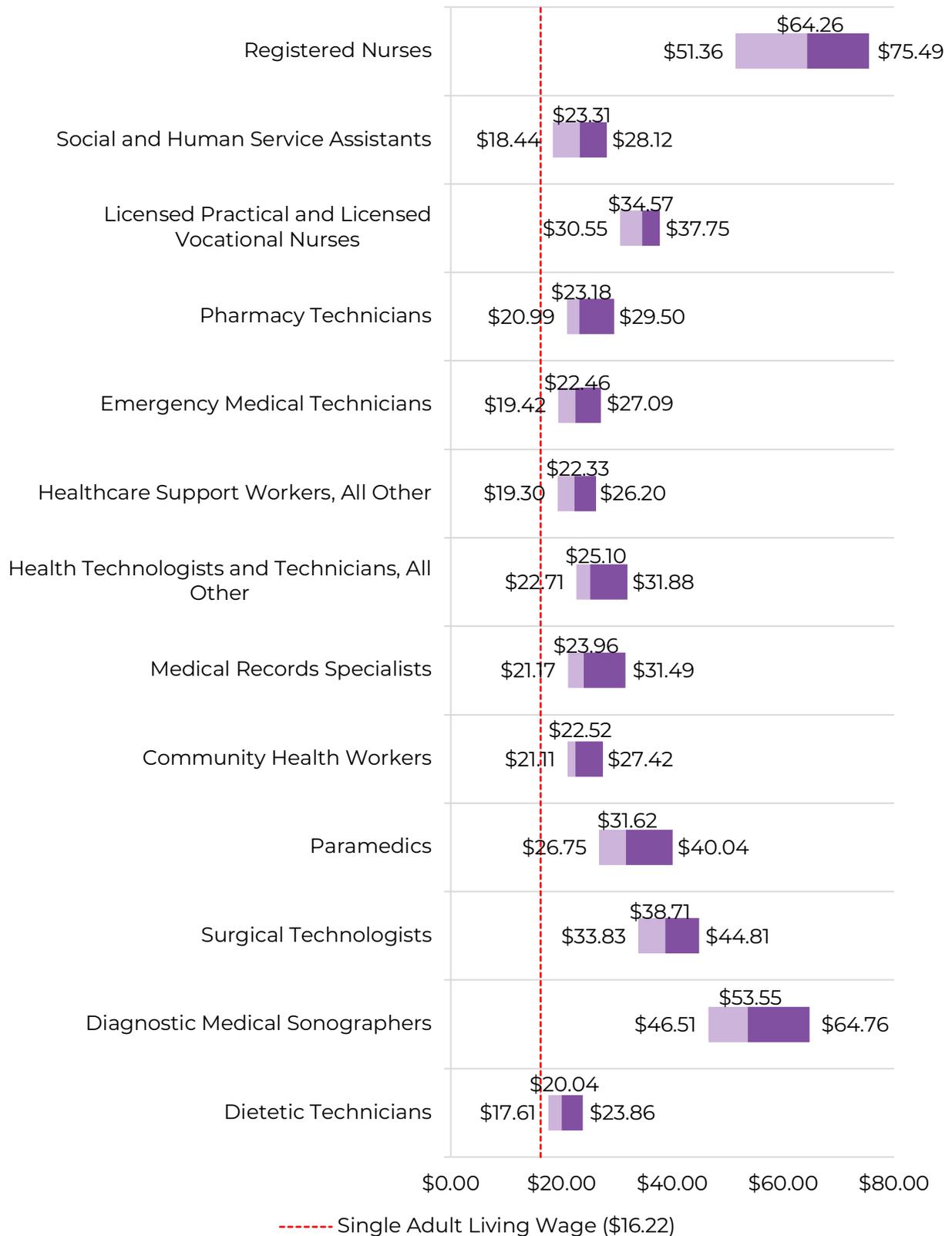


- Health

Exhibit 17. Far North health priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Registered Nurses	6,853	512	7%	495
Social and Human Service Assistants	1,928	535	28%	337
Licensed Practical and Licensed Vocational Nurses	1,626	145	9%	162
Pharmacy Technicians	894	57	6%	102
Emergency Medical Technicians	478	23	5%	50
Healthcare Support Workers, All Other	412	43	10%	69
Health Technologists and Technicians, All Other	408	84	20%	49
Medical Records Specialists	387	24	6%	32
Community Health Workers	290	48	17%	42
Paramedics	203	20	10%	16
Surgical Technologists	197	53	27%	25
Diagnostic Medical Sonographers	166	35	21%	17
Dietetic Technicians	149	37	25%	26

Exhibit 18. Far North health priority occupation wage ranges



- ICT/Digital Media

Exhibit 19. Far North ICT/digital media priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Jobs Change (%)	Annual Openings
Computer User Support Specialists	719	82	11%	68
Web and Digital Interface Designers	177	72	40%	31
Web Developers	137	69	51%	27

