



WRTP | BIG STEP
PAVING THE WAY

PSC BROADBAND WORKFORCE INTERIM REPORT

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ABOUT THIS REPORT

The work of the Broadband Workforce Development Coalition and WRTP | BIG STEP has emerged as the best practice model for states like Wisconsin looking to leverage BEAD funding for workforce development efforts to support broadband deployment.

This report provides some highlights on collaborative efforts that include input from all 11 of the state's local workforce boards, the technical colleges, telecoms, internet service providers, and construction companies (just to name a few).

As a coalition partner of the Wisconsin Broadband Workforce WRTP | BIG STEP has worked closely with the National Telecommunications and Information Administration to prioritize the importance of workforce funding and support policies, making workforce programs eligible for funding under the BEAD program.

Registered apprenticeships, pre-apprenticeships, community college, and/or vocational training for broadband-related occupations and coalitions like the Wisconsin Broadband Workforce Coalition are all eligible to receive funding.

The Wisconsin Broadband Workforce Development Coalition's sector-based partnership brings together state and national stakeholders from government, industry, education, and training providers to develop, implement, and promote broadband workforce training programs.

Their partners include Wisconsin's Northwood Technical College, their nationally recognized broadband apprenticeship programs, as well as the Wireless Infrastructure Association and the Telecommunications Industry Registered Apprenticeship Program (TIRAP).

Other national partners include the Fiber Broadband Association, the National Rural Broadband Association, and a number of large telecommunication companies and contractors planning to bury fiber and build towers.

As workforce intermediaries, WRTP | BIG STEP is positioned to serve as the convener of the employers who are going to do the work, the training providers who are going to skill up the workforce, and the job seekers who are going to step up and provide the boots on the ground.

As employers deal with record low unemployment, aging workforce, and declining birthrates, addressing barriers to entry and engaging traditionally disadvantaged workforce like women and people of color must be a priority.



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EXECUTIVE SUMMARY

WRTP | BIG STEP has conducted an analysis of broadband workforce data and information; convened meetings with local, state, and national stakeholders; and explored the impact of the impending BEAD funding. The findings from this comprehensive work indicate there are currently not enough workers to meet the demands of the broadband requirements, which necessitates an immediate commitment and focus on workforce development.

WRTP | BIG STEP worked closely with the Wisconsin Broadband Workforce Coalition and its members, which include representatives from state and national telecommunications and broadband entities, employer and industry associations, all 11 of Wisconsin's workforce development boards, the Wisconsin Technical College System, labor organizations, private nonprofit community-based organizations, and many additional stakeholders.

Summarily, these stakeholders unanimously identified workforce as the priority step in achieving connectivity under the BEAD program, specifically acknowledging that this program is nationwide in scale, highly time sensitive, and requiring a dedicated career pathway plan that incorporates specialty skills and competencies.

While specific, broadband-adjacent data is not currently collected in Wisconsin, we examined data from several parallel sources, including from Ohio, where a full-scale study estimates that the \$500 million in federal investments in broadband subsequently will create more than 1,250 direct construction jobs, more than 32,000 jobs from network infrastructure deployment, and another 75,000 indirect jobs from new and improved business use cases across industries.

The US Commerce Department believes that federal broadband funding will create between 100,000 and 200,000 jobs nationwide. To help fill those positions, NTIA is allowing states to use their BEAD money to do apprenticeships, job training, and recruiting.

Given the more than \$1.5 billion investment coming to Wisconsin, much of that investment will need to be focused on addressing the need for workforce.

"We as a nation likely do not have a large or diverse enough workforce to make good on this investment without taking significant steps, including engaging unemployed and underemployed workers from this sector and adjacent sectors."

- America Achieves & The Center on Rural Innovation



OVERVIEW OF WISCONSIN WORKFORCE

Wisconsin's workforce ecosystem encompasses various organizations, programs, and initiatives that aim to enhance the skills, employability, and overall economic prosperity of Wisconsin's residents.

Key components of the state's existing workforce development ecosystem include:

Workforce Intermediaries: WRTP | BIG STEP is Wisconsin's largest and most successful statewide workforce intermediary that brings together partners in the workforce system to identify workforce needs; plan, develop, and implement strategies; and raise funds to support these strategies.

