Ohio's Broadband & 5G Sector Partnership

Workforce Asset Map Dashboard

July 30, 2025

Julie Maurer, PhD
Mark Oleson
Katie Jennings

THE OHIO STATE UNIVERSITY

BroadbandOhio

WIA — Wireless Infrastructure Association

OHIO EDUCATION RESEARCH CENTER

Ohio — Governor's Office of Workforce Transformation

Program

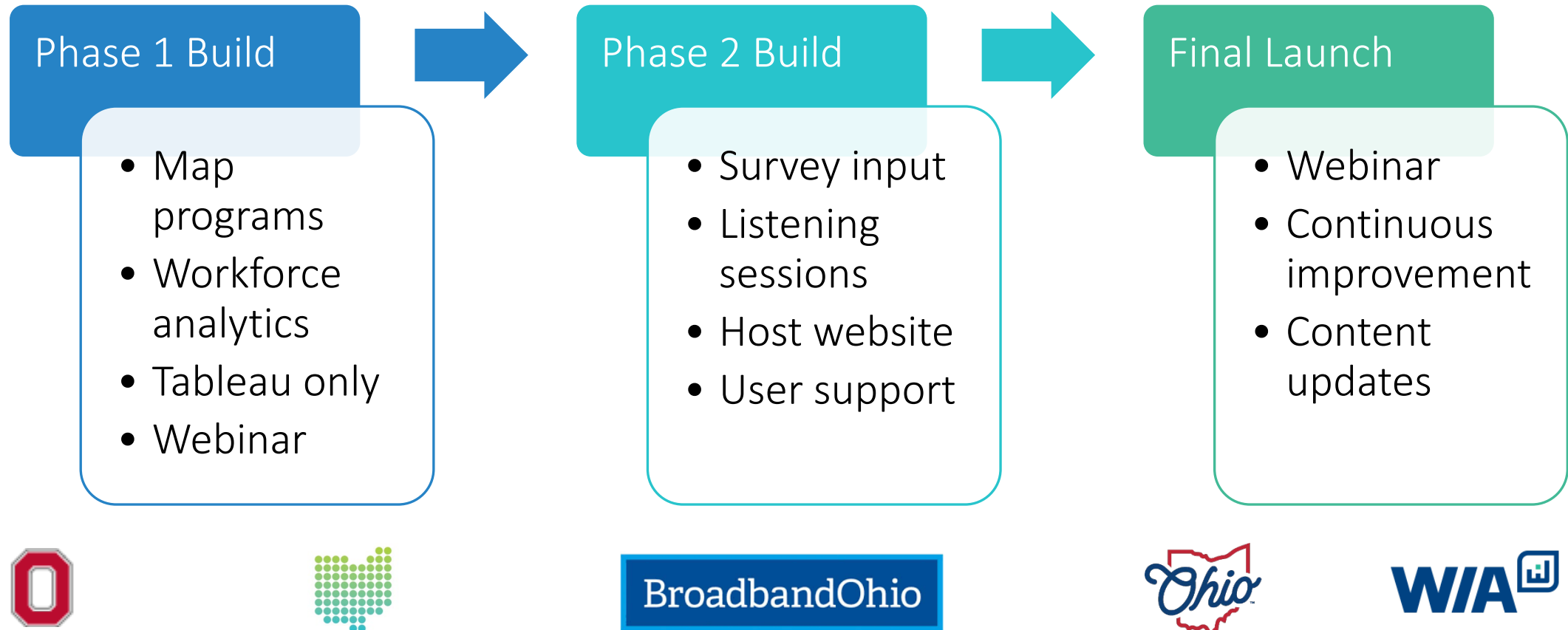|	
Welcome	• Background • Process Overview
Dashboard Introduction	• Research Questions • Phase 2 Developments
Demonstration	• Contents & Data Details • Customization
Closing Thoughts	• Contact Information • Q&A Discussion

Mapping Workforce Assets

- Purpose:
  - Easy access to Workforce Development Resources at the Region Level

- Audience:
  - Workforce Development Professionals
  - Employers
  - Node Partners

- Goal:
  - Provide comprehensive, up-to-date information that's easy to access for all users

Development Process

Phase 1 Build

- Map programs
- Workforce analytics
- Tableau only
- Webinar

Phase 2 Build

- Survey input
- Listening sessions
- Host website
- User support

Final Launch

- Webinar
- Continuous improvement
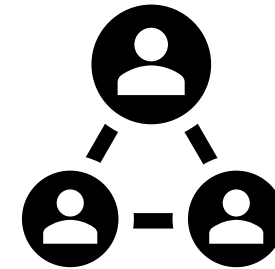- Content updates

Research Questions

WHERE ARE BROADBAND & 5G TRAINING PROGRAMS IN OHIO?