Exhibit 20. Far North ICT/digital media priority occupation wage ranges

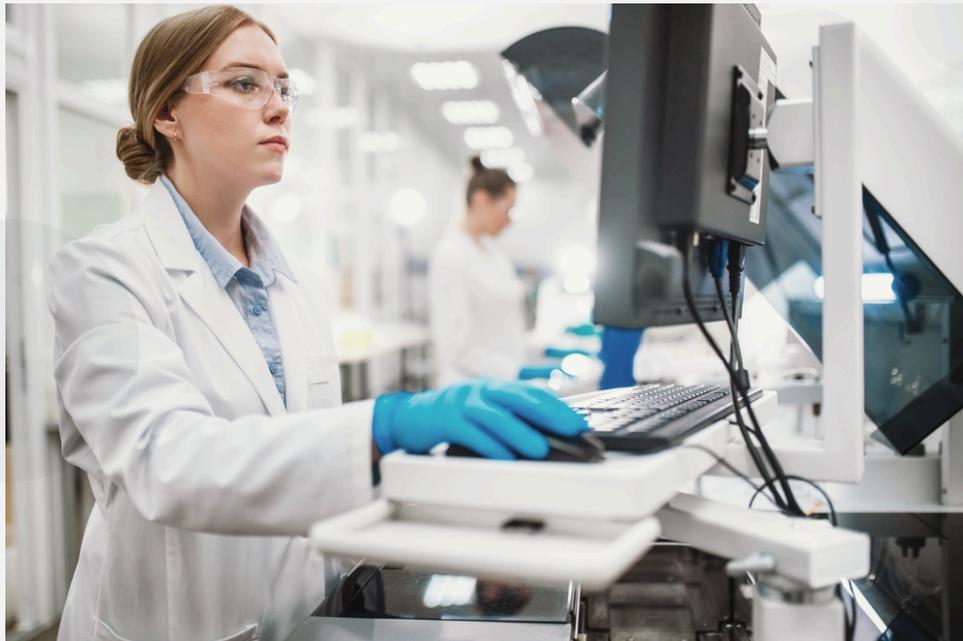


● Life Sciences & Biotechnology

In 2023, eight key occupations within the life sciences & biotechnology sector accounted for 1,963 jobs in the Far North, with 87% of the jobs classified as middle-skill. Despite this high concentration of middle-skill roles, none of these occupations were designated as priority occupations, primarily because they did not meet the threshold for projected job growth. The middle-skill occupations associated with this sector include:

- Biological Technicians
- Chemical Technicians
- Life, Physical, and Social Science Technicians, All Other
- Clinical Laboratory Technologists and Technicians
- Medical Equipment Repairers
- Inspectors, Testers, Sorters, Samplers, and Weighers

Between 2023 and 2028, these six middle-skill occupations are projected to generate over 200 job openings annually across the Far North. Most of these openings will be for inspectors, science technicians (categorized as "all other"), clinical laboratory technologists and technicians, and biological technicians.

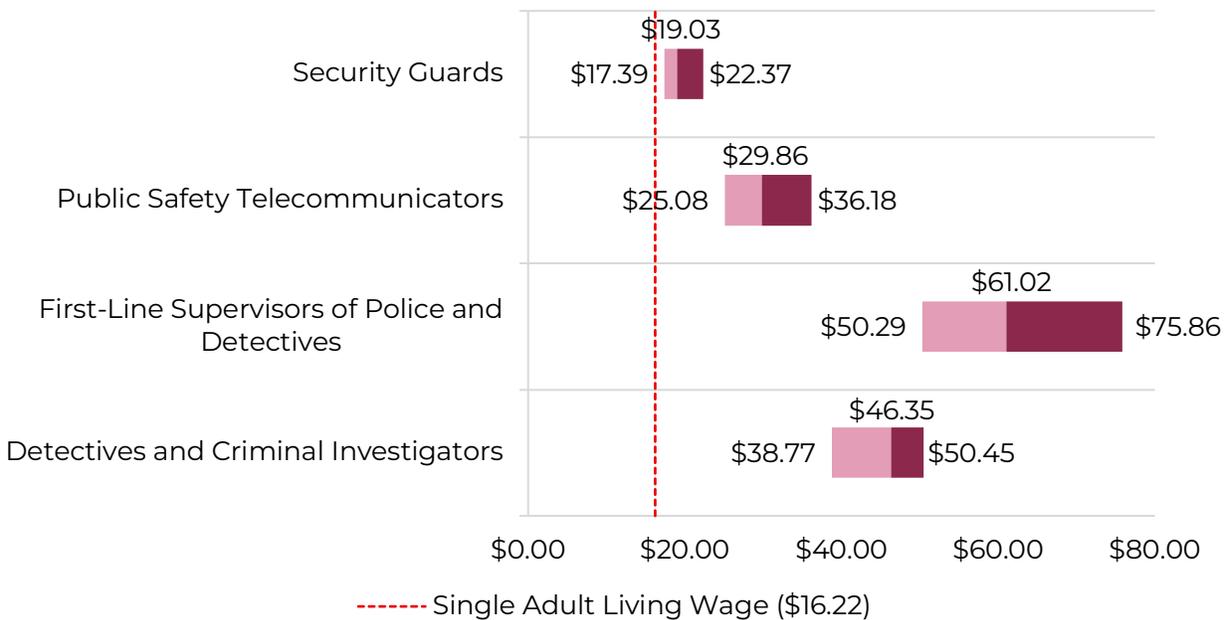


- Public Safety

Exhibit 21. Far North public safety priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Security Guards	1,632	200	12%	279
Public Safety Telecommunicators	422	43	10%	53
First-Line Supervisors of Police and Detectives	381	114	30%	53
Detectives and Criminal Investigators	135	25	18%	16