State Agencies and Departments: Wisconsin has several government agencies and departments dedicated to workforce development, including the Wisconsin Department of Workforce Development (DWD), which plays a central role in coordinating and implementing various programs and initiatives. It oversees unemployment insurance, job services, apprenticeships, and labor market information.

Workforce Development Boards: Wisconsin is divided into 11 workforce development areas, each governed by a local Workforce Development Board (WDB). These boards comprise representatives from businesses, education providers, labor unions, and community organizations. They identify regional workforce needs, develop strategic plans, and allocate resources to address those needs effectively.

Educational Institutions: Wisconsin's educational institutions, including K-12 schools, technical colleges, and universities, play a crucial role in workforce development. K-12 schools provide foundational education, while technical colleges offer vocational training and certifications in various fields. Universities provide higher education and research opportunities, producing a skilled workforce in diverse industries.

Apprenticeship Programs: Wisconsin emphasizes apprenticeship programs to bridge the skills gap and prepare individuals for well-paying careers. The Wisconsin Apprenticeship System is administered by the Bureau of Apprenticeship Standards under the DWD. It collaborates with employers, educational institutions, and labor unions to offer apprenticeships in sectors such as manufacturing, construction, healthcare, and information technology.

Job Centers: Job Centers throughout Wisconsin offer comprehensive employment services to job seekers and employers. These centers provide job search assistance, career counseling, skills assessments, and connections to training programs. They also facilitate job fairs and recruitment events to connect job seekers with potential employers.

Industry Partnerships: Industry partnerships bring together employers, education providers, and other stakeholders to address specific workforce needs in priority sectors. These collaborations help develop industry-driven training programs, support curriculum development, and ensure that education and training align with current industry demands.

Workforce Training Programs: Wisconsin offers various workforce training programs designed to enhance skills and employability. The Wisconsin Technical College System (WTCS) offers short-term, industry-focused training programs to meet the evolving workforce demands.

Work-Based Learning: Work-based learning initiatives, such as internships, cooperative education, and job shadowing, are integral parts of the workforce development ecosystem. These programs provide hands-on experience, allowing individuals to apply classroom knowledge in real-world settings and develop essential workplace skills.

Regional Economic Development Organizations: Wisconsin has numerous regional economic development organizations that collaborate with businesses, educational institutions, and government entities. These organizations promote economic growth, attract investments, and support workforce development efforts tailored to the unique needs of their regions.

Labor Unions: Wisconsin's union members go through rigorous apprenticeships and on-the-job training. They comprise nearly 80% of today's apprentices in Wisconsin's registered apprenticeship programs on an annual basis, providing a strong pipeline of highly trained technical professionals in the construction industry.

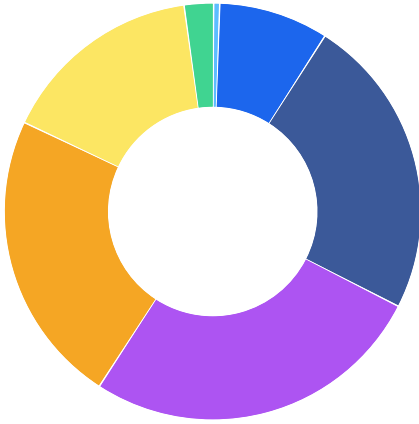
Industry Certifications and Credentials: The state encourages the attainment of industry-recognized certifications and credentials. These credentials validate an individual's skills and knowledge in specific industries, enhancing their employability and career advancement opportunities.

Data and Research: Workforce development in Wisconsin relies on robust labor market information and data analysis. The DWD and other organizations collect and analyze data on employment trends, skills gaps, and industry demands. This information guides decision-making, program development, and resource allocation.



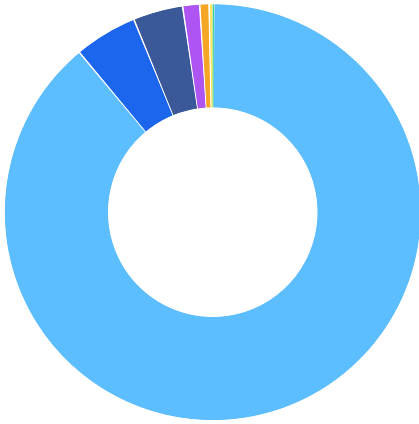
CURRENT BROADBAND WORKFORCE

Occupation Age Breakdown



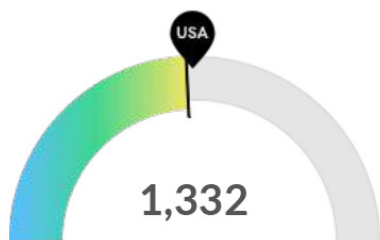
	% of Jobs	Jobs
14 - 18	0.5%	35
19 - 24	8.5%	629
25 - 34	23.5%	1,732
35 - 44	26.7%	1,968
45 - 54	22.9%	1,688
55 - 64	15.8%	1,164
65+	2.3%	168

