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TRANSPORTATION RESEARCH BOARD

# Workshop to Broaden the Diversity of the Skilled, Technical Transportation Workforce



Federal Transit  
Administration



SEPTEMBER 18, 2024



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Federal Transit  
Administration

# WELCOME AND OPENING REMARKS



**Mary Leary**

**Associate Administrator  
Office of Research, Demonstration,  
and Innovation  
Federal Transit Administration**

# FTA Workforce Development Initiative

Mary A. Leary, PhD, Associate Administrator  
Office of Research, Demonstration and Innovation

Workshop to Broaden the Diversity of the Skilled  
Technical Transportation Workforce

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9-18-2024



U.S. Department of Transportation  
Federal Transit Administration





# Federal Transit Administration (FTA) Workforce Development Initiative

**FTA Mission:** Improve America's communities through public transportation

**FTA Vision:** A better quality of life for all built on public transportation excellence

## FTA Workforce Development Initiative Projects

- Innovative Transit Workforce Development Projects
- Transit Workforce Center (TWC)
- National Transit Institute (NTI)
- High School and Youth Outreach
- CTAA National Center for Applied Transit Technology Data Literacy for Transit Workers

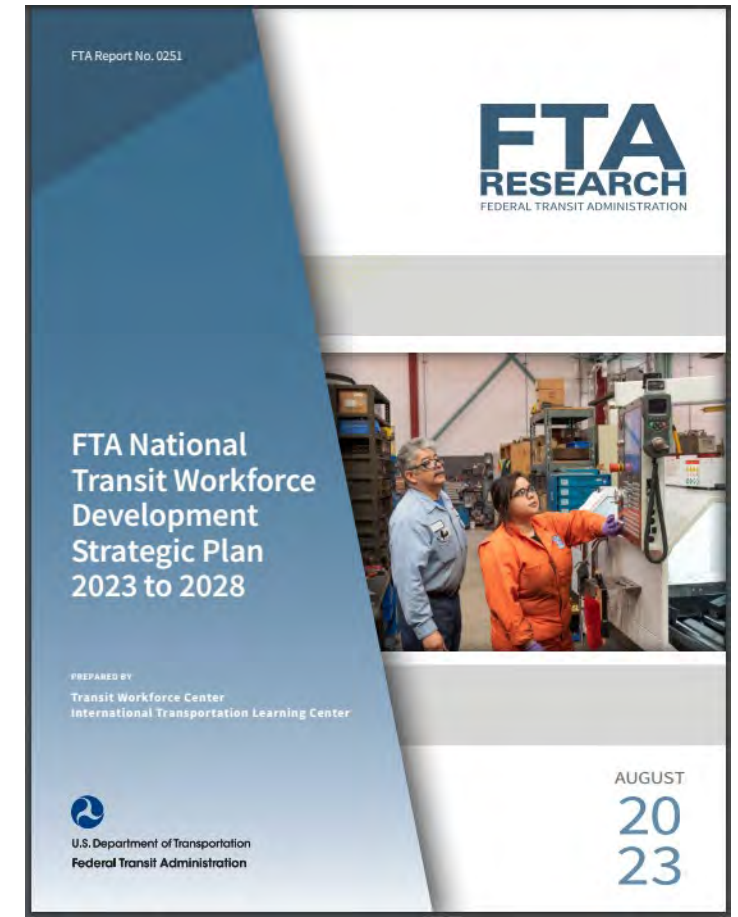
**Closely related projects** - APTA Standards Program and Transit Cooperative Research Program



# First FTA National Workforce Development Strategic Plan

[FTA National Transit Workforce Development Strategic Plan 2023 to 2028 \(dot.gov\):](#)

1. Worker Safety & Health
2. Workforce Investment
3. Recruitment & Outreach
4. Retention
5. Skills Development & Career Advancement
6. Workforce Metrics



# FTA and TWC Regional Transit Agency and Department of Labor Partner Networking Events

- FTA will hold convenings in each FTA Region
  - **Networking:** Introduce transit workforce leaders to DOL workforce partners
  - **Breakout sessions:** to start joint planning in key areas
  - **Education sessions:** share information about DOL workforce programs

*Build Momentum and create shared understanding of ways to partner and plan together*

# Ways to Connect with FTA's Workforce Initiative

- **Reach out to the TWC:** they provide technical assistance, online statistics, training, resources
- **Connect with NTI Training**
- **Assist with Zero-Emission Maintenance Worker Training:** agencies must use 5% of low emission bus funding for workforce development
- **Help us expand partnerships:** FTA is looking for ways to connect with community colleges, trade schools, high schools to roll out a national transit jobs awareness and outreach campaign
- **Participate in the FTA/DOL Convenings**

# FTA Workforce Development Resources

FTA National Transit Workforce Development Strategic Plan 2023 to 2028

<https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-08/FTA-Report-No-0251-rev.pdf>

Transit Workforce Center (TWC)

<https://www.transitworkforce.org>

National Transit Institute (NTI)

<https://www.ntionline.com/>

Zero Emission Vehicle Fleet Transition

<https://www.transit.dot.gov/funding/grants/zero-emission-fleet-transition-plan>





# Contact

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About FTA



Workforce Resources

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U.S. Department of Transportation  
Federal Transit Administration

# KEYNOTE: EXPANDING THE TALENT POOL OF THE TRANSPORTATION WORKFORCE



**Toks Omishakin**

**Secretary of Transportation  
California State Transportation  
Agency**

A blurred background image showing a busy transit station. In the foreground, several people are riding bicycles. In the background, a blue and white train is visible, with people standing on the platform. The overall scene suggests a focus on public transportation and urban mobility.

