

One size does not fit all

Customizing industry sector pipeline strategies



Dave Seeley



Kwame A. Yeboah



Christa O. Franzi

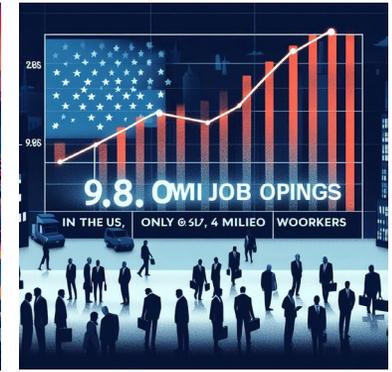


economic
development
and workforce
development
are becoming
one in the
same



We have a **wicked** workforce problem, and therefore, a **wicked** economic development problem

- In the US, there are currently 9.6 million job openings but only 6.4 million unemployed workers.
- This means there are 3.2 million more positions available than people to fill them.
- Worker shortage could reach 4 million by 2030



AI is not going to save us....
as you can see by these images.



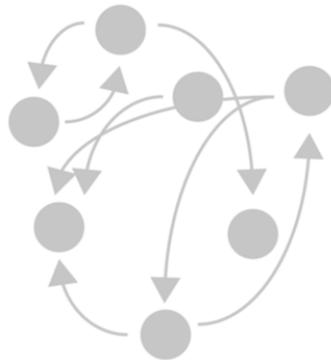
Abysmal demographics are not the only problem



- Skills Mismatch
- Underemployment
- Wage Stagnation
- Discrimination and Inequality
- Geographic Mismatches
- Automation and Technological Disruption
- Lack of Training and Education
- Employee Well-being
- Globalization
- Government Policies
- Pandemics and Disasters
- Demographic Changes

Wicked problems require systems thinking and adaptive planning

Systems thinking recognizes that problems are often interconnected and that interventions in one area can have consequences in others.



Adaptive planning emphasizes ongoing learning, adjustment, and responsiveness to changing conditions.



Today's Goal:

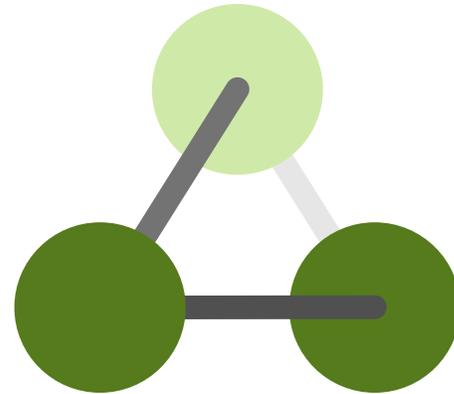
Provide examples of iterative actions taken toward customizing industry sector pipeline programs



Customization is key.

1. System Mapping
2. Occupation Gap Analysis
3. Quantify Disconnected Populations

System Mapping



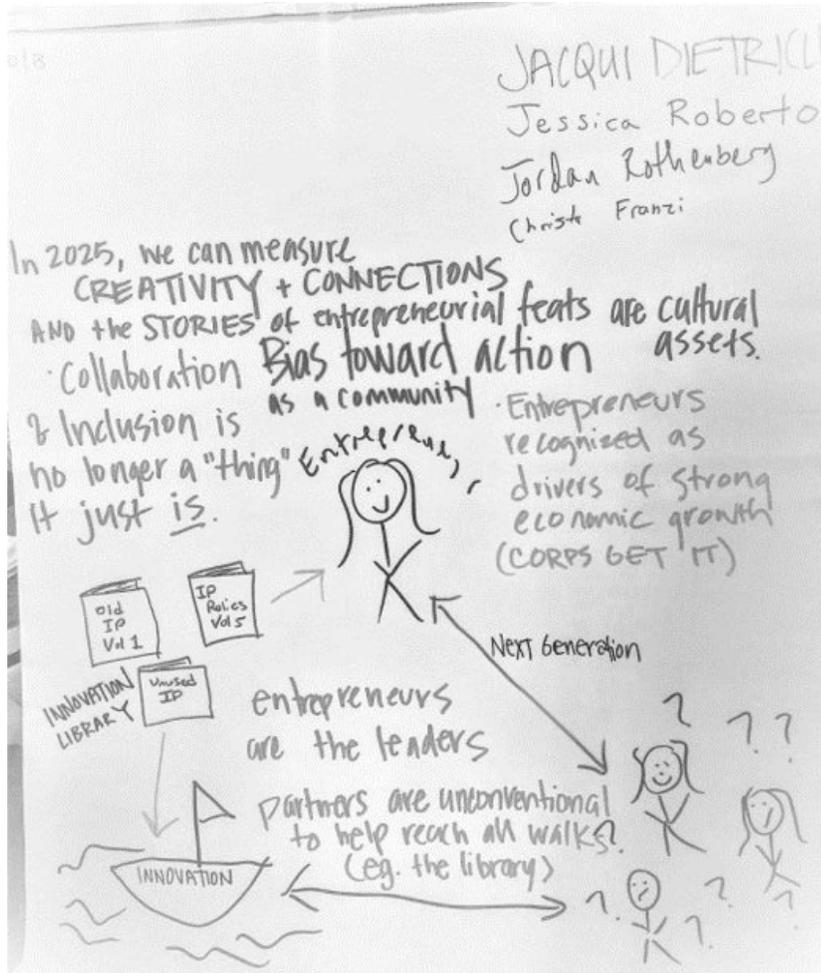
Why map a system?