Exhibit 22. Far North public safety priority occupation wage ranges

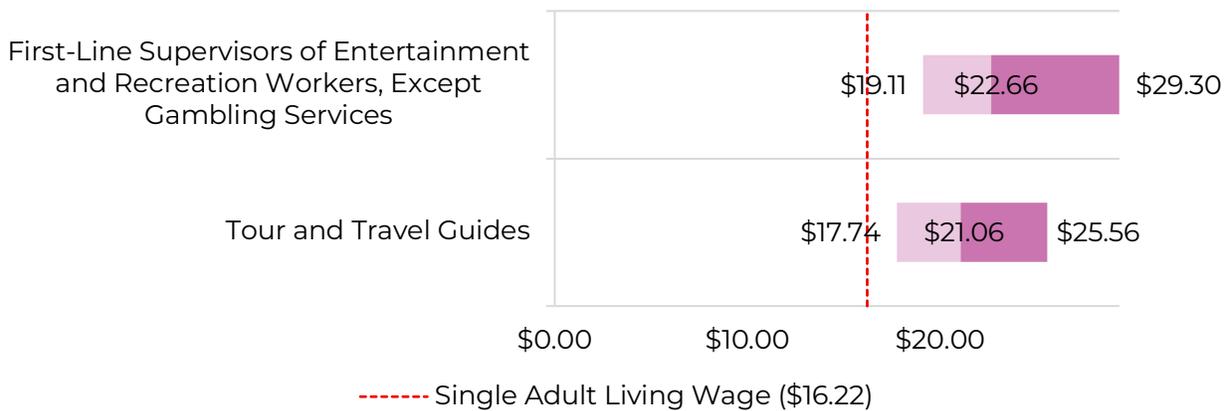


- Retail, Hospitality & Tourism

Exhibit 23. Far North retail, hospitality, & tourism priority occupation

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Jobs Change (%)	Annual Openings
First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	299	37	12%	43
Tour and Travel Guides	208	20	9%	52

Exhibit 24. Far North retail, hospitality, & tourism priority occupation

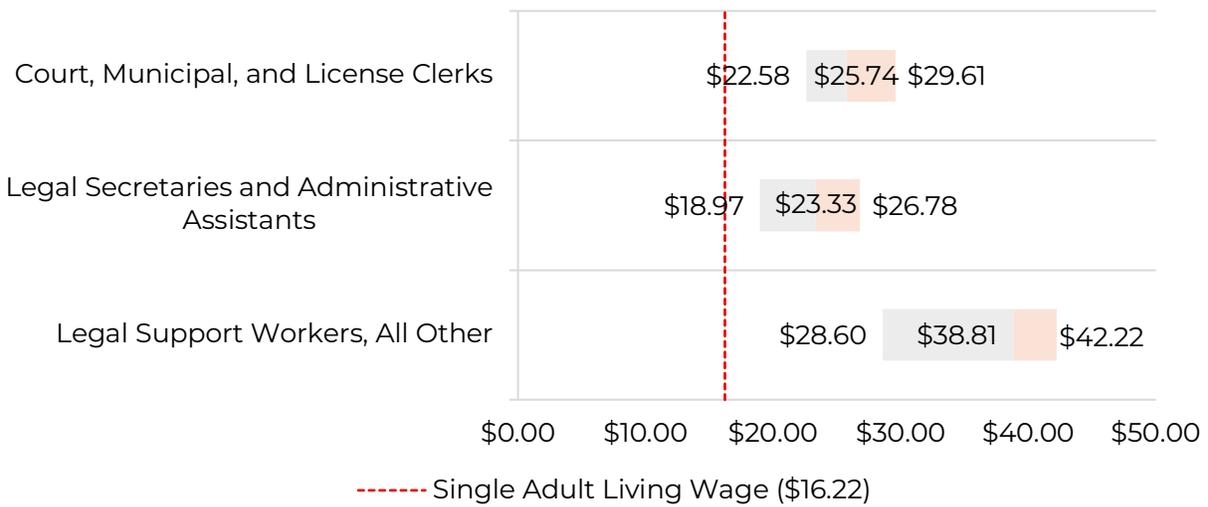


- Unassigned

Exhibit 25. Far North unassigned priority occupations

Occupation	2023 Jobs	2023-2028 Projections		
		Job Change (#)	Job Change (%)	Annual Openings
Court, Municipal, and License Clerks	565	48	9%	73
Legal Secretaries and Administrative Assistants	210	30	14%	41
Legal Support Workers, All Other	119	10	9%	18

Exhibit 26. Far North unassigned priority occupation wage ranges



Priority Programs in the Far North

This report also analyzes career education programs at Far North community colleges that prepare learners for the previously identified priority occupations. The Far North COE identified 111 TOP code programs aligned with these occupations, 44 of which are currently offered by community colleges; these are referred to as "priority programs." Exhibit 27 presents an overview of the 44 priority programs, organized by the California Community College Chancellor's Office sector framework.