# Transportation Research Board National Academies of Sciences, Engineering & Medicine

*Workshop to Broaden the Diversity of the  
Skilled, Technical Transportation Workforce*



CA Transportation Secretary Toks Omishakin  
September 18, 2024





# INFRASTRUCTURE BILL



Roads and  
Bridges  
**\$110B**



Electric Grid  
Upgrade  
**\$73B**



Passenger  
and Freight  
Rail  
**\$66B**



Broadband  
**\$65B**



Improved  
Water  
Quality  
**\$55B**



Climate  
Change  
Protection  
**\$50B**



Airports  
& Ports  
**\$42B**



Public  
Transit  
**\$39B**



Environmental  
Clean-Up  
**\$21B**



Electric  
Vehicles  
**\$15B**



Transportation  
Safety  
**\$11B**



Reconnecting  
Communities  
**\$1B**



## Green-workforce-related programs in the IIJA and IRA, by federal agency

Agency	Programs	Funding (in millions)
Department of Energy	23	\$26,450
Department of Treasury	10	***
Department of Transportation	6	\$24,365
Environmental Protection Agency	5	\$9,090
Department of Agriculture	2	\$305
Council on Environmental Quality	2	\$63
Federal Energy Regulatory Commission	1	\$100
Department of the Interior	1	\$150
Department of Commerce	1	\$2,600
Joint Office of Energy and Transportation	1	\$4,230
Department of Transportation & Department of Energy	1	\$300
Department of the Interior & U.S. Department of Agriculture	1	\$7,100
<b>TOTAL</b>	<b>54</b>	<b>\$74,752</b>

**Source:** Brookings analysis of IIJA and IRA programs

**\*\*\*Note:** The 10 programs under the Department of the Treasury are for various tax credits. No specific funding total is available for these programs within the legislation.





## Examples of federal, state, and local entities responsible for green workforce development programming within the IIJA and IRA

### Federal Entities



- Multiple agencies involved in program design, funding, and regulatory oversight, especially for competitive programs
- Programs typically vary by the type of infrastructure project and activity
- Other key responsibilities include technical assistance, training, research, permitting, and development