- Understand complex systems
- Develop strategies for change
- Improve communication among those involved
- Zoom out and visualize the bigger picture
- Identify where you want to zoom in
- Identify key elements or nodes in the system
- Describe key relationships
- Identify where change could occur
- Direct further scanning for weak signals as needed



Two-Approaches to System Mapping

Qualitative



Quantitative

Organization Type	Programs	Program Type	Program Subtype (from Pro
Nonprofit/service-oriented	Bridges 2 Success	Career awareness/...	Career counseling / mentoring
Government	ACCESS-VR FoodLi	Job placement	Career and technical education
Nonprofit/service-oriented	Adult Project SEAR	Career experience/...	Career counseling / mentoring
Nonprofit/service-oriented	Emergency & Famil	Career awareness/...	Employability / soft skills / mo
Government	Auto Services Autc	Classroom instructi...	Career and technical education
K-12 education	Agriculture Digital	Classroom instructi...	Career and technical education
Adult education and literacy	Commercial Driver	Classroom instructi...	Certificate Certificate Cer
Trade Union	Bricklayer/Tile Sette	Career experience/...	Registered apprenticeships
K-12 education			
K-12 education			
Postsecondary education	Accounting Busine	Classroom instructi...	Associate of Applied Science c
Nonprofit/service-oriented	Rochester Vocation	Career awareness/...	Career counseling / mentoring
Trade Union	Carpentry Apprenti	Career experience/...	Registered apprenticeships
Nonprofit/service-oriented	YouthBuild Employ	Career experience/...	On-the-job training ESL/lite
Nonprofit/service-oriented	Disability Employm	Career awareness/...	Career matching / interest or s
Nonprofit/service-oriented	Center for Employn	Career awareness/...	Direct job placement Job se
Nonprofit/service-oriented	LEARN2EARN: Worl	Adult education an...	Employability / soft skills / mo
Government	Adult Education	Adult education an...	ESL/literacy
Industry sector partnership	Child Development	Classroom instructi...	Certificate Certification (ind
K-12 education			
Government	Roc the Block R-Cc	Career awareness/...	Career fairs Career fairs
Postsecondary education			
Nonprofit/service-oriented	Community Health	Classroom instructi...	Internships / cooperative educ

Quantitative Approach

- Focus on data management
- Engage partners and stakeholders
- Understand the emerging trends in workforce development systems
- Identify the unique assets, challenges, and culture
- Who are we building this for?
(The job seeker or workforce system partners?)

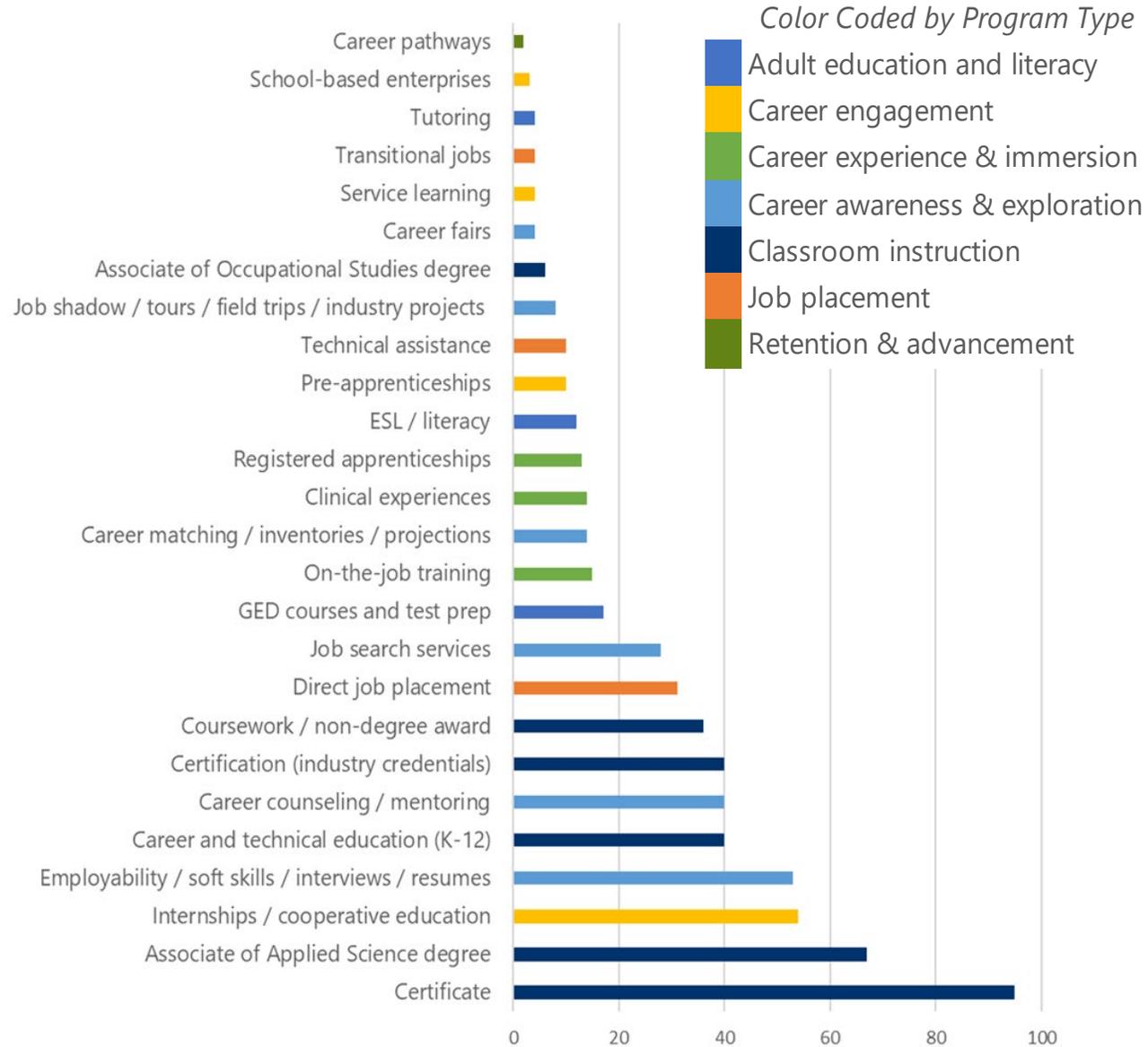
Data Design

- Determining what needs to be collected is a crucial early step in the process
- Input from key stakeholders and end-users
- Balance between detail and utility



Workforce Programs in Monroe County by Subtype

June 2023



Programs may fall into multiple categories

Data Platform

- Fit with current organizational assets
- System maintenance
- Frequency of updates
- Internal vs. external
- Paid vs. unpaid
- Cloud based vs. local
- Can it be modified to something user-friendly?