WHAT ARE WORKFORCE TRENDS IN THE BROADBAND & 5G SECTOR?

WHAT OHIO REGIONAL RESOURCES ARE AVAILABLE NEAR ME?

BroadbandOhio

Ohio

WIA

Recent Changes

Expanded **current dashboard content based on the resources in each Node region**

Engaged **with key stakeholders to gather data and input**

Refreshed **data, visualizations, and hyperlinks**

Enhanced dashboard **capacity and user interface**
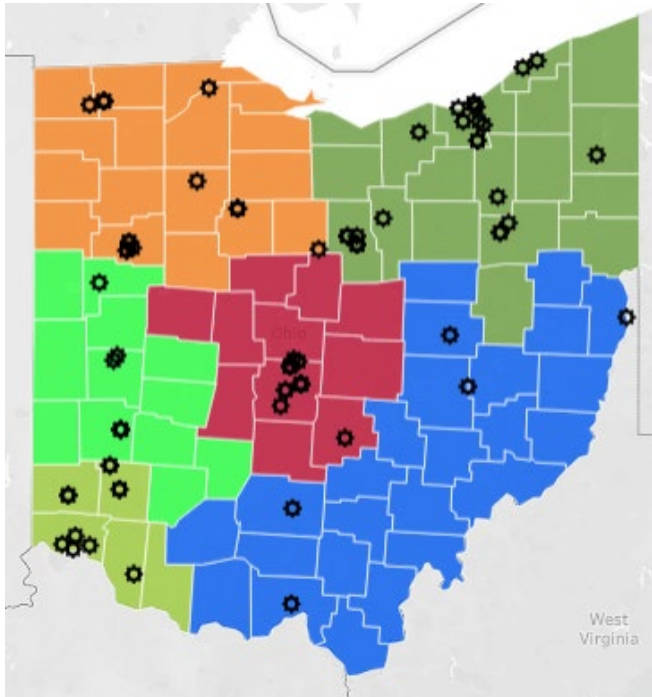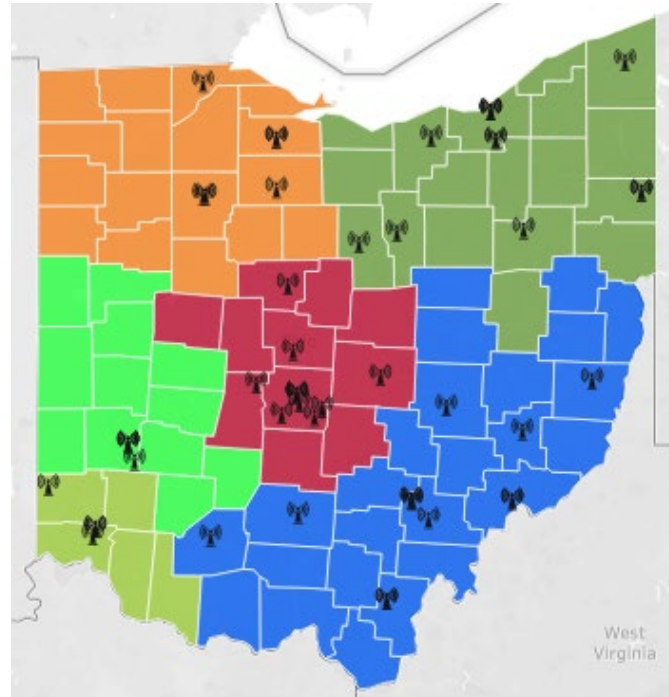