The ICT/digital media sector accounts for the largest share of priority programs, representing nearly one-fifth of the total, with nine out of 44 programs (Exhibit 27). This is followed by health and energy, construction & utilities, each with seven priority programs, and business & entrepreneurship with six.

In contrast, the life sciences & biotechnology sector, despite its high concentration of middle-skill jobs, lacks designated priority occupations or programs in the Far North. This reflects limited projected job growth within the sector across the subregion, a key criterion for program and occupation prioritization.

Exhibit 27. Far North community college priority programs

Advanced Manufacturing	Advanced Transportation & Logistics	Agriculture, Water & Environmental Technologies
<ul style="list-style-type: none"> • Computer Electronics (0934.10) • Engineering Technology, General (requires Trigonometry) (0924.00) • Industrial Systems Technology and Maintenance (0945.00) • Manufacturing and Industrial Technology (0956.00) 	<ul style="list-style-type: none"> • Automotive Technology (0948.00) • Diesel Technology (0947.00) • Heavy Equipment Operation (0947.30) 	<ul style="list-style-type: none"> • Parks and Outdoor Recreation (0115.10)

Business & Entrepreneurship

- Business Administration (0505.00)
- Business and Commerce, General (0501.00)
- Business Management (0506.00)
- Legal Office Technology (0514.10)
- Management Development and Supervision (0506.30)
- Small Business and Entrepreneurship (0506.40)

Education & Human Development

- Child Development/Early Care and Education (1305.00)

Energy, Construction & Utilities

- Architectural Drafting (0953.10)
- Carpentry (0952.10)
- Construction Crafts Technology (0952.00)
- Construction Inspection (0957.20)
- Drafting Technology (0953.00)
- Electrical (0952.20)
- Energy Systems Technology (0946.10)

Health

- Emergency Medical Services (1250.00)
- Health Information Coding (1223.10)
- Health Information Technology (1223.00)
- Licensed Vocational Nursing (1230.20)
- Paramedic (1251.00)
- Registered Nursing (1230.10)
- Respiratory Care/Therapy (1210.00)

ICT/Digital Media

- Computer Information Systems (0702.00)
- Computer Infrastructure and Support (0708.00)
- Computer Support (0708.20)
- Digital Media (0614.00)
- Geographic Information Systems (2206.10)
- Graphic Art and Design (1030.00)

Life Sciences & Biotechnology

- N/A

Health

ICT/Digital Media

Life Sciences & Biotechnology

- Information Technology, General (0701.00)
- Website Design and Development (0614.30)
- World Wide Web Administration (0709.00)

Public Safety

Retail, Hospitality & Tourism

Unassigned

- Administration of Justice (2105.00)
- Forensics, Evidence, and Investigation (2105.40)
- Police Academy (2105.50)

- Hospitality (1307.00)
- Retail Store Operations and Management (0506.50)

- Human Services (2104.00)

Between the 2021–2022 and 2023–2024 academic years, the Far North's priority programs awarded an average of 2,200 awards annually, as shown in Exhibit 28. The health sector accounted for the largest share, conferring an average of 625 awards per year, approximately 28 percent of all priority program awards. The next largest contributor was the business & entrepreneurship sector, which conferred an average of 500 awards annually.

Exhibit 28. Far North priority program awards by sector

CCCCO Sector	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Average
Advanced Manufacturing	69	61	50	60
Advanced Transportation & Logistics	87	122	151	120
Agriculture, Water & Environmental Technologies	1	3	0	1
Business & Entrepreneurship	413	478	609	500
Education & Human Development	331	309	301	314
Energy, Construction & Utilities	71	68	69	69
Health	688	631	555	625
ICT/Digital Media	97	91	78	89
Life Sciences & Biotechnology	0	0	0	0
Public Safety	306	342	386	345
Retail, Hospitality & Tourism	12	10	23	15
Unassigned	32	51	108	64
Priority Program Award Totals	2,107	2,166	2,330	2,201



A comparison of priority occupation demand and corresponding program awards reveals a subregional undersupply of skilled workers in the Far North (Exhibit 29). This shortage varies by sector, with some facing more severe gaps than others.

The most acute gap is in energy, construction & utilities, which projects 834 annual job openings through 2028 but produces only 69 related awards per year, a 12-to-1 shortfall. In contrast, the health sector faces a smaller gap, with 1,422 openings and 625 awards annually, equating to a 2-to-1 ratio. Most other sector shortages fall somewhere between these two extremes.