Organizations Programs Contacts + Add or import

Views Grid view Hide fields Filter Group Sort Color Share and sync

Find a view

Grid view

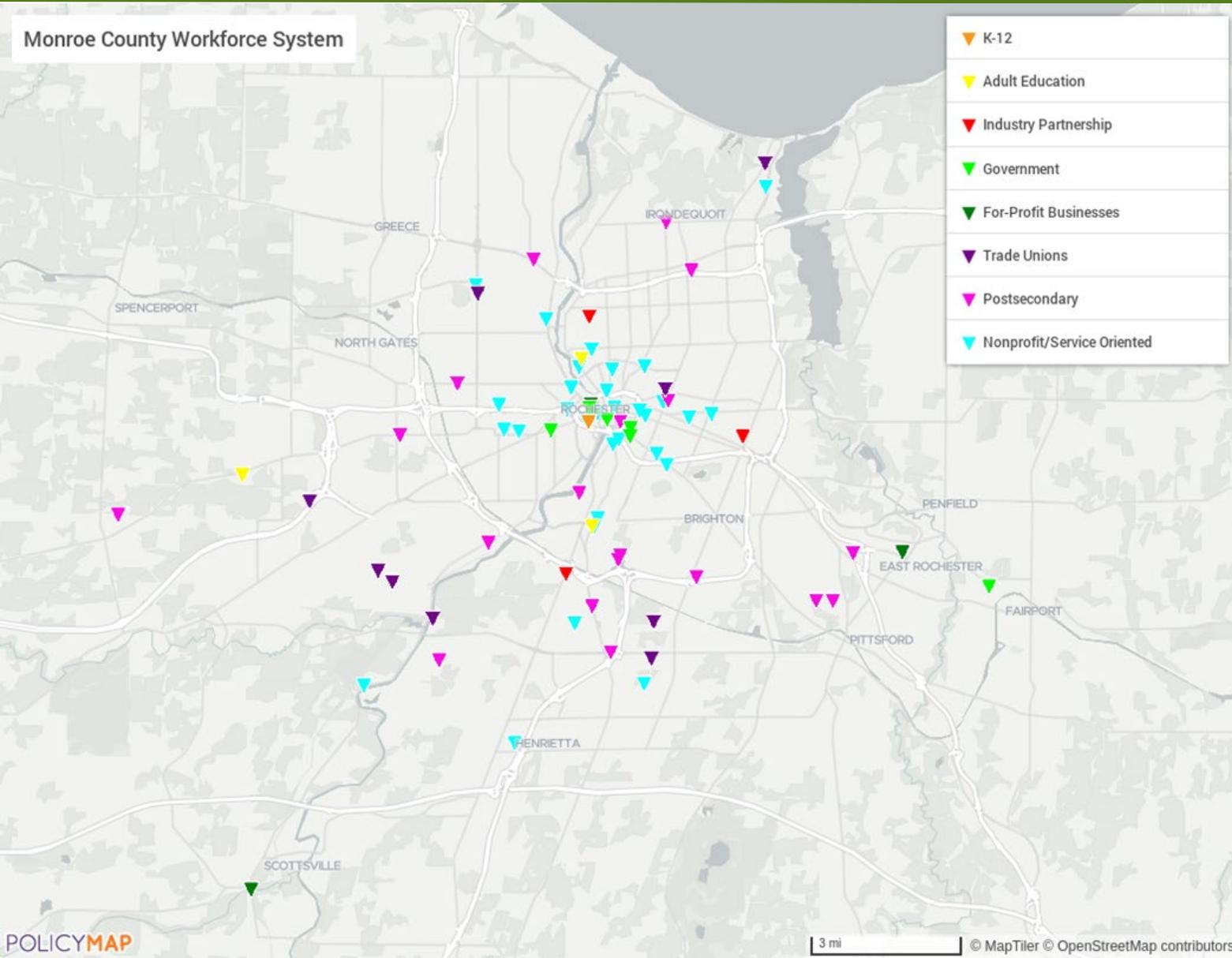
Create...

- Grid +
- Form +
- Calendar +
- Gallery +
- Kanban +
- Tim... Team +
- List +
- G... Team +
- Section Team +

