

Workforce Development Strategies by Minority Serving Institutions

August 20, 2024



Housekeeping

Questions

- Type questions in the Q&A box on the right-hand side of the screen.

Presentation

- The presentation and recording of the webinar will be available on the BroadbandUSA website under Events/Past Events (<https://broadbandusa.ntia.doc.gov/events/past-events>)

Agenda

Office of Minority Broadband Initiatives Overview

- Jon Gant, Director, Ph.D., Office of Minority Broadband Initiatives, NTIA
- Dominique Harrison, Ph.D., Deputy Director, Office of Minority Broadband Initiatives, NTIA

Rutgers, the State University of New Jersey, Newark + TeknoGRID

- MJ Jenkins, CEO and Founder, TeknoGRID
- Della M. Walker, Jr., CEO & Principal Impact Consultant, The Work Effect

University of Washington, Tacoma + Black Brilliance Project

- Chris Jowaisas, Senior Research Scientist, University of Washington
- Dr. Shaun Glaze, Research Director and CEO, Black Brilliance Research

Q&A



Office of Minority Broadband Initiatives Overview

Office of Minority Broadband Initiatives

Office of Minority Broadband Initiatives

NTIA

Reports

Office of Minority Broadband Initiatives

Office of Minority Broadband
Initiatives FY2023 Annual Report

Office of Minority Broadband
Initiatives 2022 Report

Overview

NTIA launched the [Minority Broadband Initiatives](#) (MBI) in 2018 in partnership with Historically Black Colleges and Universities (HBCUs) to work on solving broadband deployment challenges in vulnerable communities. In August 2021, NTIA established the Office of Minority Broadband Initiatives to codify NTIA's work on the MBI. The OMBI, established within the [Office of Internet Connectivity and Growth](#), fulfills requirements of the Connecting Minority Communities provisions enacted into law as part of the Consolidated Appropriations Act, 2021.

The OMBI will continue NTIA's efforts to collaborate with federal agencies; state, local and tribal governments; Historically Black Colleges and Universities, Tribal Colleges and Universities and Minority-Serving Institutions; and any interested stakeholders to promote initiatives related to expanding connectivity and digital opportunities for anchor communities.

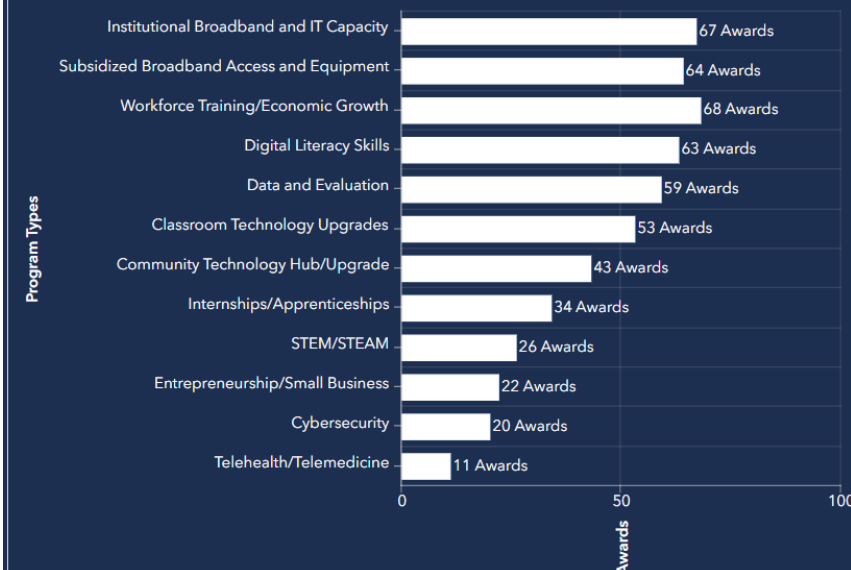
Total Awarded Grants

93

Total Amount Awarded

\$262,852,127.36

CMC Awardees by Program Types





**Rutgers, the State University of
New Jersey, Newark + TeknoGRID**



US DOL Registered Telecom Apprenticeship Program

Advancing Digital Equity, While Promoting Economic Equity

Enabled by Support from NTIA's CMC
Grant Awarded to Rutgers University -
Newark



ApprenticeshipUSA



Meet TeknoGRID

- Telecommunications company
- Marland ("MJ") Jenkins, CEO:
 - Telecom engineer at AT&T for close to a decade, starting in 2000
 - Then founded TeknoGRID in 2009
 - Passion for giving back to the community
- Deep expertise in MDU fiber-to-the-home; affordable high-speed Internet
- Certified Small and Minority-Owned Business (SBE/MBE)
- Employer sponsor of a DOL Registered Apprenticeship Technician Training Program since 2021
- Training for economically disadvantaged individuals
- Subrecipient of Rutgers-Newark University through the NTIA CMC grant