### State & Local Entities

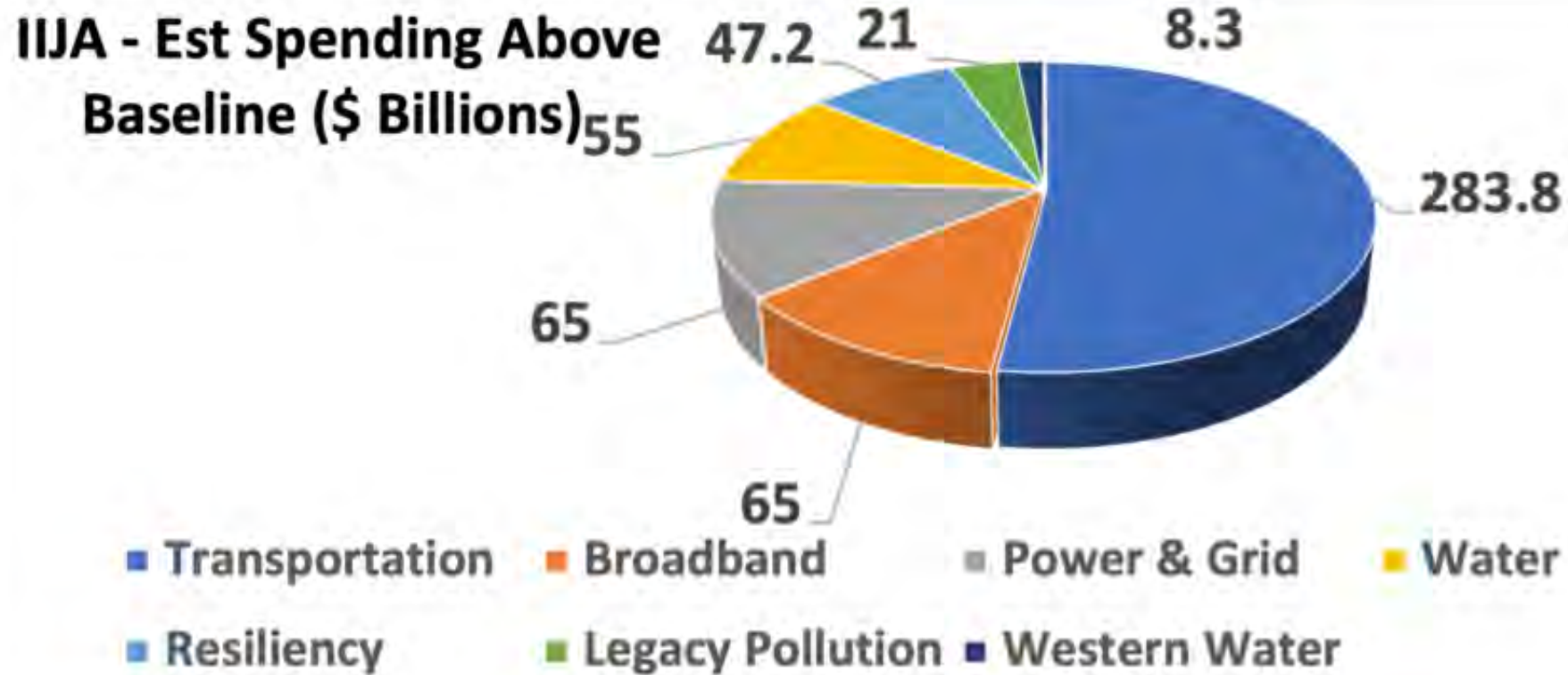


- Numerous state and local entities are responsible for infrastructure project delivery and service provision—and workforce planning
- These entities are eligible for IIJA and IRA funding and serve as major employers
- These entities can also coordinate with community partners (e.g., nonprofit organizations, trade schools).