	A Organization Name	Notes	Organization Type	Programs	Program Type	Program Subtype (from Programs)	Wraparound Services	Website	Phone	Address	City		
1	Action for a Better Community		Nonprofit/service-oriented	Bridges 2 Success	Career awareness/...	Career counseling / mentoring	Employa	Healthcare/dental	Mentor	https://www.ab...	(585) 325-5...	400 West ... Rochester	
2	Adult Career and Continuing Education S...	Career guidance, ...	Government	ACCESS-VR FoodLi	Job placement	Career and technical education (K-12)	Equipment	Case manager		https://www.acc...	(585) 238-2...	109 South ... Rochester	
3	ARC of Monroe		Nonprofit/service-oriented	Adult Project SEAR	Career experience/...	Career counseling / mentoring	Internshi	Adaptive assistance for ...		https://arcmonr...	(585) 271-0...	2060 Brigh... Rochester	
4	Baden Street Settlement	Not much detail o...	Nonprofit/service-oriented	Emergency & Famil	Career awareness/...	Employability / soft skills / mock interv...	Healthcare/dental			https://badenstr...	(585) 325-4...	152 Baden... Rochester	
5	BOCES 1 - Eastern Monroe Career Center		Government	Auto Services Aut	Classroom instructi...	Career and technical education (K-12)				www.monroe.ed...	(585) 387-3...	41 O'Conn... Fairport	
6	BOCES 2 (WEMOCO) - CTE	CTE programs ser...	K-12 education	Agriculture Digital	Classroom instructi...	Career and technical education (K-12)				https://www.mo...	(585) 352-2...	3589 Big R... Spencer...	
7	Center for Workforce Development (Adult...	Adult CTE Progra...	Adult education and literacy	Commercial Driver	Classroom instructi...	Certificate	Certificate	Certificate		www.monroe2b...	(585) 349-9...	3555 Buffa... Rochester	
8	Bricklayers and Allied Craftworkers Local 3...		Trade Union	Bricklayer/Tile Sette	Career experience/...	Registered apprenticeships				https://bac3ny.c...	(585) 641-0...	33 Sagina... Rochester	
9	Brighton School District	TO BE REMOVED ...	K-12 education							https://www.bcs...	(585) 242-5...	2035 Mon... Rochester	
10	Brockport School District	TO BE REMOVED ...	K-12 education							https://www.bcs...	(585) 637-5...	40 Allen St... Brockport	
11	Bryant and Stratton College		Postsecondary education	Accounting Busine	Classroom instructi...	Associate of Applied Science degree	Ass	Stipends / financial assis...		https://www.bry...	(866) 948-0...	1125 Jeffe... Rochester	
12	Career Systems Development Corps	CSD operates Job...	Nonprofit/service-oriented	Rochester Vocation	Career awareness/...	Career counseling / mentoring	Direct jo	Case management	Stipen	www.careersyst...	(585) 544-4...	96 College... Rochester	
13	Carpenters and Joiners of America Local 2...		Trade Union	Carpentry Apprenti	Career experience/...	Registered apprenticeships				https://carpente...	(585) 328-6...	21 Jet Vie... Rochester	
14	Catholic Charities Family and Community ...		Nonprofit/service-oriented	YouthBuild Employ	Career experience/...	On-the-job training	ESL/literacy	Pre-a	Case management	Refuge	www.fcscharitie...	(585) 339-9...	1099 Jay S... Rochester
15	Center for Disability Rights		Nonprofit/service-oriented	Disability Employm	Career awareness/...	Career matching / interest or skills inve...		Adaptive assistance for ...		https://cdmns.o...	(585) 546-7...	497 State ... Rochester	
16	Center for Employment Opportunities	Re-entry populati...	Nonprofit/service-oriented	Center for Employn	Career awareness/...	Direct job placement	Job search services	Mental health counseling		https://ceowork...	(585) 957-9...	16 East M... Rochester	
17	Center for Youth	Serve at risk, scho...	Nonprofit/service-oriented	LEARN2EARN: Worl	Adult education an...	Employability / soft skills / mock interv...		Mentorship		www.centerfory...	(585) 473-2...	905 Monr... Rochester	
18	Central Library of Rochester and Monroe ...		Government	Adult Education	Adult education an...	ESL/literacy		Housing assistance	Food	https://roccityli...	(585) 428-7...	115 South ... Rochester	
19	Child Care Council		Industry sector partnership	Child Development	Classroom instructi...	Certificate	Certification (industry creden	Childcare		https://childcar...	(585) 654-4...	595 Blosso... Rochester	
20	Churchville-Chili School District	TO BE REMOVED ...	K-12 education							http://www.cccs...	(585) 293-1...	139 Fairba... Churchv...	
21	City of Rochester	Besides running S...	Government	Roc the Block R-Cc	Career awareness/...	Career fairs	Career fairs	Internships /		https://www.city...	(585) 428-5...	30 Church ... Rochester	
22	Colgate Rochester Crozer Divinity School	TO BE REMOVED ...	Postsecondary education							https://crcds.sit...	(585) 271-1...	320 North ... Rochester	
23	Community Health Worker Association of ...	The CHWAR CHW...	Nonprofit/service-oriented	Community Health	Classroom instructi...	Internships / cooperative education	Cer			https://www.ch...	(585) 957-0...	435 Libert... Rochester	

+ Add... 122 records

Applications



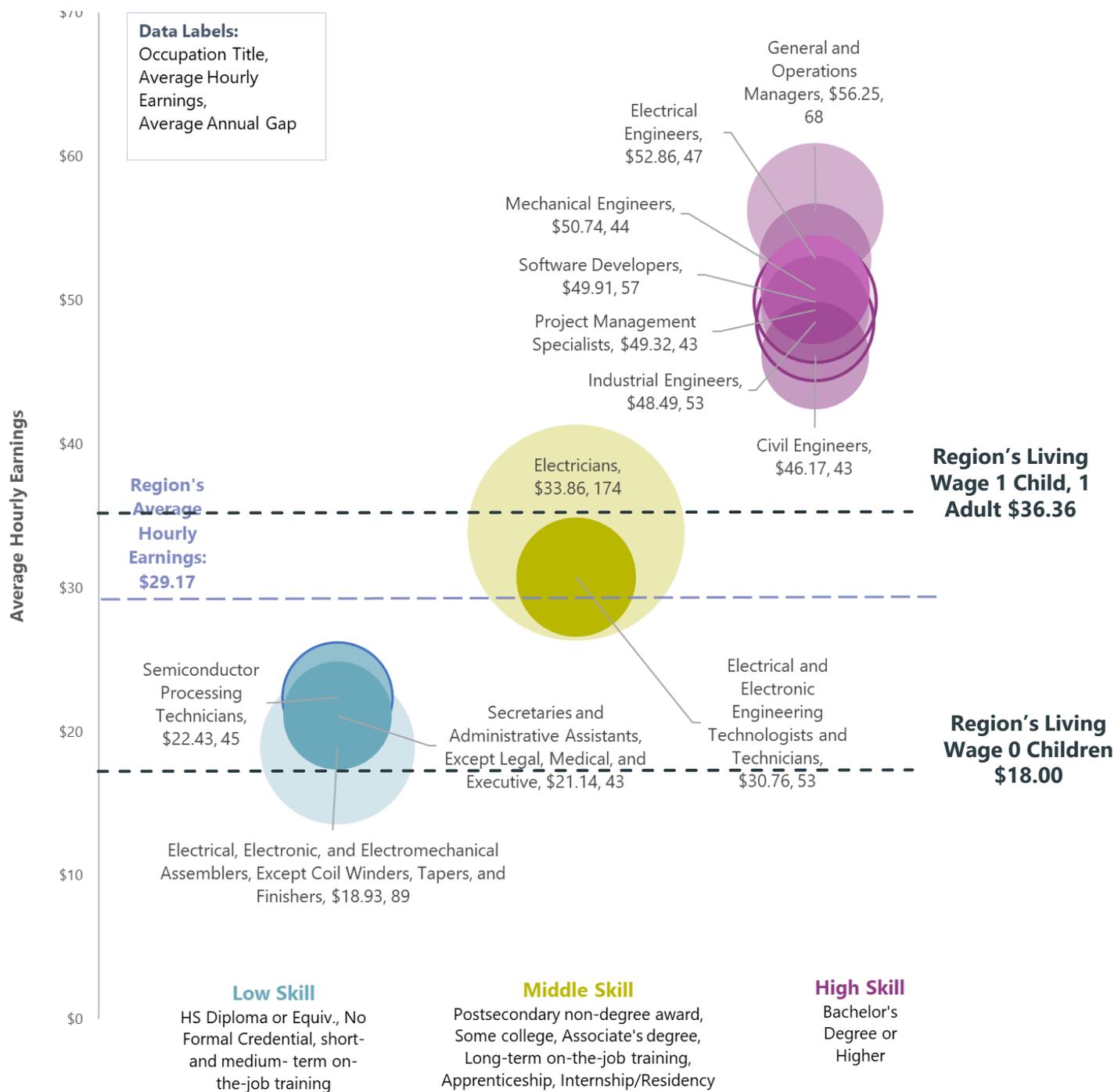
- Identify gaps: populations, geographies, services, resources
- Partnership development
- Assessing program capacity
- Referrals
- Resource sharing
- Pathway mapping