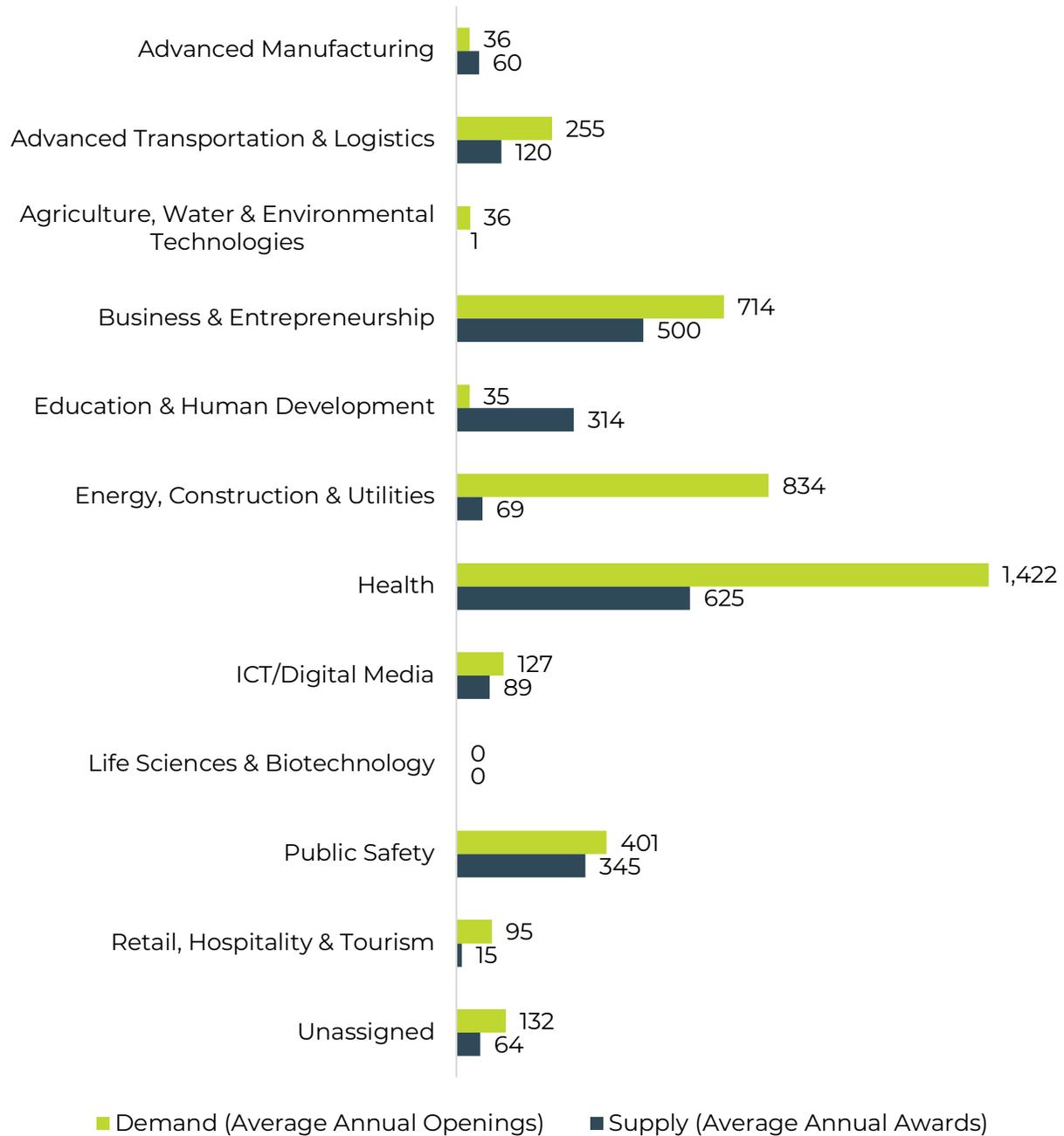
Interestingly, the advanced manufacturing and education & human development sectors show signs of potential oversupply (Exhibit 29). However, in both cases, the priority programs support a broader set of occupations beyond those formally designated as priority. For example:

- In advanced manufacturing, programs also prepare students for various engineering technologist and technician roles.
- In education & human development, the singular program, child development/early care and education, aligned with the sole priority occupation—kindergarten teachers—also serves a wider range of educational roles, including childcare workers and preschool teachers.

Including demand from these additional occupations could significantly affect the supply-demand analysis.

As previously noted, the life sciences and biotechnology sector, despite its high share of middle-skill jobs, had no identified priority occupations or programs, due to limited projected job growth.

Exhibit 29. Far North priority occupational demand vs priority program supply



● Conclusion

The *Priority Jobs and Programs in the Far North* report highlights key opportunities for community colleges to take a leading role in addressing subregional workforce needs by aligning education and training with high-opportunity, middle-skill occupations. The 50 identified priority occupations span various sectors, including health, business, public safety, construction, and logistics. These roles offer stable employment, living wages, and strong long-term demand, representing over 36,000 jobs in the subregion, with a projected growth rate of 11% and nearly 4,100 annual openings.