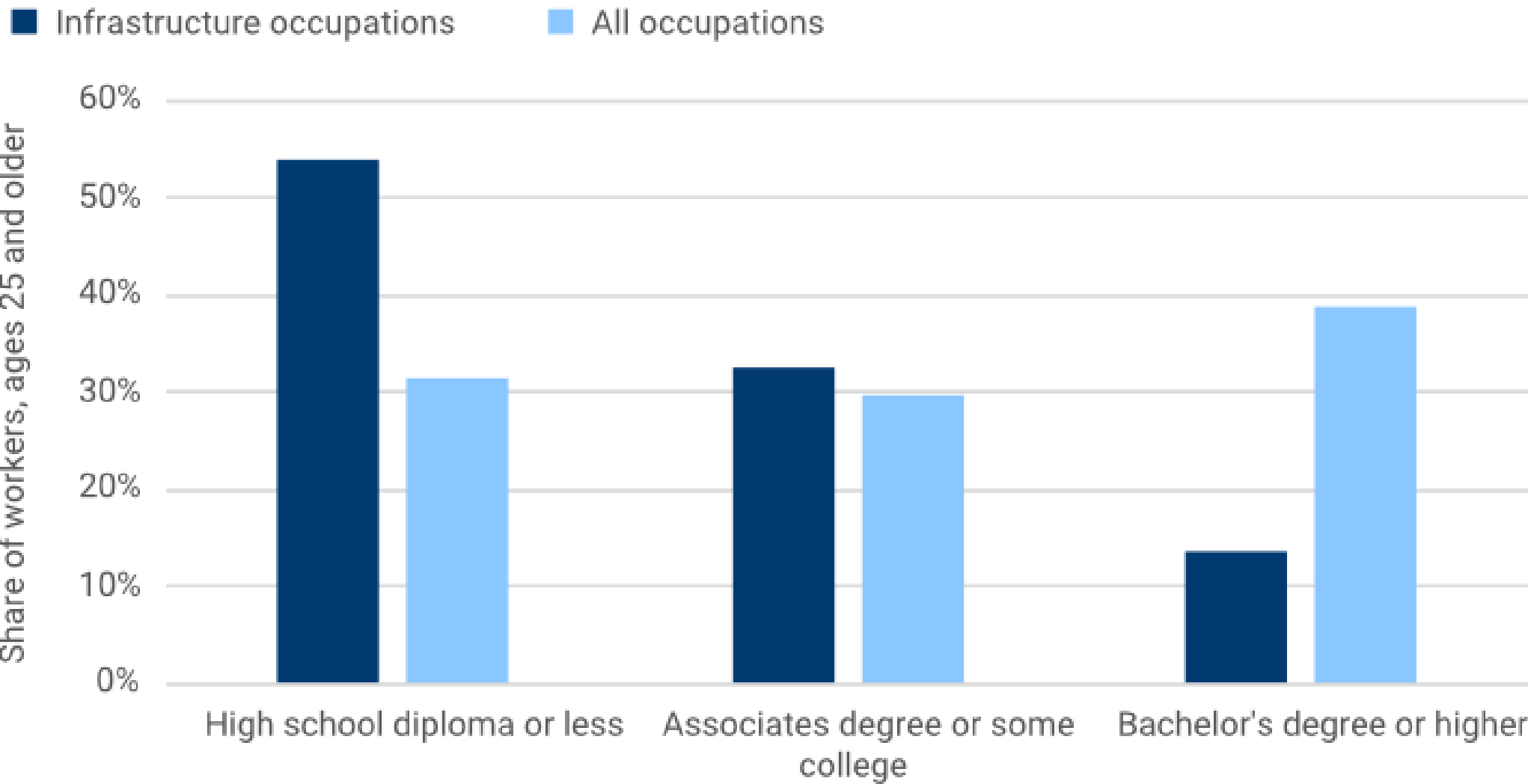


# CLIMATE-INFRASTRUCTURE INVESTMENTS BOOSTING JOB QUALITY AND EQUITY





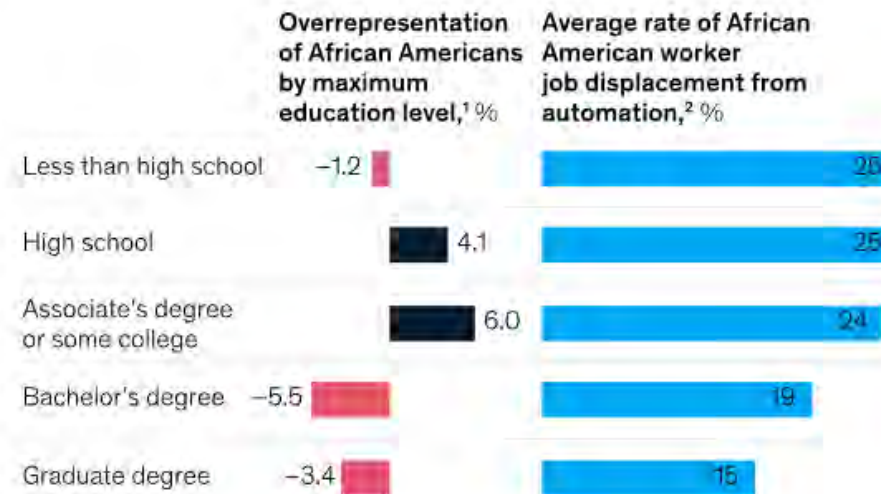
## Levels of educational attainment for infrastructure occupations vs. all occupations, 2021





# IMPORTANCE OF EDUCATION & TRAINING

Increasing educational attainment can help the African American workforce better prepare for coming automation-driven disruption.



Jobs lost due to automation for workers with a college degree, %



White Americans with a college degree (including graduate degrees)



African Americans with a college degree (including graduate degrees)

<sup>1</sup> Difference between share of African American population and overall population at each stage of educational achievement.

<sup>2</sup> Average midpoint automation displacement rate of jobs per minimum education requirement.

Source: Bureau of Labor Statistics; US Census; McKinsey Global Institute analysis