BroadbandOhio

Ohio

WIA

Visualizing Connectivity
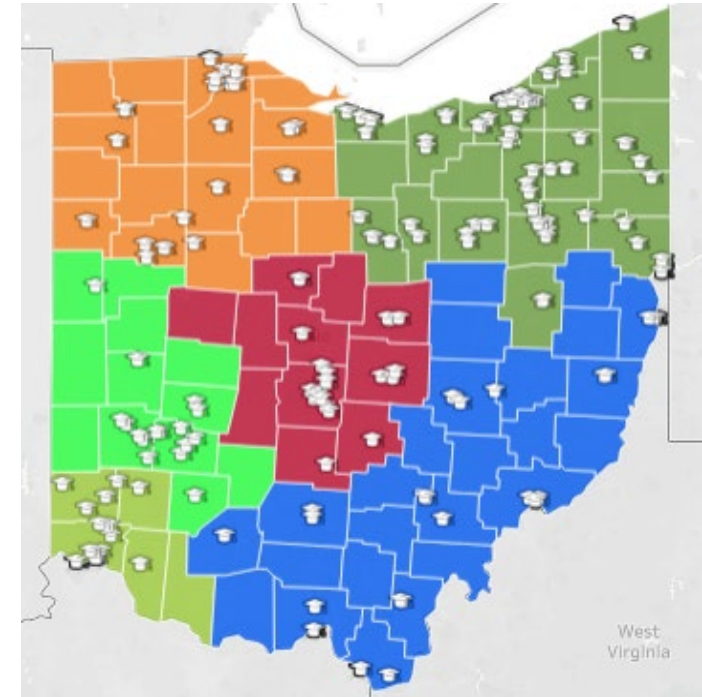
BB & 5G EDUCATION & TRAINING PROGRAMS

Source: Administrative Data from Broadband & 5G Sector Partnership and Smartsheet

APPRENTICESHIPS

Source: Ohio Department of Job and Family Services with ApprenticeOhio

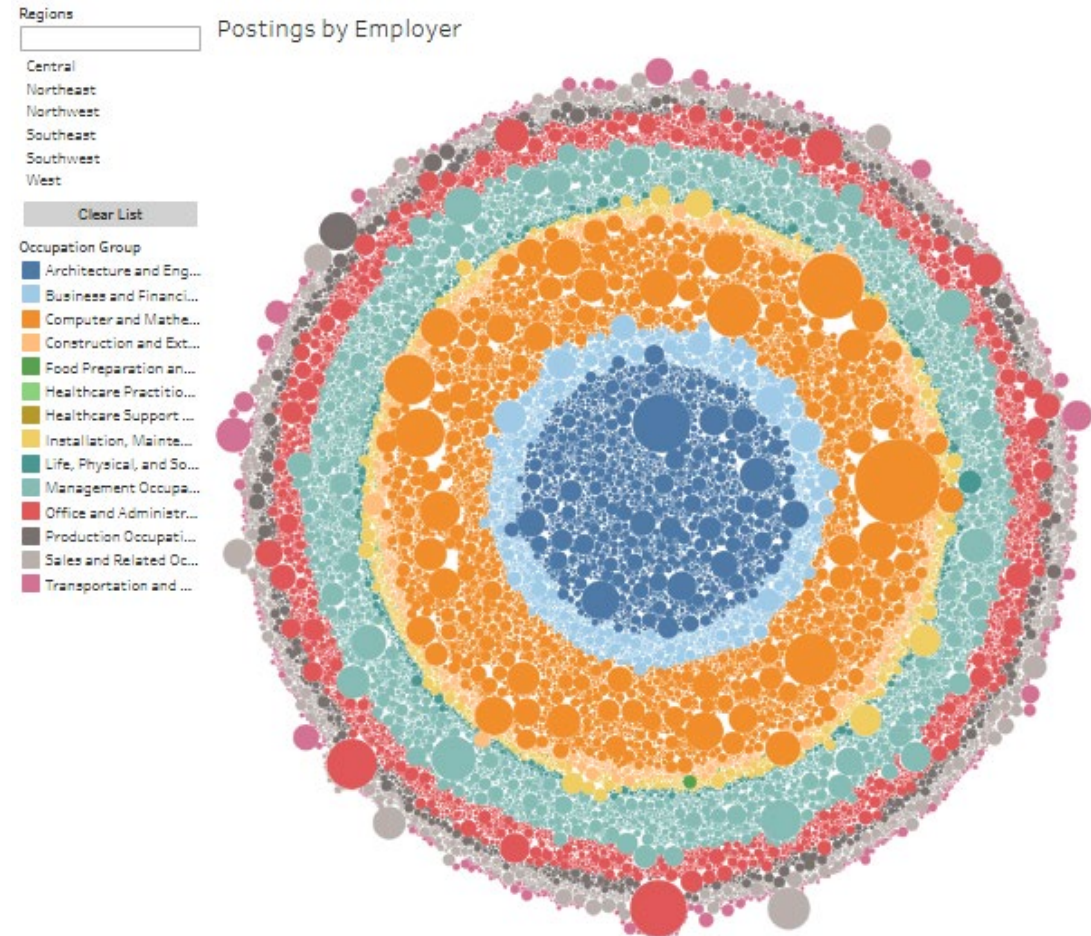### ALL OHIO INSTITUTIONS WITH BB & 5G AFFILIATED PROGRAMS

Source: Integrated Post Secondary Education Data System (IPEDS) and curated SOC & CIP codes