Occupation Race/Ethnicity Breakdown



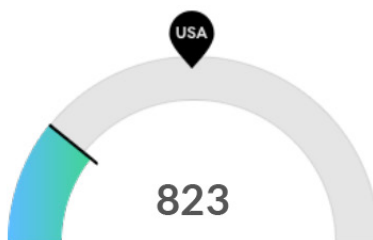
	% of Jobs	Jobs
14 - 18	88.9%	6,561
19 - 24	4.9%	361
25 - 34	3.9%	285
35 - 44	1.3%	97
45 - 54	0.7%	53
55 - 64	0.3%	23
65+	0.0%	3

Retirement Risk is about Average, while Overall Diversity is Low



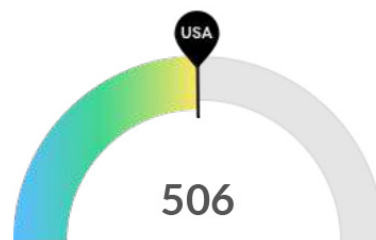
Retiring Soon

Retirement risk is about average in Wisconsin. The national average for an area this size is 1,389* employees 55 or older, while there are 1,332 here.



Racial Diversity

Racial diversity is low in Wisconsin. The national average for an area this size is 2,336* racially diverse employees, while there are 823 here.



Gender Diversity

Gender diversity is about average in Wisconsin. The national average for an area this size is 509* female employees, while there are 506 here.

*National average values are derived by taking the national value for your occupation and scaling it down to account for the difference in overall workforce size between the nation and Wisconsin. In other words, the values represent the national average adjusted for region size.



STAKEHOLDER ENGAGEMENT

WRTP | BIG STEP worked closely with fellow members of the Wisconsin Broadband Workforce Development Coalition to better understand the unique challenges they face today and foresee facing as investment increases.