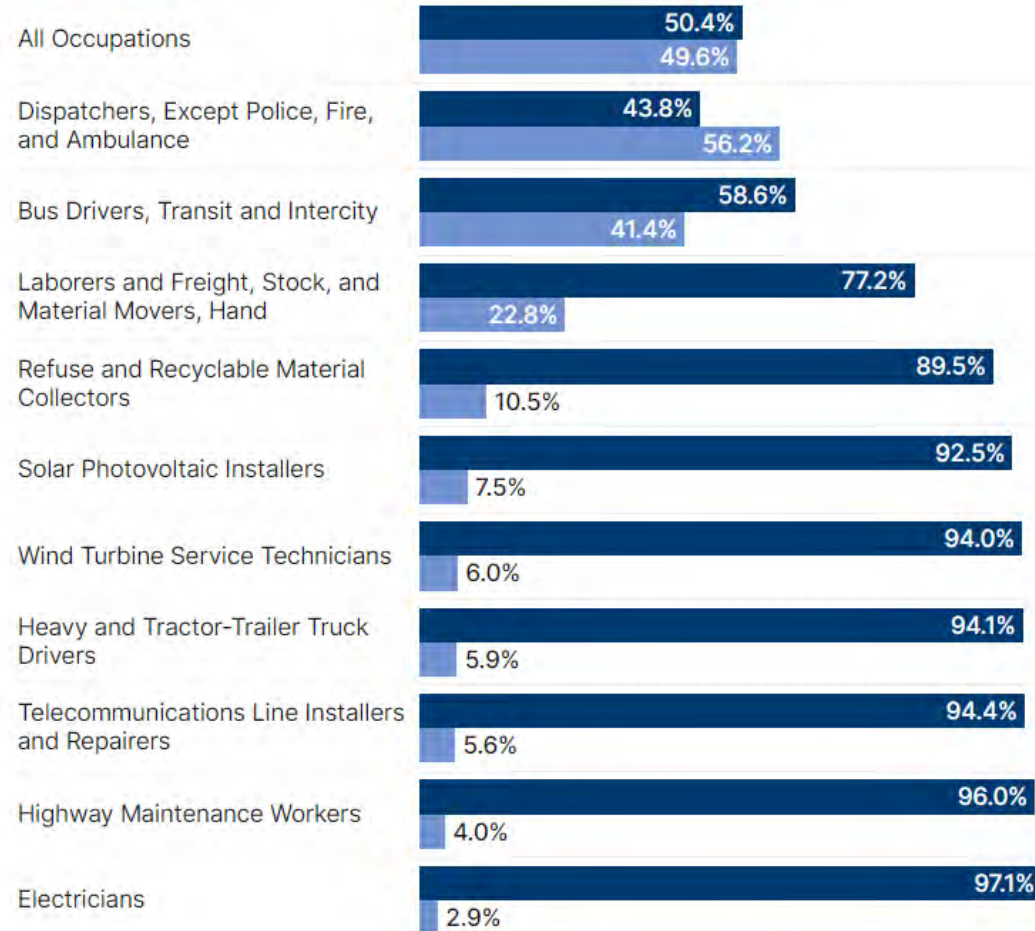




# LACK OF GENDER DIVERSITY IN SELECTED INFRASTRUCTURE OCCUPATIONS

2021

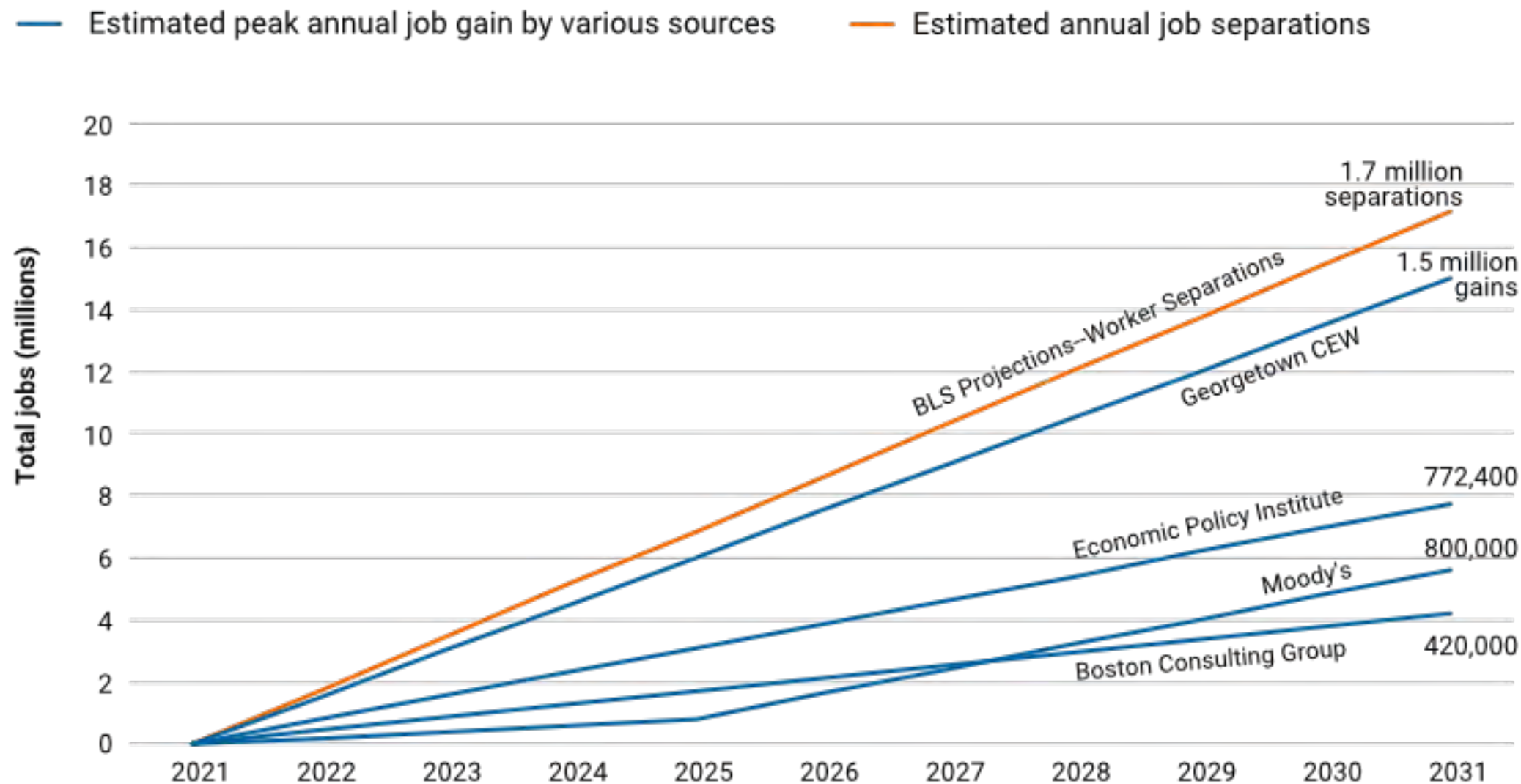
■ Men ■ Women



Source: Brookings analysis of BLS Occupational Employment and Wage Statistics and Lightcast data



## Estimated new infrastructure job creation vs. infrastructure jobs that need to be filled due to worker separations, 2021 to 2031





# DEPARTMENT OF ENERGY (DOE) HBCU CLEAN ENERGY EDUCATION PRIZE

## HBCU Clean Energy Education Prize Partnerships Track **Phase 1 Winners!**



AMERICAN  
**MADE**  
U.S. DEPARTMENT OF ENERGY





## CALSTA'S CORE FOUR PRIORITIES



### SAFETY

Nearly 10% of all the year 2021 traffic deaths in the U.S. occurred on California roadways. Fatalities for Active Transportation users are also at a 16-year high. By embedding the Safe System approach into our investments, planning, design and innovation, we will be able to achieve better outcomes on this urgent responsibility.



### EQUITY

Historically, transportation decisions prioritized movement of vehicles over the movement of people. We also built a transportation system that in some cases had detrimental impacts in underserved communities. We aim to create an equitable and accessible transportation network and to provide equitable opportunities for all people.



### CLIMATE ACTION

Nearly half of all climate-changing pollution in California comes from the transportation sector, and this demands our action for a cleaner future for all Californians. We must continue making our carbon footprint smaller by investing in a more multimodal system, embracing smarter land use development and utilizing innovation around zero emission vehicles.



### ECONOMIC PROSPERITY

Transportation policy done right creates well-paying jobs, provides affordable options, supports housing opportunities and powers our economy. This must be our focus as we strive for all people to be on equal footing, resulting in more thriving, robust communities.

# CALSTA'S CORE FOUR PRIORITIES

- SAFETY
- EQUITY
- CLIMATE ACTION
- ECONOMIC PROSPERITY





# CALTRANS ENGAGEMENT



## Come join Caltrans for an information session

This information session is ideal for anyone who is looking for a part-time student assistant position or for a full-time position with the State of California. We will go over the state hiring process which includes creating an account, taking an exam and applying for jobs!

