Maine Broadband Workforce Analysis & Strategy

DRAFT Executive Summary

February 2023

Purpose

The MCA hired the Camoin Associates and its partner Thomas P. Miller and Associates to conduct an assessment of Maine's broadband workforce in order to (1) determine which occupations will be most critical for deploying broadband across the state, (2) to gauge the scale of any workforce shortages, and (3) to craft strategies for how MCA should address employer needs and address barriers experienced by potential workers.

Summary of Findings

The State of Maine faces significant workforce gaps which are likely to impede investment and development of the broadband network. This workforce shortage is exacerbated by a lack of formalized broadband training within the state.

Top Broadband Occupations

The occupations considered most critical for broadband include:

SOC	Occupation
13-1082	Project Management Specialists
15-1252	Software Developers
17-2072	Electronics Engineers, Except Computer
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel
43-4051	Customer Service Representatives
47-2061	Construction Laborers
49-1011	First-Line Supervisors of Mechanics and Installers
49-2021	Radio, Cellular, and Tower Equipment Installers and
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers
49-9098	Helpers--Installation, Maintenance, and Repair Workers

Broadband Workforce Shortages

The State is **currently projected to have an average shortfall of 3,240 workers** in the Top Broadband Occupations across the economy even without additional investment in broadband.

With an increase in broadband deployment, that gap increases to an annual average of 3,624 to 4,531 workers depending on the level of investment ($100 million or $350 million, respectively).

Shortage of broadband training

While there are a number of training programs across the state for the more general Top Broadband Occupations, there are only a handful of training program in existence for specialized fiber optics training: two community college-based pilot programs (Washington County Community College and Central Maine Community College) and two private training providers (Canyon Networks and Fiber Insight).

Need for clearly articulated career pathways

Broadband occupations are not clearly understood and the career pathways between them are not clearly understood by workers, the general public, or community partners.

Communication

There is an urgent need for increased awareness of broadband. There is a lot of competition between initiatives in other industries for workers, resources, and attention. Additionally, most job seekers, educators, and workforce service providers know very little about the fiber optic and telecommunications industry, the related job and career opportunities, or about the skills needed, how to develop them, or their applicability for careers in the industry and beyond.

Coordination

There must be state-level coordination to drive this effort. Just as the market will not take care of getting broadband to all premises, the workforce market will not automatically provide a pipeline of broadband workers. There are already plenty of good organizations, programs, resources, and services in place across Maine, but central coordination is needed, particularly in the education-to-career pathways.
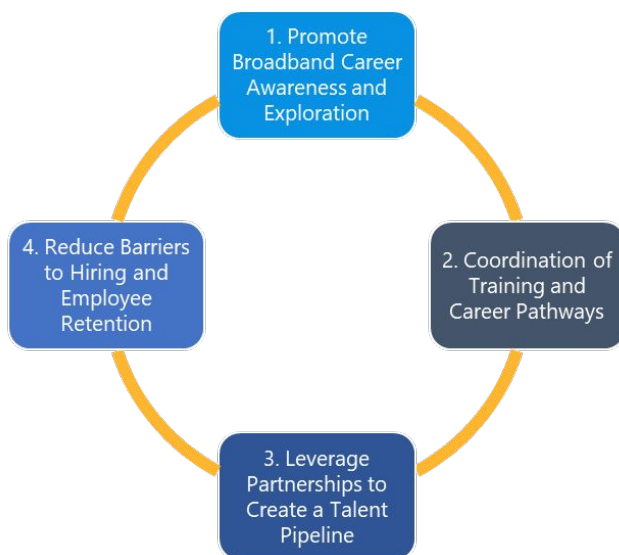
Partnerships

In order to scale up the broadband workforce quickly, existing partnerships and resources must be leveraged, including with employers, educational institutions, and community partners. These partnerships must move rapidly beyond communications and coordination to deep collaboration with formal and informal agreements and the appropriate resources to implement them.

Workforce Development Strategies

To address the needs of the broadband industry in Maine, the MCA should proactively provide state-level coordination and pursue workforce development strategies that strengthen the workforce for all broadband providers and partners. The table below outlines the strategies and actions MCA should pursue.

	Strategy	Description	Actions
1.	Promote Broadband Career Awareness and Exploration	Direct actions to educate and advocate for broadband careers	1. Provide career awareness and exploration 2. Create a Maine Broadband Career Hub 3. Increase In-House Workforce Capacity 4. Provide job matching
2.	Coordination of Training and Career Pathways	Strategies to ensure learners, educators, and service providers understand the broadband industry	1. Enhance work-based learning opportunities 2. Incorporate broadband modules into existing CTE, higher education, and vocational curriculum. 3. Offer training reimbursement 4. Ensure curricula is industry-informed 5. Ensure stackable credentials and prior credit for learning 6. Create a training program directory 7. Create sample education-to-career pathways
3.	Leverage Partnerships to Create a Talent Pipeline	Collaborative actions towards expanding the labor force and the development of a broadband staffing pipeline	1. Partner with Staffing Agencies 2. Outreach to individuals with disabilities 3. Outreach to Minority, Indigenous, and Immigrant Communities 4. Outreach to addiction and reentry communities 5. Outreach to military and veterans 6. Outreach to women
4.	Reduce Barriers to Hiring and Employee Retention	Activities to ensure employers successfully attract talent, build presence in communities, and reduce attrition	1. Prescreen applicants 2. Provide soft skills training 3. Provide HR training resources