Types of Work We Do

Network Planning, Design, Construction, and Managed Services

- Fiber broadband and fixed wireless networks
- Comprehensive, secure, redundant open access networks
- Fiber to the home, GPON

Systems Integration and Optimization Using ArcGIS and Other Industry Tools

Construction Management

Affordable Internet Service Provider

US-Based Call Center /Dispatch Services, with Actual Human Beings

Types of Clients We Serve

Private Sector

- Commercial and Mixed-use Property Manager/Developers
- IT/Telecom Carriers

Public Sector

- State and Local Governments
- Authorities and Agencies
- Non-Profits and NGOs

A Few Examples of Our Clients :



TeknoGRID Is Well Equipped
for Project Delivery in Dense
Urban Environments

Upskilling 100 Trainees

Who We Serve

- Individuals from economically disinvested communities
- Justice-involved men and women
- Individuals who are in a pre-release facility

What We Deliver

- Broadband & Wireless Apprenticeships
- Foundational digital skills that open doors to employment



US Department of Labor Registered Broadband Technician Apprenticeship Program

- **Pre-Apprenticeship: 7 weeks**

- Hybrid online and classroom-based training
- Technical and soft skills
- Simulated hands-on training
- OSHA-30 certification

- **Full Apprenticeship: 11 – 12 months**

- ~2000 hours of on-the-job (OJT) training—a critical component for skill-building
- Mentorship and foremen oversight
- Upon successful completion they are fully industry certified with a CFOT certification



Key Skills Our Trainees Acquire In Our “Earn-while-you-Learn” Telecom Training Program:



- Professionalism
- Customer service / help desk support
- Safety (OSHA 10, 30, CPR, first aid...)
- MS Office
- Structured cabling (fiber/copper)
- OTDR testing
- Aerial installations
- Cisco cybersecurity
- Fiber and wireless system design
- Network engineering
- Systems integration
- Data center work

Proven Training/Employment Model for Economically Disadvantaged and Justice -Impacted Individuals

Individuals living in disinvested communities

- Free “earn-while-you-learn” training
- Wrap-around services through social service agencies
- Supportive stipends during pre-apprenticeship and then wages during full apprenticeships phase that focuses on-the-job training

Justice -Impacted Individuals

- Cultivate a culture of encouragement, support, and respect to build trainee confidence
- Identify work that’s allowable by the DOC for pre-release trainees
- Find jobs for graduates or employ them through our own company

We Meet Trainees Where They Are!





Our Apprenticeship Story

3-Minute Video That Captures the Essence of our Training Program:

<https://vimeo.com/822469873?share=copy>

Password: tekno123

Benefits



- **Changes Life Trajectories**

- Obtain enduring profession that confers economic stability and upward mobility, closing the racial wealth gap
- Emerge as skilled-up professionals who are positive contributors to the community

- **Advantageous for Communities and Governments**

- Reduction in crime, unemployment, and recidivism
- Increase in resident median income through upskilling to obtain high-quality, high-wage jobs

- **Expands Broadband Workforce**

- Fiber Broadband Association estimates that 205,000 fiber technicians will be needed to meet the demand created by BEAD funding
- Increases the number of highly skilled, certified fiber optics technicians to support Broadband infrastructure projects

A Beautiful Loop



This Broadband Workforce Development Model Is a Win-Win

Skilled Apprentices are Ready to Support Digital Equity Infrastructure
Projects, Their Families, and Their Communities



THANK YOU



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Della Walker, Jr



University of Washington, Tacoma + Black Brilliance Project

The background features a dark blue to purple gradient. A faint, stylized city skyline is visible in the upper half. The central text is enclosed in a rounded rectangle with a glowing pink border. Various geometric shapes, including triangles, circles, and a diamond, are scattered around the central text in white and pink outlines.