We offer many different opportunities statewide from entry level to managerial positions.

We have opportunities in various fields including:

- Administration
- Engineering
- Environmental
- Equipment
- Information Technology
- Legal
- Maintenance
- Planning
- Surveys

**Date:**  
**August 13, 2020**

**Time:**  
**2:00 PM**

Register via Zoom:  
<https://tinyurl.com/CalTransCareers>

- Engagement includes K-12, High Schools, Community Colleges, CSUs, non-traditional and trade colleges, community programs, professional organizations and state partners.
- Commitment to meeting workforce talent pipeline needs—fostering relationships. educating potential talent and tapping into underrepresented groups







# WORKFORCE DEVELOPMENT

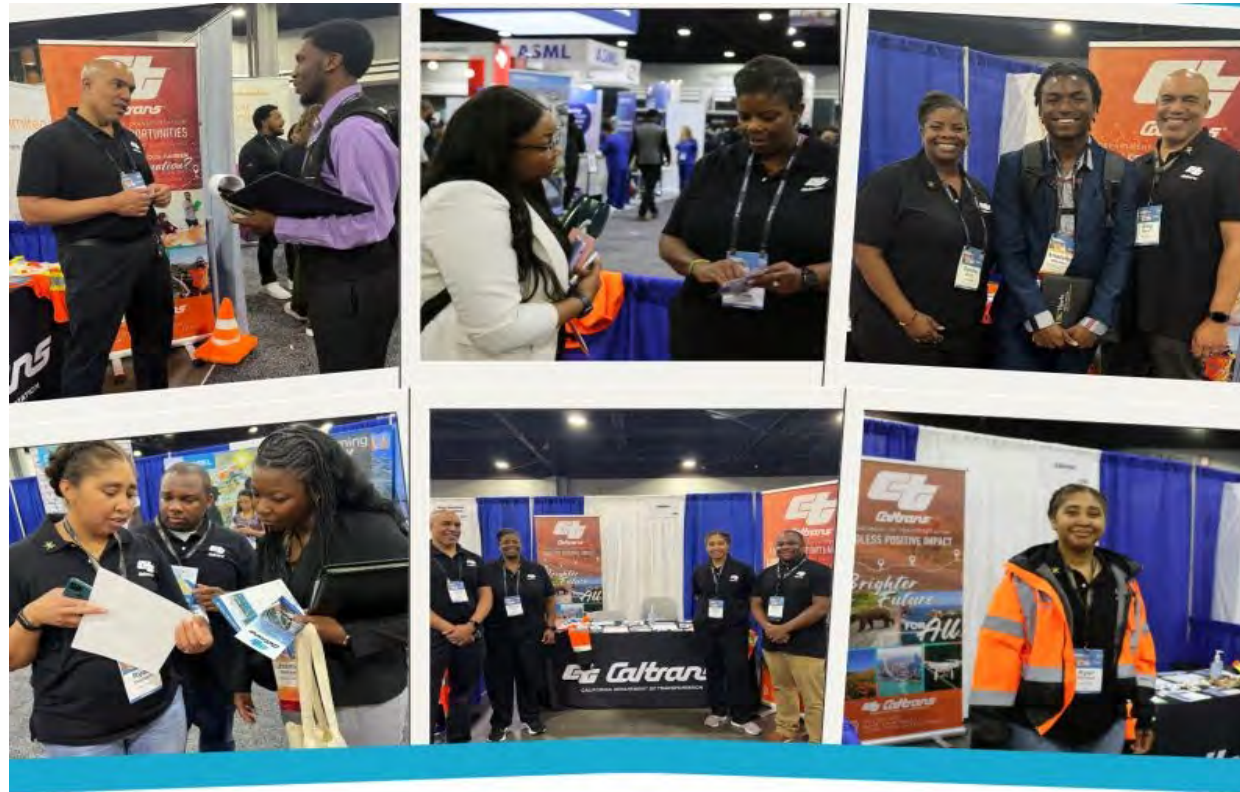


- Must explore non-traditional methods to adapt to/meet industry's needs; search/develop talent innovatively; critical to tap into more diverse talent pool:
- **Handshake** platform connects us to educational institutions including MSIs and HBUs
- **Career Compass** helps navigate complex application process
- Launching **Career Center** to host workshops & forums; provides community access to resources, computers to apply for state jobs
- **High-Speed Rail apprenticeship**
- Governor Newsom signed EO N-11-23: Master Plan for Career Education





# LEVERAGING OPPORTUNITIES TO TAP INTO TALENT



- 15,000 attendees at NSBE 50<sup>th</sup> Annual Convention
- On-site Career Fair excellent opportunity to tap into talent & network, recruit, participate in knowledge sharing for hiring strategies



***CALTRANS TAKES ATLANTA BY STORM  
AT NSBE'S NATIONAL CONVENTION***



# CONTINUOUS TRAINING



- Longevity & success of partnerships important element of strength of workforce
- Must secure funding & additional resources to meet our future talent needs effectively
- Great pride in our apprenticeship programs for Heavy Equipment Mechanics and Structural Steel Painters







# STEM ACCESS

## STEM CORE

Employer Partner:  **Caltrans**



How is Cal Trans involved in working with the STEM Core program?  
We take in highly motivated students and place them in various fields within Caltrans to get hands on experience in Transportation Engineering and what we do in Caltrans. We feel that STEM fields can seem intimidating and that practical exposure to these fields helps students see how their studies correlate to the professional world. The enthusiasm and energy from the students is invigorating.