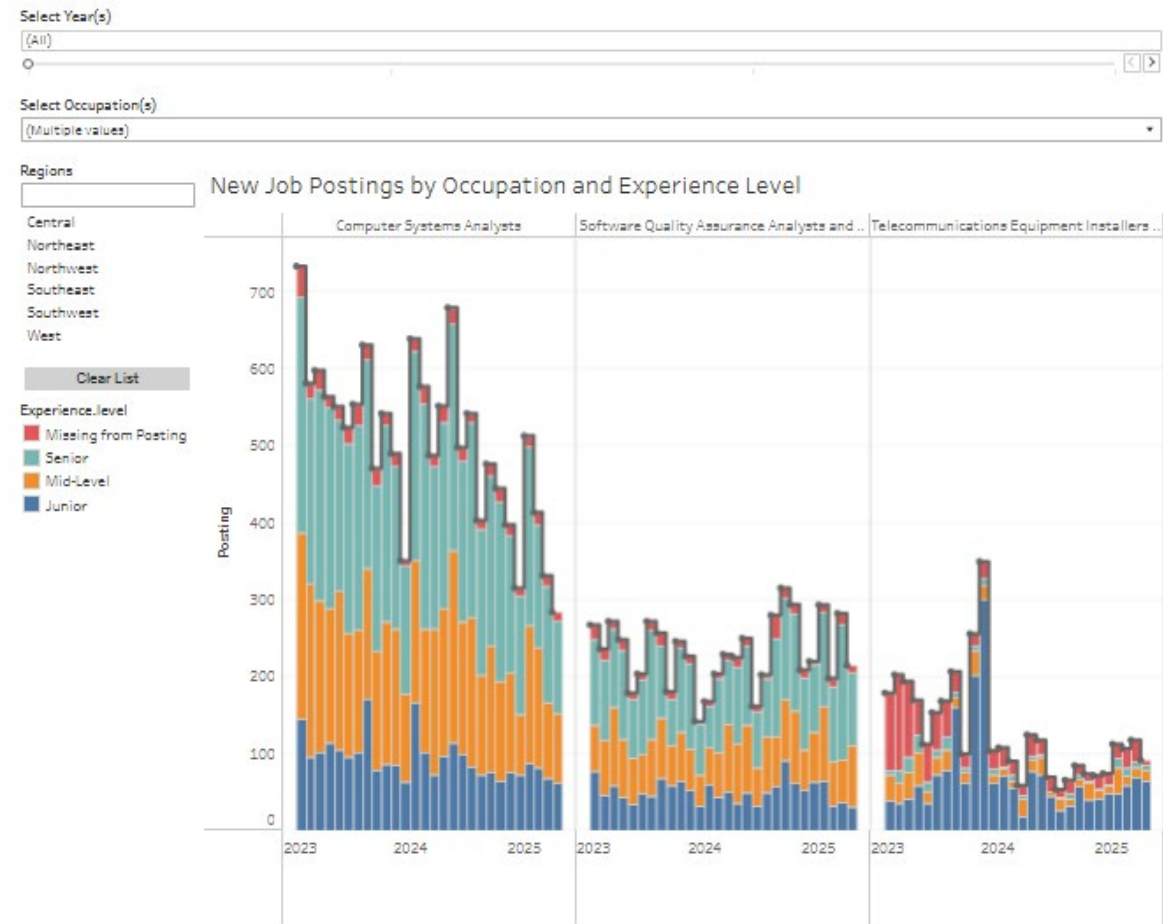# Visualizing Connectivity

Job Postings By Employer

- Displays unique job postings by employer for 2024

- Bubble size = posting count
  - Color = 2-digit occupation group
  - Region filter available
  - Tabular data for employer and JobsOhio region included below the visualization
  - *Source: Talent Neuron*