Occupation Gap Analysis



Why an occupation gap analysis?

- Examine the undersupplied occupations in an industry within a region
- Identify what skills the workforce currently has, what skills employers need, and how to fill in gaps in the workforce pipeline
- Identify the occupations where shortages and excesses of workers are projected

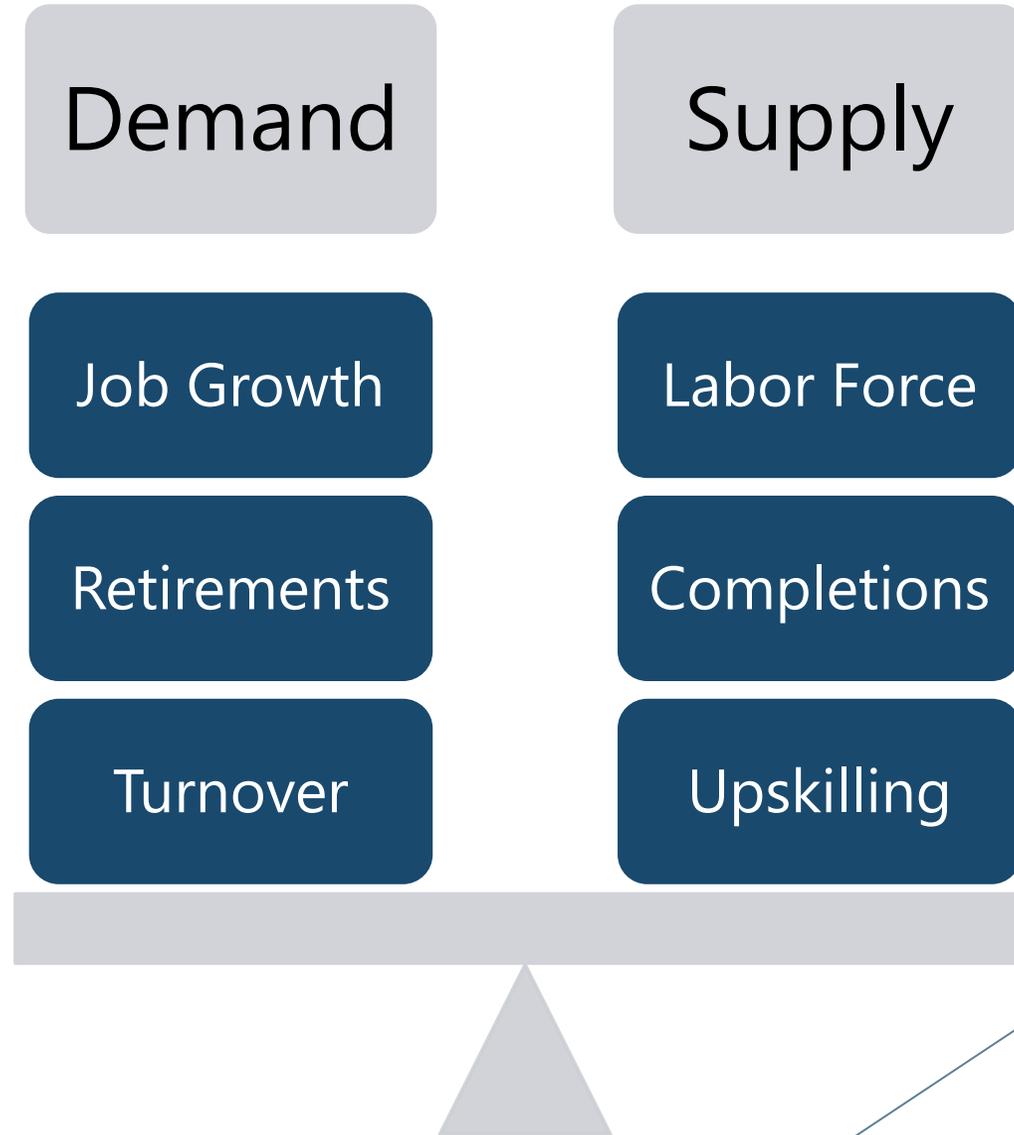


Clean & Renewable Energy Top Gap Occupations, Capital Region 2022

Occupation Gap Analysis Approach

- Pull the staffing patterns for your target industry
- Identify occupations that are important to the industry AND that will have substantial job openings in the next 5 years
- Evaluate workforce supply
- Estimate gaps

Evaluating Supply and Demand



Baseline Scenario Workforce Gaps

SOC	Top Broadband Occupation	2021 Jobs (1)	2022 - 2032 Projections				Average Annual Gap	
			Labor Force Change (2)	-	Openings (3)	=		Gap
43-4051	Customer Service Representatives	10,912	482		13,299		(12,817)	(1,282)
47-2061	Construction Laborers	6,521	326		6,795		(6,469)	(647)
15-1252	Software Developers	3,151	202		3,553		(3,351)	(335)
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	3,041	156		3,728		(3,572)	(357)
49-1011	First-Line Supervisors of Mechanics and Installers	2,473	121		2,262		(2,141)	(214)
13-1082	Project Management Specialists	2,180	116		1,867		(1,751)	(175)
49-9051	Electrical Power-Line Installers and Repairers	685	35		667		(632)	(63)
49-2022	Telecommunications Equipment Installers and Repairers, Except Line	537	26		623		(597)	(60)
49-9052	Telecommunications Line Installers and Repairers	379	19		440		(421)	(42)
49-9098	Helpers--Installation, Maintenance, and Repair Workers	313	16		421		(405)	(40)
17-2072	Electronics Engineers, Except Computer	189	10		153		(142)	(14)
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	84	4		104		(99)	(10)
TOTAL		30,467	1,514		33,912		(32,397)	(3,240)