Words of advice to STEM Core participants?  
Don't be daunted by anything in the STEM field and try it out. You'll be surprised at how much you know and how much you can apply. This can open your mind to what is out there and open your potential.

-Anthony Ng, P.E. - Chief  
Caltrans District 7 – Division of Design



# BROADBAND ACCESS

- Middle-Mile Broadband Initiative: helping improve access to education, employment opportunities, health services







# PARTNERSHIPS

## UC ITS Meets with Caltrans



- Partnerships are the Golden Key to our work
- Achieve greater success together
- Provide opportunities, collaboration, support; share resources & knowledge

Tell me and I forget.  
Teach me and I may  
remember.  
Involve me and I learn.

-Benjamin Franklin



# Thank you!



@ToksOmishakin





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# Panel 1: Recruitment of Diverse Populations and Addressing Employment Barriers



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**Antonne Henshaw**  
**Program Coordinator, Rutgers University**  
**CEO and Founder, Transformative Justice Initiative**



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**Krystalyn O'Leary**  
**Bus Operations Program Manager**  
**Golden Gate Bridge, Highway and Transportation District**





  SANTA ROSA  
JUNIOR COLLEGE   

**SONOMA-MARIN  
BUS OPERATOR  
PRE-APPRENTICESHIP  
PROGRAM**



Rules, Policy and Industrial Relations Committee  
September 18, 2024



# PROGRAM BACKGROUND



Santa Rosa Junior College's Sonoma-Marin Bus Operator Pre-Apprenticeship Program (PA) will provide a pathway to family-sustaining career opportunities to residents in Sonoma and Marin Counties.

**1<sup>st</sup>** PA program  
linked to an  
apprenticeship  
program  
CA transit industry



**70-80%**  
fulfillment of  
workforce needs  
for GGT

Industry-specific vocabulary, workplace soft skills, and writing are among the critical skill needs that have been developed for classes



# Pre-apprenticeship Program with Santa Rosa Junior College

- **Outreach Specialist** to leverage strong communities ties & actively advocate/recruit for GGT Bus Operator positions, especially in Priority Populations.
  - Also serves **as personal support for students/pre-apprentices**
  - Coordinates closely with GGT staff & ATU on student performance and/or if 1:1 support needed from Mentors, GGT Staff, etc.
- 12-week program offered by SRJC's Adult Education Department (includes Practicum & Shadow Days)
  - Virtual classes: workplace soft skills, customer service, communication, collaboration, self-advocacy, basic computer skills; bilingual offerings support ESL students
  - **Practicum will incorporate application and interview process.**
  - Two onsite Shadow Days at GGT - contextualize classroom learning, provide work environment exposure
  - **Mentors & ATU Leadership help shape & deliver curriculum**
- Seamless connection to full-time employment & the Bus Coach Operator Apprenticeship Program with College of Marin
- **Signing bonus (\$1,000 upon completion or pre-apprenticeship)**





# Data Collection on “Front Door” Challenges

- Approximately 67% of applicants didn't/ couldn't submit a completed application.
  - Asian/Native Hawaiian/Pacific Islanders (AAPI) struggled the most. Hispanic applicants a close second.
- Of the 33% of applicants with complete applications, 40% of them failed the written skills test required for gauging business skills.
  - AAPI and Hispanic applicants appeared to struggle the most.
- At this point, of the total, original applicants (including complete & incomplete applications), only 20% of them proceeded to the interview phase.
- Approximately 16% of the total, original applicants were ultimately offered employment as Bus Operators.
- Majority of applicants live in Priority Populations (PPs) /Disadvantaged Communities, many of which live 1-2.5 hours away from GGT facilities. *Could benefit from more focused recruiting in local PPs closer to work.*

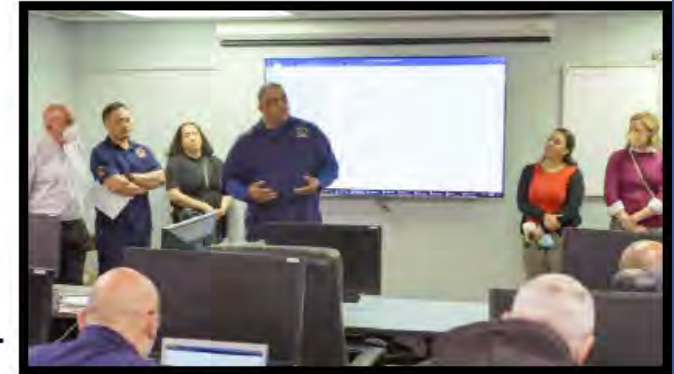
# Mitigating Employment Barriers & Commitment to Equity

## Addressing employment barriers:

- **Completion of application process** as graduation requirement - part of SRJC program (Practicum)
- **GGT written skills test waived** with completion of program – SRJC courses & GGT Shadow Days should ensure candidates are prepared to enter the training/apprenticeship program
- **Interview process folded into 2<sup>nd</sup> Shadow Day**