Visualizing Connectivity

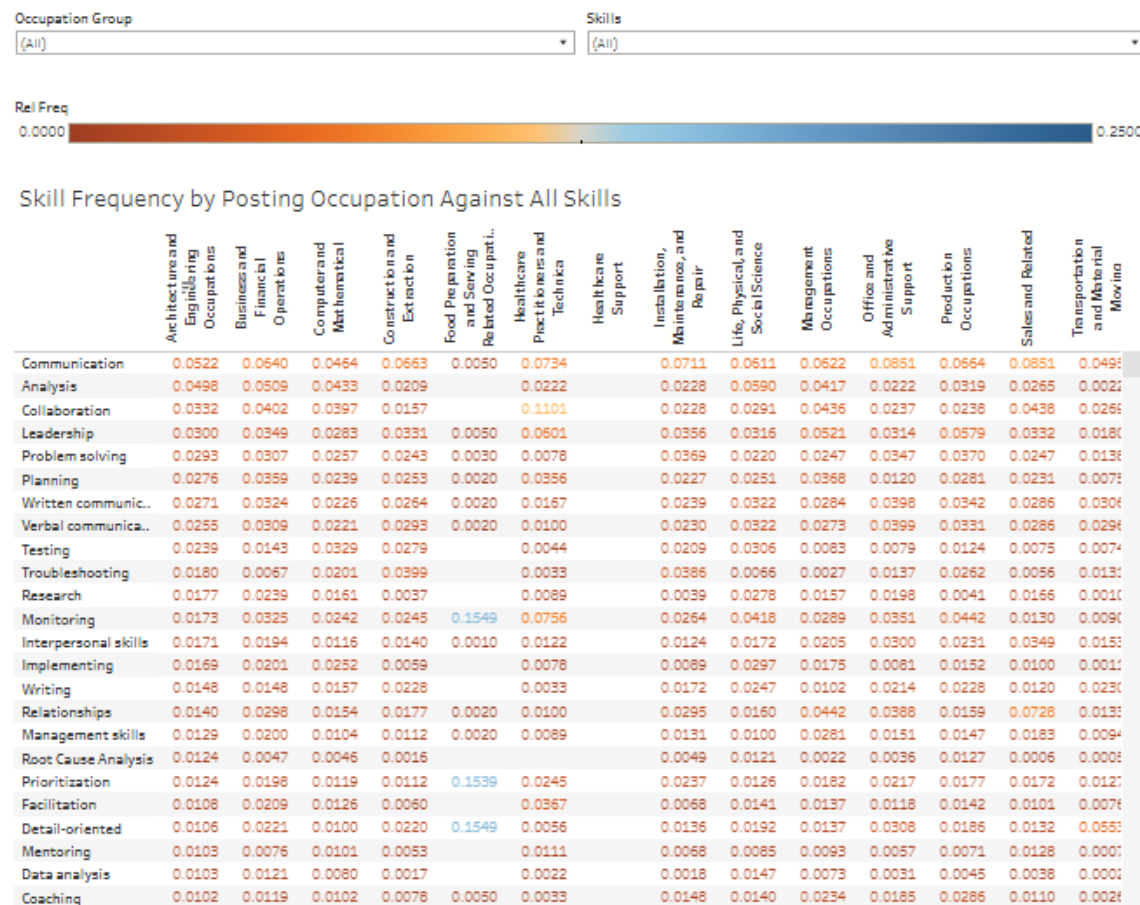Longitudinal Job Metrics Trends

- Monthly unique job postings by "first seen" date
  - Separated by required experience level
  - Organized by occupation, experience level, and year
  - Talent Neuron updated its education requirement classification
  - *Source: Talent Neuron*