To support these workforce needs, the report identifies 44 community college programs as "priority programs" most closely aligned with the targeted occupations. However, significant supply gaps persist. For instance, the energy, construction & utilities sector projects nearly 834 job openings annually, yet colleges are awarding only 69 related awards per year, a ratio of 12-to-1. Imbalances exist across most other sectors, including health, agriculture, ICT/digital media and public safety. Conversely, fields such as advanced manufacturing may be producing more graduates than are needed for narrowly defined priority roles, signaling a need for broader alignment within the sector.

The report's findings point to several implications for practice and potential impacts, including:

- > **Strengthening program alignment to middle-skill workforce demand:** The analysis highlights the significant role of middle-skilled occupations, accounting for 45% of jobs and 43% of projected openings in the Far North's labor market. Community colleges are well-positioned to meet this demand, but alignment between program offerings and labor market need is uneven. For example, the energy, construction & utilities sector is facing a severe workforce gap while other sectors, like ICT/digital media, show strong projected growth but have limited program capacity.
- > **Addressing sector-specific gaps and opportunities:** The supply-demand analysis revealed imbalances across sectors. Oversupply risks in sectors such as advanced manufacturing and education & human development are likely overstated, as these programs serve a broad range of occupations beyond those identified in this report. The life sciences & biotechnology sector stands out for having no identified priority occupations or programs, despite a high concentration of middle-skill jobs (87%), indicating a potential missed opportunity in the Far North.
- > **Informing strategic planning and funding priorities:** This report provides a clear foundation for strategic planning, encompassing curriculum development and program investment decisions, enrollment targeting and

marketing efforts, as well as workforce partnerships and sector advisory engagement. These findings can also support grant applications, enhanced subregional planning under the Strong Workforce Program and Perkins initiatives, and targeted dual enrollment and CTE pathways for high school students and adult learners.

- > **Reinforcing equity and subregional inclusion:** Although not the focus of this report, a follow-up report will address equity and cross-regional disparities in program and labor market outcomes.

Recommendations

Community colleges and subregional workforce stakeholders should use this report to:

- > Prioritize developing, expanding, or revising programs in sectors with high demand and limited supply, especially where high-wage, stable jobs are available.
- > Consider how this report can be utilized to expand the scope of program alignment assessments, address the demand for priority occupations, and incorporate emerging sector trends and transferable skills into curriculum planning.
- > Ensure that resources are channeled toward high-opportunity, high-need areas, increasing student employability and addressing employer needs more effectively.
- > Be prepared to integrate these findings into ongoing planning to ensure inclusive economic mobility and equitable workforce participation across the Far North.

Appendix A. Methodologies

Priority Occupations Methodology

The Far North COE applied a multi-step process to analyze and identify top – or priority - occupations in the subregion. This process considers multiple data points. Far North COE scored and ranked 796 occupations (excluding military and unclassified) based on 12 criteria, with a maximum score of 12 and a minimum score of zero:

Exhibit A1. Priority occupation ranking metrics and criteria

Metric	Criteria Description	Criteria Value
2023 Jobs	The occupation's 2023 job count is greater than or equal to the median number of all jobs within the subregion	114
2018-2023 % Change	The last five years of historic job % change was stable or positive	0%
2023 - 2028 % Change	The next five years of projected job % change meets or exceeds the subregional average job growth rate	4.76%
Avg. Annual Openings	Average annual openings for the occupation meet or exceed the median number of annual job openings across all occupations in the subregion	15
U.S. News & World Report 2025 Best Jobs	Occupation was listed as top or best job on the 2025 U.S. News and World Report Top Occupations list	Yes
Skill Level	The occupation is middle-skilled	Middle-Skill
Living Wage 1 <i>(25th percentile hourly earnings vs. SSS Single Adult)</i>	The occupation's 25th percentile hourly earnings meet or exceed the weighted average self-sufficiency living wage threshold for a single adult living in the subregion	\$16.22
Living Wage 2 <i>(25th percentile hourly earnings vs. MIT Single Adult)</i>	The occupation's 25th percentile hourly earnings meet or exceed the weighted average MIT living wage threshold for a single adult living in the subregion	\$22.75

Metric	Criteria Description	Criteria Value
Living Wage 3 <i>(Median percentile hourly earnings vs. SSS Single Adult + Infant)</i>	The occupation's median hourly earnings meet or exceed the weighted average self-sufficiency living wage threshold for one adult and one child living in the subregion	\$33.87
Living Wage 4 <i>(Median percentile hourly earnings vs MIT Single Adult + one Child)</i>	The occupation's median hourly earnings meet or exceed the weighted average MIT living wage threshold for one adult and one child living in the subregion	\$40.59
Turnover	The occupation's turnover rate is below the subregional average turnover rate across all occupations.	59%
Automation	The occupation's automation index score is below the average automation score determined for the subregion.	110

After the scoring was completed, the entire list of 796 occupations was sorted in descending order based on scores (from 12 to zero) and 2023 jobs, then the following filters were applied:

- **Middle-skilled.** These top occupations typically require more education and training than a high school diploma but less than a bachelor's degree.
- **Pay a living wage.** These occupations have entry-level hourly earnings that meet or exceed the Far North weighted average living wage of \$16.22 per hour.
- **Projected growth.** These occupations have projected job growth that meets or exceeds Far North's average job growth of 4.76% over the next five years (2023-2028).
- **Annual openings.** And last, these occupations have at least 15 annual job openings, which is the median number of projected yearly openings across all occupations in the Far North subregion through 2028.