Applications

- Identify training programs and address skills gaps
 - Collaborate with employers and training institutions
 - Develop industry-informed curriculum
- Communicate career opportunities to workers, students, parents, career counselors, and educators
- Establish strategic partnerships, including Dept. of Labor, Unions, Advisory Committee
- Pursue funding opportunities

Identifying Disconnected Populations



Approach

- Pull labor force participation demographics
- Estimate “jobless” populations by key demographics such as age, sex, race, disability, parental status
- Identify pools of disconnected or underutilized workers

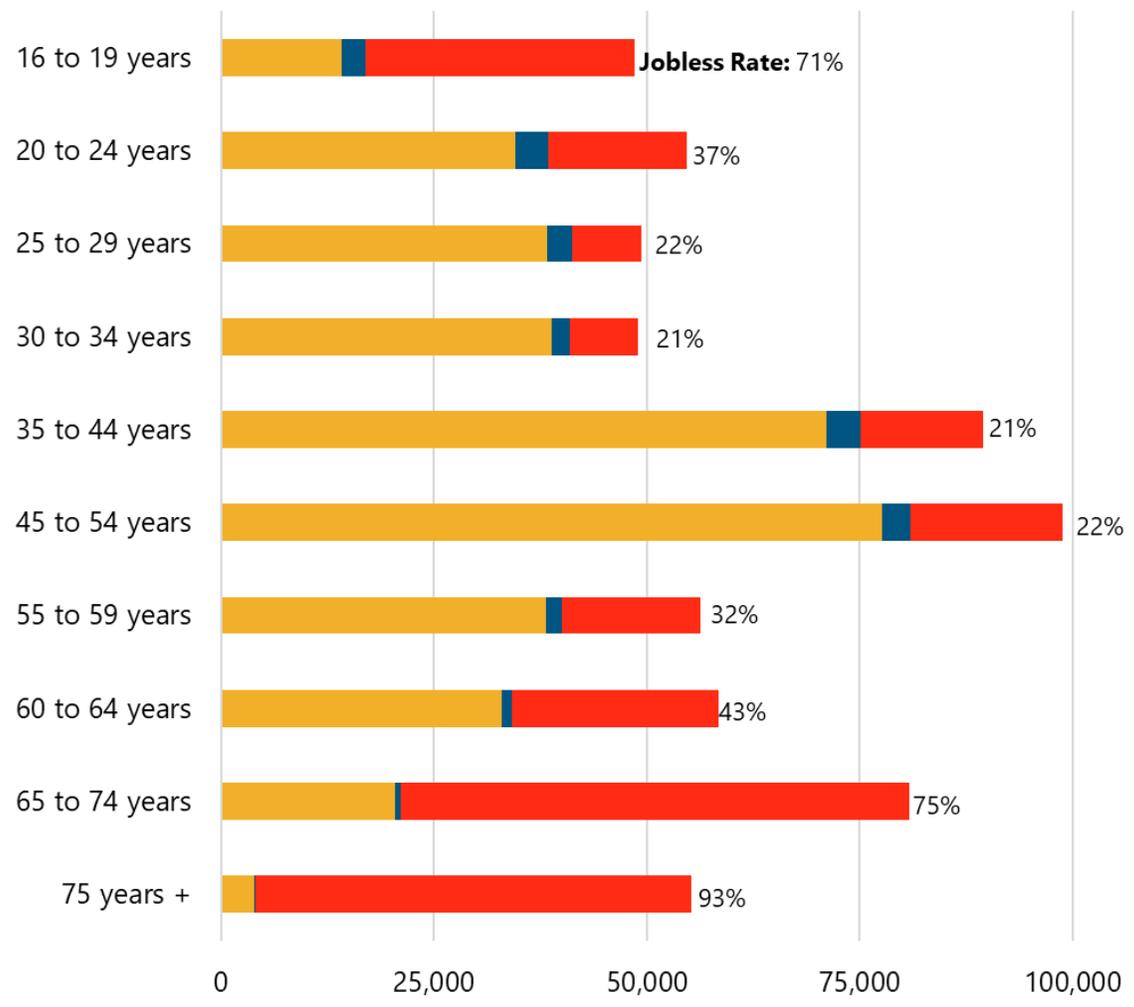
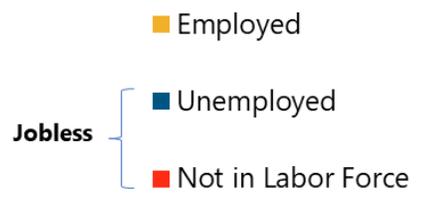
Empire State Development