Visualizing Connectivity

Skills Analysis
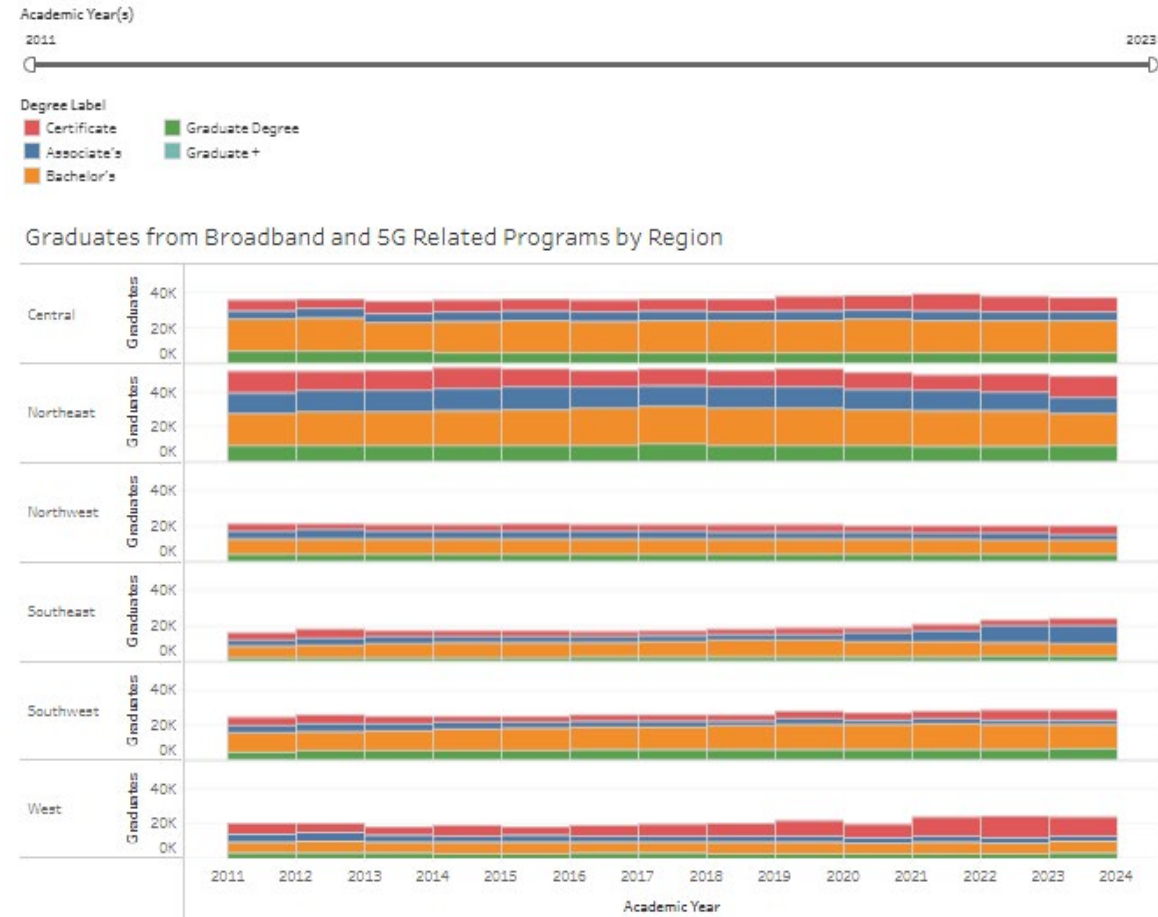
- Skill occurrence shown as a ratio of total job postings per occupation
  - Deduplicated across postings
  - Organized by 2-digit occupation category
  - *Source: Talent Neuron*

Occupation Group
(All)

Skills
(All)