The Far North COE identified a total of 64 occupations that met these criteria. The final 50 occupations were selected after testing the order in which the filters were applied and ranking the top 64 occupations. All 64 occupations earned a rank of 6 to 12 points. While this report focuses on the top 50 priority occupations, the remaining 14 occupations that met the criteria but were not included in the analysis of this report are listed in Appendix B.

Priority Programs Methodology

To identify priority programs, the Far North COE used the Statewide Center of Excellence's TOP-CIP-SOC crosswalk to match programs with priority occupations. With the exception of many health-related fields, most occupations are aligned with multiple TOP codes. As a result, nearly all TOP codes linked to a priority occupation were included in the analysis. Any TOP code that appeared misaligned or irrelevant was excluded.

After identifying all relevant TOP codes, the COE reviewed program availability in the subregion using awards data from DataMart and the Chancellor's Office Curriculum Inventory (COCI). Programs that were designated as "priority" were marked as "active" in COCI. A complete list of relevant TOP codes is provided in Appendix B.

• Appendix B. Additional Tables

Exhibit B1. Complete list of Far North priority occupations (all 64)

Total Points	Lightcast SOC Code	Lightcast Occupation
12	29-1141	Registered Nurses
12	11-1021	General and Operations Managers
12	29-2032	Diagnostic Medical Sonographers
11	11-3012	Administrative Services Managers
11	33-1012	First-Line Supervisors of Police and Detectives
11	11-3071	Transportation, Storage, and Distribution Managers
11	11-3013	Facilities Managers
11	51-8013	Power Plant Operators
11	15-1255	Web and Digital Interface Designers
11	33-3021	Detectives and Criminal Investigators
10	47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
10	47-2111	Electricians
10	49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
10	13-1031	Claims Adjusters, Examiners, and Investigators
10	47-4011	Construction and Building Inspectors
10	25-2012	Kindergarten Teachers, Except Special Education
10	13-1081	Logisticians
10	29-2055	Surgical Technologists
10	49-3011	Aircraft Mechanics and Service Technicians
10	53-2012	Commercial Pilots
10	15-1254	Web Developers
9	47-2073	Operating Engineers and Other Construction Equipment Operators
9	29-2061	Licensed Practical and Licensed Vocational Nurses
9	29-2052	Pharmacy Technicians
9	15-1232	Computer User Support Specialists
9	13-1051	Cost Estimators
9	43-5031	Public Safety Telecommunicators
9	49-9051	Electrical Power-Line Installers and Repairers
9	21-1094	Community Health Workers
9	49-9052	Telecommunications Line Installers and Repairers
9	29-2043	Paramedics
9	17-3011	Architectural and Civil Drafters
9	23-2099	Legal Support Workers, All Other

Total Points	Lightcast SOC Code	Lightcast Occupation
9	17-3028	Calibration Technologists and Technicians
8	33-9032	Security Guards
8	47-2152	Plumbers, Pipefitters, and Steamfitters
8	43-4031	Court, Municipal, and License Clerks
8	29-2042	Emergency Medical Technicians
8	31-9099	Healthcare Support Workers, All Other
8	29-2099	Health Technologists and Technicians, All Other
8	29-2072	Medical Records Specialists
8	49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
8	29-2056	Veterinary Technologists and Technicians
8	49-9044	Millwrights
8	53-6051	Transportation Inspectors
7	21-1093	Social and Human Service Assistants
7	39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services
7	43-6012	Legal Secretaries and Administrative Assistants
7	39-7018	Tour and Travel Guides
7	29-2051	Dietetic Technicians
7	47-2231	Solar Photovoltaic Installers
7	29-2053	Psychiatric Technicians
7	29-2081	Opticians, Dispensing
7	47-2071	Paving, Surfacing, and Tamping Equipment Operators
6	45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers
6	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
6	51-4041	Machinists
6	43-9021	Data Entry Keyers
6	47-2211	Sheet Metal Workers
6	43-5011	Cargo and Freight Agents
6	47-2121	Glaziers
6	49-9043	Maintenance Workers, Machinery
6	31-1133	Psychiatric Aides
6	43-9022	Word Processors and Typists