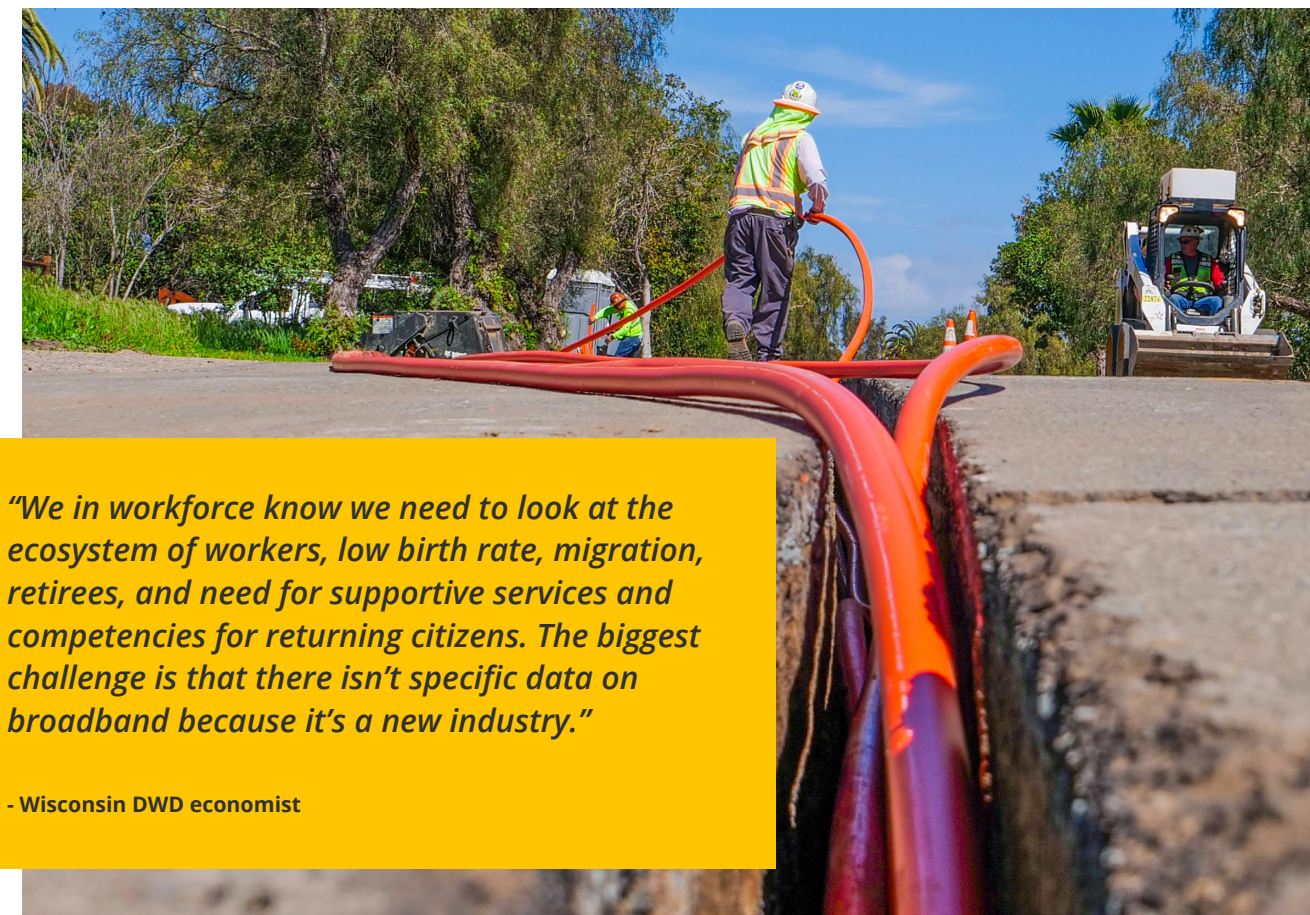
WRTP gathered insight through a series of online surveys, in-person interviews, phone calls, webinars, virtual meetings, and in-person group meetings. A list of supporters of the coalition can be found online at wisconsinbroadbandworkforce.org/partners.

The common concern among employers looking to hire, training providers looking to train and upskill the workforce, and networks of organizations representing the available

workers is that the current workforce pipeline does not include enough people to do the work needed to expand broadband. Steps need to be taken to address the barriers to entry that disadvantaged populations of available workforce face.

There is collective agreement that a lack of available childcare, reliable transportation, and affordable housing are three of the biggest issues facing the available workforce as we prepare to identify and upskill workers to expand broadband in Wisconsin.

There are also challenges related to the lack of specific workforce data available in Wisconsin.



"We in workforce know we need to look at the ecosystem of workers, low birth rate, migration, retirees, and need for supportive services and competencies for returning citizens. The biggest challenge is that there isn't specific data on broadband because it's a new industry."