Rel Freq
0.0000 — 0.2500

Skill Frequency by Posting Occupation Against All Skills

	Architecture and Engineering Occupations	Business and Financial Operations	Computer and Mathematical	Construction and Extraction	Food Preparation and Serving Related Occupati..	Healthcare Practitioners and Technical	Healthcare Support	Installation, Maintenance, and Repair	Life, Physical, and Social Science	Management Occupations	Office and Administrative Support	Production Occupations	Sales and Related	Transportation and Material Moving
Communication	0.0522	0.0640	0.0464	0.0663	0.0050	0.0734		0.0711	0.0611	0.0622	0.0851	0.0654	0.0851	0.0498
Analysis	0.0498	0.0509	0.0433	0.0209		0.0222		0.0228	0.0590	0.0417	0.0222	0.0319	0.0265	0.0022
Collaboration	0.0332	0.0402	0.0397	0.0157		0.1101		0.0228	0.0291	0.0436	0.0237	0.0238	0.0436	0.0269
Leadership	0.0300	0.0349	0.0283	0.0331	0.0050	0.0601		0.0356	0.0316	0.0521	0.0314	0.0579	0.0332	0.0180
Problem solving	0.0293	0.0307	0.0257	0.0243	0.0030	0.0078		0.0369	0.0220	0.0247	0.0347	0.0370	0.0247	0.0138
Planning	0.0276	0.0359	0.0239	0.0253	0.0020	0.0356		0.0227	0.0251	0.0368	0.0120	0.0281	0.0231	0.0075
Written communic..	0.0271	0.0324	0.0226	0.0264	0.0020	0.0167		0.0239	0.0322	0.0284	0.0398	0.0342	0.0286	0.0306
Verbal communica..	0.0255	0.0309	0.0221	0.0293	0.0020	0.0100		0.0230	0.0322	0.0273	0.0399	0.0331	0.0286	0.0296
Testing	0.0239	0.0143	0.0329	0.0279		0.0044		0.0209	0.0306	0.0083	0.0079	0.0124	0.0075	0.0074
Troubleshooting	0.0180	0.0067	0.0201	0.0399		0.0033		0.0386	0.0066	0.0027	0.0137	0.0262	0.0056	0.0131
Research	0.0177	0.0239	0.0161	0.0037		0.0089		0.0039	0.0278	0.0157	0.0198	0.0041	0.0166	0.0010
Monitoring	0.0173	0.0325	0.0242	0.0245	0.1549	0.0756		0.0264	0.0418	0.0289	0.0351	0.0442	0.0130	0.0090
Interpersonal skills	0.0171	0.0194	0.0116	0.0140	0.0010	0.0122		0.0124	0.0172	0.0205	0.0300	0.0231	0.0349	0.0153
Implementing	0.0169	0.0201	0.0252	0.0059		0.0078		0.0089	0.0297	0.0175	0.0081	0.0152	0.0100	0.0011
Writing	0.0148	0.0148	0.0157	0.0228		0.0033		0.0172	0.0247	0.0102	0.0214	0.0228	0.0120	0.0230
Relationships	0.0140	0.0298	0.0154	0.0177	0.0020	0.0100		0.0295	0.0160	0.0442	0.0388	0.0159	0.0728	0.0133
Management skills	0.0129	0.0200	0.0104	0.0112	0.0020	0.0089		0.0131	0.0100	0.0281	0.0151	0.0147	0.0183	0.0094
Root Cause Analysis	0.0124	0.0047	0.0046	0.0016				0.0049	0.0121	0.0022	0.0036	0.0127	0.0006	0.0008
Prioritization	0.0124	0.0198	0.0119	0.0112	0.1539	0.0245		0.0237	0.0126	0.0182	0.0217	0.0177	0.0172	0.0127
Facilitation	0.0108	0.0209	0.0126	0.0060		0.0367		0.0068	0.0141	0.0137	0.0118	0.0142	0.0101	0.0076
Detail-oriented	0.0106	0.0221	0.0100	0.0220	0.1549	0.0056		0.0136	0.0192	0.0137	0.0308	0.0186	0.0132	0.0553
Mentoring	0.0103	0.0076	0.0101	0.0053		0.0111		0.0068	0.0085	0.0093	0.0057	0.0071	0.0128	0.0007
Data analysis	0.0103	0.0121	0.0080	0.0017		0.0022		0.0018	0.0147	0.0073	0.0031	0.0045	0.0038	0.0002
Coaching	0.0102	0.0119	0.0102	0.0078	0.0050	0.0033		0.0148	0.0140	0.0234	0.0185	0.0286	0.0110	0.0026