Exhibit B2. Full list of CCCCO TOP code programs aligned to priority occupations

TOP Program Title & Code	TOP Program Title & Code
Administration of Justice-210500	Heavy Equipment Operation-094730
Aeronautical and Aviation Technology-095000	Hospital and Health Care Administration-120200
Aircraft Fabrication-095050	Hospital Central Service Technician-120900
Applied Design-100900	Hospitality-130700
Architectural Drafting-095310	Human Services-210400
Architecture and Architectural Technology-020100	Industrial and Transportation Security-210530
Artificial Inseminator-010220	Industrial Systems Technology and Maintenance-094500
Automotive Technology-094800	Infants and Toddlers-130590
Aviation Airframe Mechanics-095010	Information Technology, General-070100
Aviation and Airport Management and Services-302000	Instrumentation Technology-094300
Aviation and Airport Management-302010	Insurance-51200
Aviation Powerplant Mechanics-095020	International Business and Trade-050800
Banking and Finance-050400	Laser and Optical Technology-093480
Biomedical Instrumentation-093460	Legal and Community Interpretation-214000
Biotechnology and Biomedical Technology-043000	Legal Office Technology-051410
Business Administration-050500	Licensed Vocational Nursing-123020
Business and Commerce, General-050100	Lodging Management-130720
Business Management-050600	Logistics and Materials Transportation-051000
Carpentry-095210	Management Development and Supervision-050630
Child Development-Early Care and Education-130500	Manufacturing and Industrial Technology-095600
Civil and Construction Management Technology-095700	Masonry, Tile, Cement, Lath and Plaster-095260
Civil Drafting-095320	Nursing-123000
Community Health Care Worker-126100	Office Management-051440
Computer Electronics-093410	Other Health Occupations-129900
Computer Information Systems-070200	Other Public and Protective Services-219900
Computer Infrastructure and Support-070800	Painting, Decorating, and Flooring-095270
Computer Programming-070710	Paralegal-140200
Computer Software Development-070700	Paramedic-125100

TOP Program Title & Code

Computer Support-070820
 Construction Crafts Technology-095200
 Construction Inspection-095720
 Corrections-210510
 Diagnostic Medical Sonography-122700
 Diesel Technology-094700
 Dietetic Services and Management-130620
 Dietetic Technology-130660
 Digital Media-061400
 Drafting Technology-095300
 Drywall and Insulation-095280
 E-Commerce (technology emphasis)-070910
 Educational Aide (Teacher Assistant), Bilingual-080210
 Electrical Systems and Power Transmission-093440
 Electrical-095220
 Electron Microscopy-093470
 Electro-Neurodiagnostic Technology-121200
 Electronics and Electric Technology-093400
 Emergency Medical Services-125000
 Energy Systems Technology-094610
 Engineering Technology, General-092400
 Forensics, Evidence, and Investigation-210540
 Geographic Information Systems-220610
 Glazing-095240
 Graphic Art and Design-103000
 Health Facility Unit Coordinator-120830
 Health Information Coding-122310
 Health Information Technology-122300

TOP Program Title & Code

Parks and Outdoor Recreation-011510
 Pharmacy Technology-122100
 Piloting-302020
 Plumbing, Pipefitting and Steamfitting-095230
 Police Academy-210550
 Polysomnography-121100
 Preschool Age Child-130540
 Public Administration-210200
 Purchasing-050920
 Radiation Therapy Technician-122600
 Recreation Assistant-083610
 Recreational Vehicle Service-094850
 Registered Nursing-123010
 Resort and Club Management-130730
 Respiratory Care-Therapy-121000
 Retail Store Operations and Management-050650
 Roofing-095290
 Sign Language Interpreting-085010
 Small Business and Entrepreneurship-050640
 Software Applications-070210
 Surgical Technician-121700
 Telecommunications Technology-093430
 The School Age Child-130550
 Travel Services and Tourism-300900
 Veterinary Technician (Licensed)-010210
 Website Design and Development-061430
 World Wide Web Administration-070900

• Appendix C. Data Sources

This report includes occupations identified by using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and the O*Net OnLine education crosswalk. This report's findings were primarily determined with labor market and educational supply data from the Bureau of Labor Statistics (BLS), Lightcast, and the California Community Colleges Chancellor's Office.

Data sources include:

"The Chancellor's Office Curriculum Inventory System (COCI)." California Community Colleges Curriculum Inventory (COCI). 2025. <https://coci2.ccctechcenter.org/>.

Glasmeier, Amy K. "Living Wage Calculator." Living Wage Calculator. 2025. <https://livingwage.mit.edu/>.

Lightcast 2025.2; QCEW Employees, Non-QCEW Employees, and Self-Employed. <https://lightcast.io/>. (Notes: Occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors).

Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <https://datamart.cccco.edu/>.

O*NET OnLine. U.S. Department of Labor/Employment and Training Administration (DOL ETA). <https://www.onetonline.org/>.

The Self-Sufficiency Standard for California. The Center for Women's Welfare at the University of Washington. 2024. <http://www.selfsufficiencystandard.org/>

"Taxonomy of Programs." California Community Colleges Chancellor's Office. May 2023, 7th Edition. <https://www.cccco.edu/-/media/CCCCO-Website/docs/curriculum/final-top-code-manual-2023edit-4-ally.pdf?la=en&hash=28074BFE9915B49A7688B8BDEF0DB7E55FEB3A2C>

"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. June 2021 Edition. <http://coecc.net/>

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The Centers of Excellence (COE) for Labor Market Research provide regional workforce research and technical expertise to California Community Colleges, supporting program decision-making and resource development. This information has proven valuable to colleges in initiating, revising, or updating economic development and Career Education (CE) programs, enhancing grant applications, facilitating the accreditation process, and supporting strategic planning efforts.

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