## GGT Commitment to Racial Equity/Justice & Inclusion:

- Focused recruiting in Priority Populations
- Pathway to union-represented employment, career stability, and family-sustaining benefits through investments & support from local colleges, Union, GGT (employer), local colleges, and Mentors
- Building skills & creating educational opportunities for those from disadvantaged/underserved communities
- Bilingual instruction to create a more inclusive learning environment





## Reevaluate & Revise Minimum Qualifications

Reevaluated Bus Operator position minimum qualifications, also influenced by our commitment to racial equity/justice. Changed requirements related to:

- **High school diploma waived** for pre-apprentices upon completion of program: SRJC will offer an alternative test for reading and writing competencies.
- Driving Experience: Must be a **licensed driver for at least three (3) years** upon completion of the pre-apprenticeship program. **Minimum Age (in this case) = 19 years.** (Regular standard is 7 years as licensed driver.)
- Moving violations: **Applicants with more than two (2) moving violations within the last three (3) years will be reviewed on a case by case basis and such violations may be cause for non-selection.** (Prior standard: No more than two (2) moving violations within the last three (3) years. No exceptions.)
- **Other violations, citations, and/or accidents will be reviewed on a case by case basis and may be cause for non-selection.**



# PROGRAM REQUIRED COURSES

- **ADLTED 766.2: Lifelong Learning & Professionalism**

Develop life-long skills, problem-solving skills, and professionalism for success in the workplace.

- **ADLTED 766.3: Communication & Customer Service**

Focus on communication, customer service, and non-conflict resolution for success in the workplace.

- **ADLTED 766.5: Transition to Careers - Practicum**

Understanding of recruiting, onboarding, training, and management practices of the industry and public employers; workflow; and professional expectations.





# Wraparound Support Programs

- **Partnership with Canal Alliance of San Rafael, CA**

- 2-years of wraparound services provided to clients upon completion of COM Apprenticeship Program: ESL, career support, transportation, rental assistance, etc.
- Feedback loops/ collaboration channel to support employee success ONLY with employee consent.
- Canal Alliance helps GGT staff better understand and respond to employee needs with empathy
- Will check-in with Bus Operators/ clients on job performance, attendance, etc.



- **Bus Operator Mentor Program**

- Collaboration channel between Canal Alliance Client
- 1:1 meetings and ride-a-longs between Mentor & Mentees to create forums for career feedback and advice
- 6<sup>th</sup> course in Apprenticeship Program provides group forum for Mentors & Apprentices for problem-solving & learning

[No Title]



# Contact Information

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# **Jorge Quezada**

## **Chief Inclusion Officer and VP of People & Culture**

### **Granite Construction**



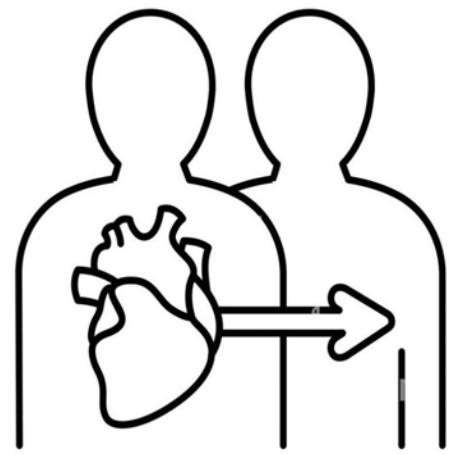
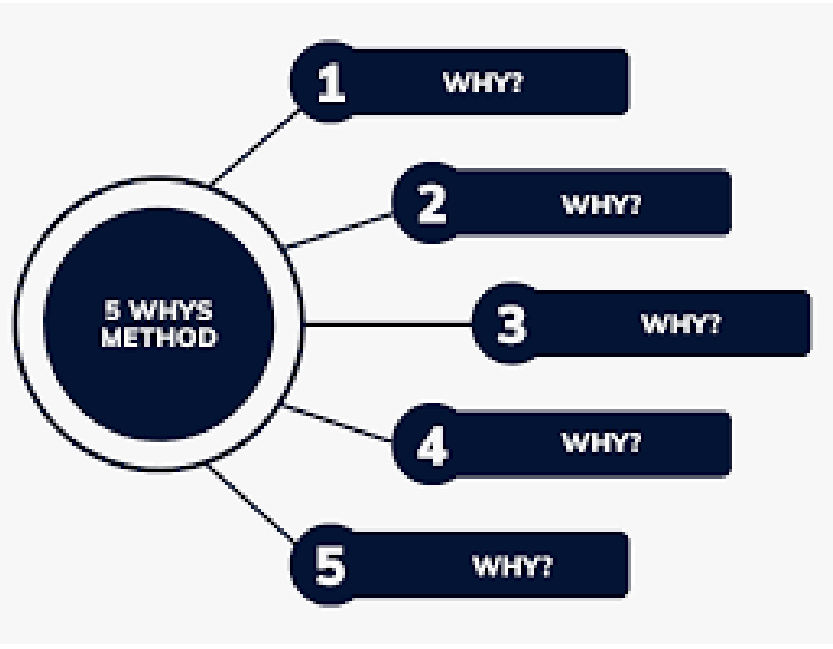


**NASEM Workshop to Broaden the Diversity of the Skilled, Technical Transportation Workforce  
Recruitment of Diverse Populations and Addressing Employment Barriers**

Jorge Quezada – Chief Inclusion Officer









# Inclusive Diversity (ID) Engagement Portfolio