Visualizing Connectivity
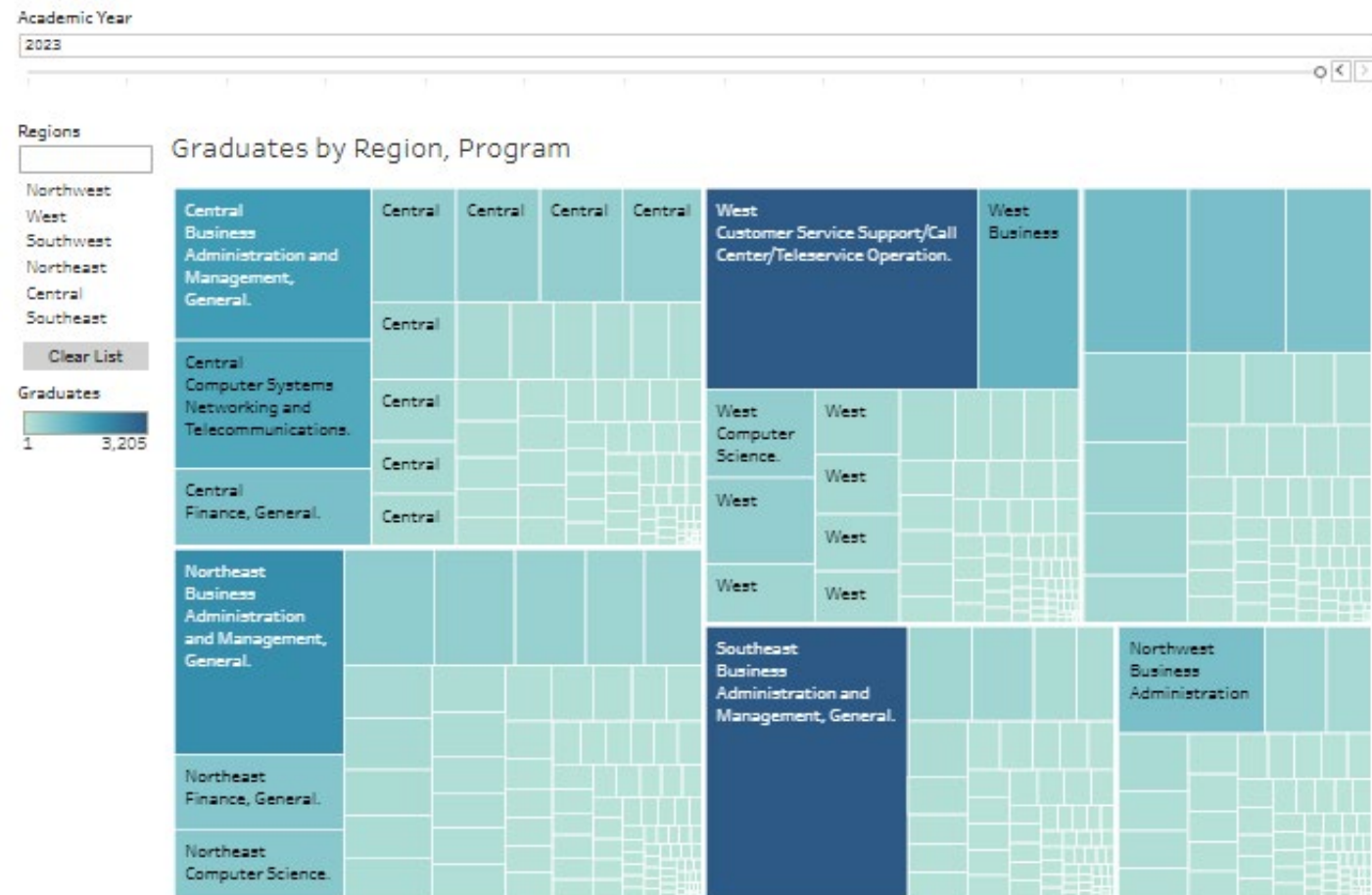
Longitudinal Graduate Trend

- Graduate counts from BB/5G-related CIP programs since 2011
  - Colored by degree level
  - Faceted by region and statewide view
  - *Source: IPEDS*

Visualizing Connectivity

Graduate Trends by Region and Academic Year

- Graduate Trends by Region and Academic Year
  - Graduate counts by region and CIP
  - Rectangle size and color gradient = number of graduates
  - *Source: IPEDS*

Data Details

Development Process

- Early contributions to Asset Mapping have been made possible with state-sponsored work since **2023**
- Additional information added by **stakeholder engagement** with the BB & 5G Sector Partnership

IPEDS and Apprenticeships

- Data Analytics and Evaluation Working Group with SOC & CIP List development
- Ohio Department of Job and Family Services with ApprenticeOhio

Talent Neuron Job Postings Data

- Access provided by Ohio Department of Job and Family Services
- Each job posting:
  - Tagged by Talent Neuron with an average of **14 skills (subject to change)**
  - **Deduplicated** by **OERC** for postings without a discernable Ohio county, and repeat-postings are removed, given Talent Neuron tagging

Programmatic and Administrative Information

- Provided by Smartsheet tracking from Ohio Broadband & 5G Nodes
- Longitudes and latitudes pulled from US Census GeoCoder

BroadbandOhio

Ohio

WIA

Region Profile Customization

OERC Points of Contact

Please feel free to reach out with questions!

Role/Name	Contact
Dashboard Content	bb5g@chrr.osu.edu
Technical Assistance	bb5gtechnicalsupport@chrr.osu.edu
Julie Maurer	Maurer.99@osu.edu
Mark Oleson	Oleson.10@osu.edu
Katie Jennings	Jennings.494@osu.edu

OHIO EDUCATION RESEARCH CENTER