Connect Across Tacoma

PROGRAM

Black Brilliance Research + UW Tacoma
Local Connectivity Lab



[Click here to play if the video above doesn't play](#)



Workforce Development

- We train in technology, including cybersecurity, internet infrastructure, and information literacy
- Technical skills in research, fund development and more
- Paid fellowships for 15 students in each cohort
- Fellows are placed in community organizations where they do tasks like: grant writing, tech support, and research support. All fellows are trained in these tasks
- Orgs are starting to commit to post-fellowship careers




Key Activities of Connect Across Tacoma

- Primary goal of key activities is to grow the network of stewards who can build out and maintain existing community networks in Tacoma
- Three primary key activities:
 - Digital Steward training program
 - CAT will train 105 Digital Stewards in employable skills.
 - Device Access
 - CAT will deliver 500 smart devices to low-income UWT students and Tacoma residents within a 15-mile radius of UWT.
 - Service Access
 - CAT will subsidize 500 low-income UW Tacoma students and Tacoma residents in qualifying Census tracts to purchase broadband Internet service.



Overview of Digital Stewards Program




- Comprehensive training equips community members with the skills to build and maintain community-owned networks.
 - Two quarter curriculum, meeting for 6 hours per week
 - Participants receive \$1600 stipends
 - 3 cohorts of 35 students/cohort
 - Paid internships for 15 students in each cohort after the training is complete
- 



Digital Steward Curriculum Highlights



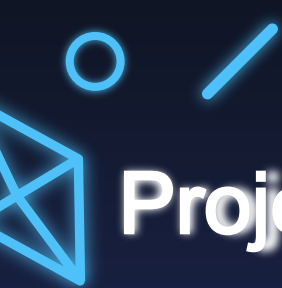
- Networking and equipment skills
 - Community outreach and engagement
 - Network design and installation
 - Network maintenance and management
 - Funding and sustainability
- 

Overview of Device Access

- Devices will be distributed to UWT students according to financial need and to Tacoma citizens in CMC-qualifying census tracts, with further prioritization of patrons in tracts according to the Pierce County Equity Index developed by the City of Tacoma.
- Digital Stewards will assist with device distribution
- Total of 500 devices to be distributed with 250 devices scheduled for distribution beginning in Q2 2024
- Additional distributions on quarterly basis throughout project period

Overview of Internet Service Subsidy

- Subsidies will be distributed following the same process as for device distribution
- Subsidy expected to average \$65/mo and will be provided to 500 households of UWT students or Tacoma residents
- 250 subsidies expected to be provided beginning in Q2 2024 and then on a quarterly basis for remainder of project period



Projected Outcomes of Connect Across Tacoma

- It is the goal of the training program to develop students into Digital Stewards, equipped with the skills, knowledge, and certifications that will lead to high-wage jobs and strong communities. Trainees' skills will be measured through hands-on and online learning, as part of the class design. Many of the intended results coincide with those of the distribution program, including building digital literacy in the community.
- It is the aim of the technology distribution and service enrollment programs to increase the number of in-need students and Tacoma citizens who have adequate access to digital devices and connection to high-speed Internet. From this connectivity, UWT and BBR hope to build digital skills that result in students and patrons being able to participate robustly in online activities, including remote learning and civic participation.



Who We Are

- Black Brilliance Research (BBR)
 - The lead organization on this project, which is unusual because typically the institution of higher education is the one leading the work.
 - Black-led and queer-led research collaborative dedicated to creating community-led solutions that create new infrastructure, policy, and practices
 - Has led a Digital Equity Action Research fellowship alongside Dr. Colin Rhinesmith, Benton Institute for Broadband & Society
 - Holds three National Science Foundation awards related to digital equity
- For this project, BBR is providing leadership on the project direction, operationalizations, and implementation
- More information about BBR can be found at www.BlackBrillianceResearch.com

Who We Are

- Local Connectivity Lab (LCL)
 - LCL is a local 501(c)(3) nonprofit working on digital equity for underserved areas in the Puget Sound and internationally. Our mission is to democratize the knowledge, skills, and resources to enable community-owned Internet access networks.
- For this project, LCL is providing educational and curricular resources and materials, instructional and volunteer capacity, and expert advising on how to mobilize and operate community internet infrastructure.
- More information about LCL can be found at <https://seattlecommunitynetwork.org/>.





Who We Are

- University of Washington - Tacoma (UWT)
 - 4-year, federally designated Minority Serving Institution with an enrollment of 4,790 (undergraduate + graduate)
 - 51% of undergraduates are first to college or first to degree
 - 61% students of color / 32% underserved students of color
 - Computer science, biomedical sciences, and information technology are most popular majors
- For this project, UWT is providing administrative, facilities, and technology support to the project
- More information about UWT - [UW-Tacoma Fact-Card-Aut2023 web 0.pdf](#)

THANKS !!

Do you have any questions?

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Q & A