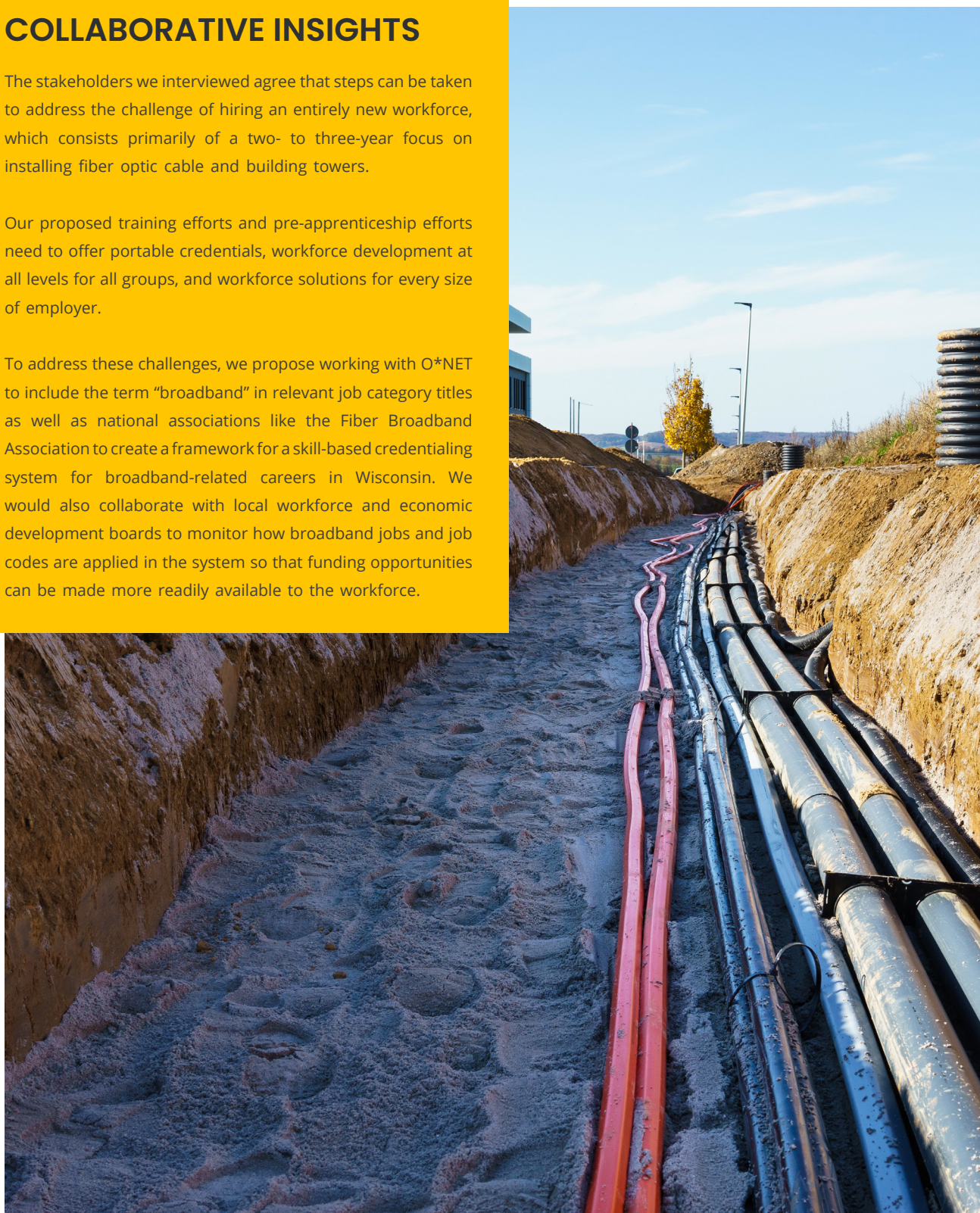
- Wisconsin DWD economist

COLLABORATIVE INSIGHTS

The stakeholders we interviewed agree that steps can be taken to address the challenge of hiring an entirely new workforce, which consists primarily of a two- to three-year focus on installing fiber optic cable and building towers.

Our proposed training efforts and pre-apprenticeship efforts need to offer portable credentials, workforce development at all levels for all groups, and workforce solutions for every size of employer.

To address these challenges, we propose working with O*NET to include the term “broadband” in relevant job category titles as well as national associations like the Fiber Broadband Association to create a framework for a skill-based credentialing system for broadband-related careers in Wisconsin. We would also collaborate with local workforce and economic development boards to monitor how broadband jobs and job codes are applied in the system so that funding opportunities can be made more readily available to the workforce.



RECOMMENDED WORKFORCE DEVELOPMENT STRATEGIES

Support Efforts to Create Pre-Apprenticeship Programs

Wisconsin is positioned well in regard to training providers, technical colleges, and registered apprenticeship programs. We have the right training programs and people to enroll in them.

However, there is still the problem of connecting workers to the training, and we will need funding to address the barriers to entry that disadvantaged populations of workers face.

In conjunction with employers, the Wisconsin Department of Workforce Development Boards, and all 11 of Wisconsin's local workforce development boards, WRTP | BIG STEP is working to develop a pre-apprenticeship program that provides the basic skills and supportive services needed to prepare individuals for a career in the broadband sector.

Invest in Supportive Services

To expand their pool of available workers, policymakers must look beyond traditional labor pools and bring in new, more diverse pipelines of talent and fund the supportive services needed to connect them to employment.

The Northwest Wisconsin Workforce Investment Board, one of eleven Workforce Development Boards within the state of Wisconsin, piloted a program with Northwood Technical College to employ a Training Navigator who works in tandem with the faculty and instructors at Northwood in many programs to walk a student through enrollments, get help or supportive services (childcare, transportation, etc.) when needed, and find the funds for the various industry-based grant programs. This has been wildly successful in the past six months, leading to 89 students in six months who are working with the Training Navigator and receiving funds from various sources.