Central New York

2021 Jobless Population by Age, Population Aged 16+

Overall jobless rate = 42%



Source: American Community Survey

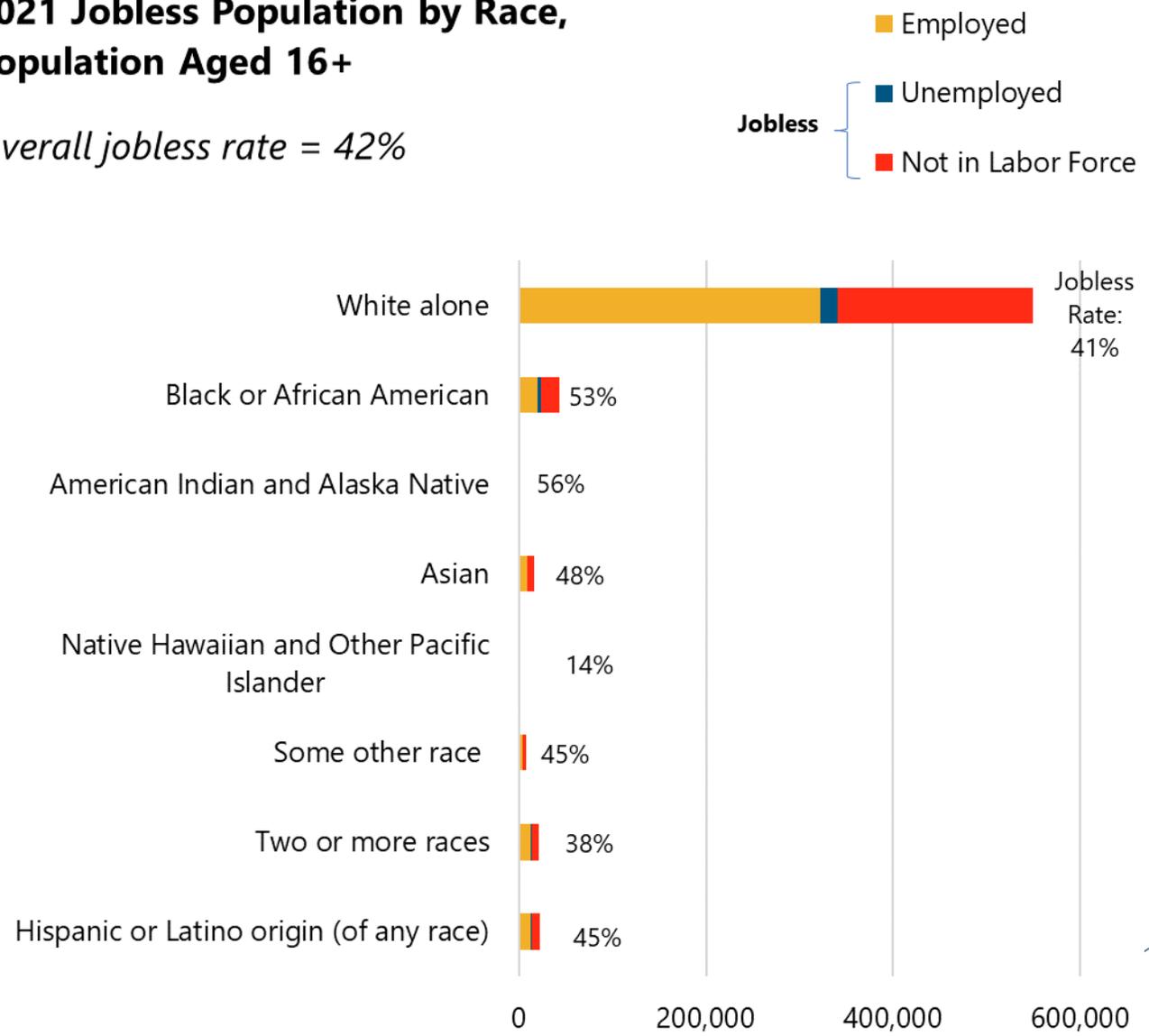
Empire State Development



Central New York

2021 Jobless Population by Race, Population Aged 16+

Overall jobless rate = 42%



Source: American Community Survey, Prepared by Camoin Associates

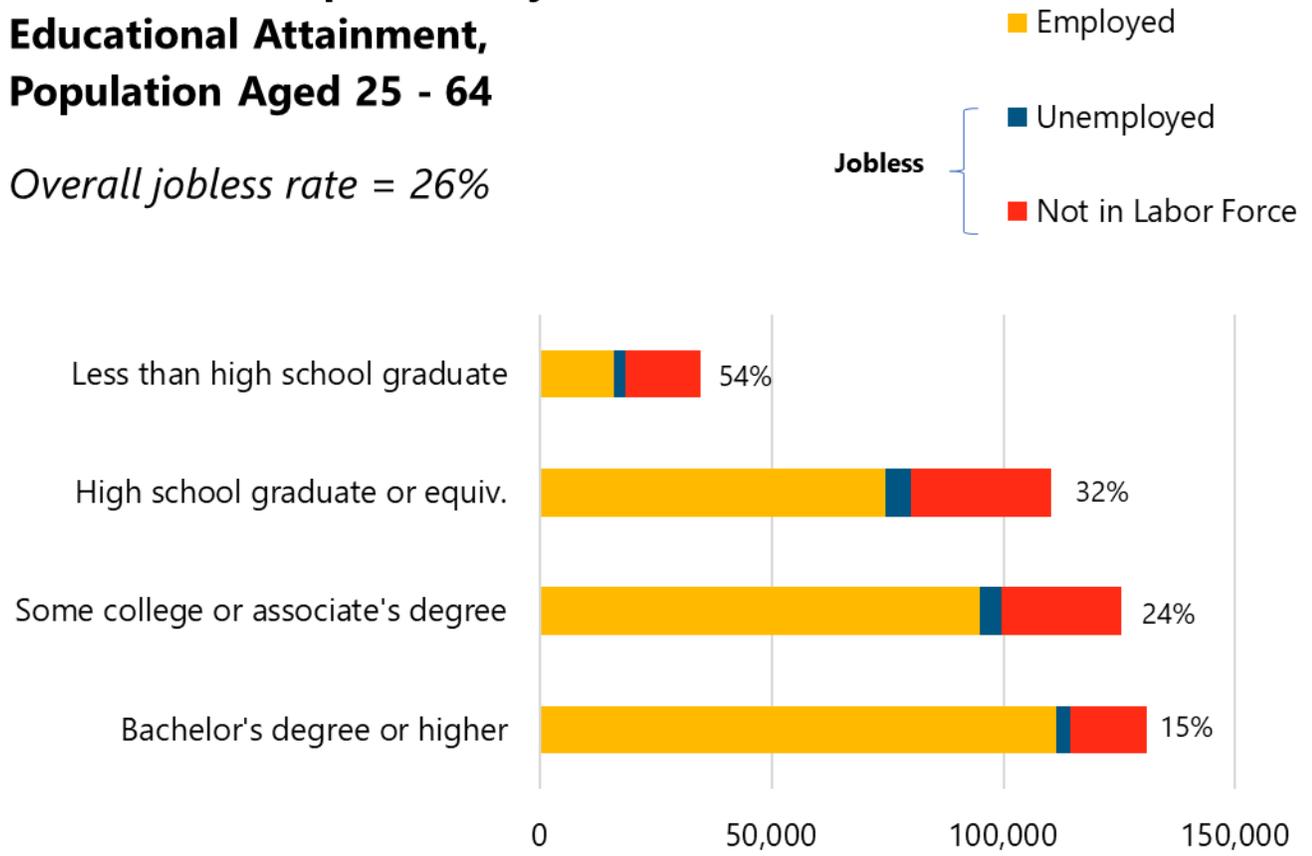
Empire State Development



2021 Jobless Population by Educational Attainment, Population Aged 25 - 64

Overall jobless rate = 26%

Central New York



Source: American Community Survey

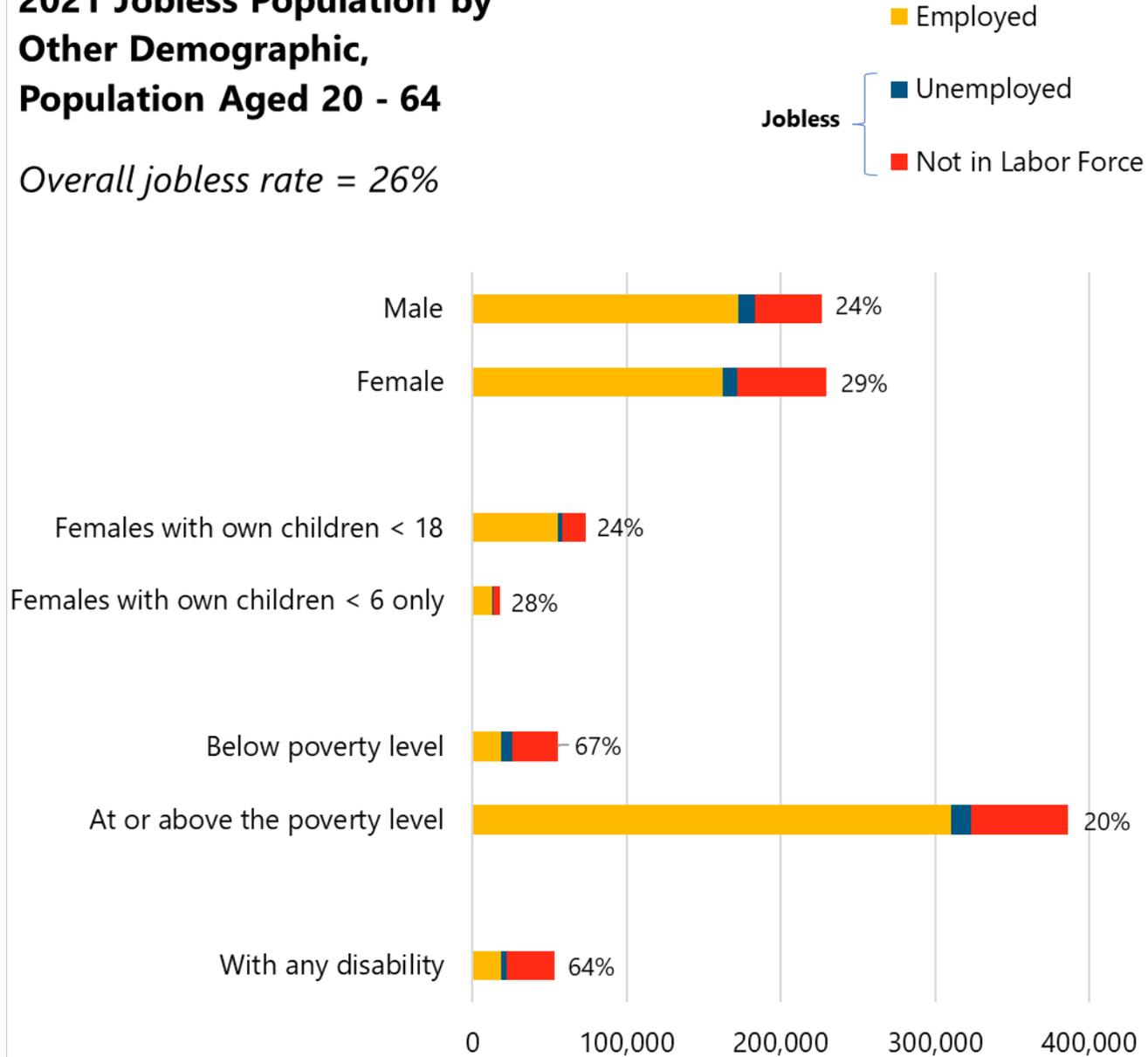
Empire State Development



Central New York

2021 Jobless Population by Other Demographic, Population Aged 20 - 64

Overall jobless rate = 26%



Source: American Community Survey

Applications

- Combat the perception that “no one wants to work”
- Partner with community groups to remove barriers to employment and provide career awareness
- Communicate the importance of diversifying the talent pool to employers
- DEI initiatives

Applications

Best Practices:

- Cultural competence and sensitivity Training
- Depth understanding of population needs, barriers, and opportunities
- Utilize local community resources and talents
- Expectation management

The Workforce Plan Canvas (Adapted from the Business Model Canvas)

<p>Key Partners</p> <p>Who do we need involved?</p>	<p>Key Activities</p> <p>What actions are needed?</p>	<p>Value Proposition</p> <p>Issues and opportunities are we addressing? What sector(s) benefit?</p>	<p>Customer Relationship</p> <p>What connections do we or our partners have to target populations?</p>	<p>Customer Segments</p> <p>Who are the target populations? What do we know about them?</p>
<p>Key Resources</p> <p>What type of data/information/knowledge is needed?</p>	<p>Channels</p> <p>How will we engage partners and target populations?</p>			
<p>Cost Structure</p> <p>What is the investment needed? (Staff/Capacity and funding)</p>			<p>Revenue Stream</p> <p>Who will pay for it?</p>	

Thank you!

Dave Seeley
Executive Director



dseeley@rochesterworks.org

Kwame A. Yeboah
Workforce Development Manager



kyeboah@maineconnectivity.org

Christa O. Franz
Vice President



christa@camoinassociates.com