"We should also strengthen the 'connective tissue' of supportive services. Education, training, and employment systems are decentralized, and the bewildering array of options can overwhelm workers who are juggling busy lives on top of their training needs. Barriers related to transportation, childcare, and mental health often cause program participants to exit programs early. This is a lost opportunity."

- Brookings Institute researchers

Promote Career Awareness in the Broadband Industry

It's universally accepted that the industry needs to recruit significantly more workers. A reoccurring theme among stakeholders was a lack of awareness of the viable career paths offered within the broadband industry.

Jobseekers are often unaware of career opportunities in the broadband industry, and workers within the industry often do not realize that there are opportunities for advancement.

Recommendations included the creation of career awareness efforts specifically targeted at middle and high school-level programs to expose students to the broadband industry.

“They (federal government—particularly legislative) think just because you passed a law, just because you appropriated money, that somehow, you’ve solved the problem. And while you may have helped, you certainly are a long way from having solved the problem because implementation is much more complicated.”

- Ohio Lt. Governor Jon Husted

Lead Wisconsin’s Role in National Efforts to Standardize Nationwide Training Programs, Job Codes, Wages, and Universal Credentialing

Fund Wisconsin workforce development intermediary WRTP | BIG STEP’s efforts to:

Undertake targeted outreach initiatives to ensure that training programs are being implemented and promoted both in rural and urban areas equally.

Gather and survey wage data by career path/skills to support the recognition of broadband careers as high-skill/high-paying jobs.

Oversee a framework for a skill-based credentialing system for broadband-related careers in partnership with national associations like the Fiber Broadband Association.

Collaborate with local workforce and economic development boards on how broadband jobs and job codes are being applied in the system so that funding opportunities can be made more readily available to the workforce.



“The challenge is that there’s not a lot of data—broadband is new and emerging. We need to know more about who these workers are, what the specific job descriptions look like, and what the need is based on location and WDA.”

- Local Workforce Board Director

Address the Unique Demands of the Work: Seasonal, High Liability

Support Wisconsin workforce development intermediary WRTP | BIG STEP's efforts to create a small and minority business owners' program specifically classified within the broadband deployment context. The program could allow smaller-sized contractor companies in good standing access group insurance policies, financing, and general commercial terms at a more beneficial rate if they commit to training new technicians and expanding their workforce.

Address Dwindling Skilled Workforce Due to Retirement and Barriers to Entry

Promote existing WRTP | BIG STEP programs and initiatives focused on outreach (specially focused on underrepresented populations), on-campus recruiting, mentoring new hires, and recognizing the existing workforce. This should also include supporting efforts to promote fair chance hiring platforms and support career pathways for justice-involved individuals in Wisconsin.

"One of the biggest challenges we face in recruiting broadband infrastructure workers is that they often move into power and electric utility subcontracting because those industries have a higher base rate of pay."

- Wisconsin underground contractor

Prioritize Wisconsin Workers

While there may not be federal requirements or rules that require Wisconsin workers to do the work, efforts should be made by across the state to make sure as much of the \$1.5 billion investment as possible goes to employing Wisconsin workers. The investment needs to be tracked and reports issued on who is doing the work, what companies are prioritizing to employ Wisconsin workers, and how is the BEAD investment impacting Wisconsin's workforce development needs for this current project and future infrastructure projects coming to the state.

Leverage Available BEAD Workforce Dollars to Create Career Pathways for The Broadband Industry

Wisconsin can leverage BEAD workforce dollars effectively to create sustainable career pathways for individuals seeking opportunities in the broadband and telecom sector. WRTP | BIG STEP is prepared to work with the WSTA and its members to lead this strategic effort that involves collaboration between government agencies, educational institutions, industry stakeholders, and community organizations.



NEXT STEPS

Wisconsin's workforce development ecosystem is positioned well for an organization like WRTP | BIG STEP to lead a collaborative campaign involving government agencies, educational institutions, employers, and community organizations to address Wisconsin's broadband workforce needs. WRTP | BIG STEP has the experience and relationships to be able to focus on apprenticeships, training programs, and industry partnerships that highlight the state's commitment to addressing workforce needs and promoting economic prosperity.



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