



TRANSIT WORKFORCE READINESS GUIDE



Photos (clockwise from top left): LA Metro, TransLink, Sound Transit, Southeast Transportation Workforce Center



AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION

APTAU
Delivering the Future-Ready Workforce

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EXECUTIVE SUMMARY

Former APTA Chair Nuria Fernandez identified workforce readiness as one of her key initiatives, and APTA has developed the Transit Workforce Readiness Guide as a resource for the transit industry. The guide was developed under the direction of APTA's Workforce Readiness Task Force and is based on interviews with 35 organizations, including transit agencies, academic institutions, private sector organizations, and other partners.

The primary goal of the guide is to help transit industry executives and the industry as a whole to better market transit as a career, with an emphasis on programs and outreach to attract disadvantaged high school and young college students regarding viable job opportunities in the transit industry. The guide showcases existing transit industry programs and shows how students can have meaningful job opportunities in the transit industry.

The guide is organized into three parts:

- **Part One: Creating a Workforce Readiness Program** contains an introduction to workforce readiness issues in the transit industry. It describes why APTA developed this guide, including why it's important to focus on workforce readiness opportunities for high school and young college students, particularly disadvantaged students. It also describes five steps to implementing a workforce readiness initiative.
- **Part Two: Case Studies** contains findings from 35 interviews with executives from transit agencies and other organizations. These interviews identify existing programs and best practices related to workforce readiness.
- **Part Three: Sample Materials** includes materials provided by interviewees to support workforce readiness initiatives. These include examples related to internship and apprenticeship programs, recruiting, training and entry-level jobs.

This executive summary contains key information related to each part of the guide.



Part One: Creating a Workforce Readiness Program

INTRODUCTION

Even in the most challenging times, visionary transit leaders understand the importance and benefits of investing in a sustainable workforce—to secure the industry’s future, as well as to empower others to have a brighter future. Now more than ever, the transit industry must reach out to high school students and young people by introducing them to transit and its many career opportunities. Building a new generation of a public transportation workforce requires new models, new partnerships, new toolkits and new approaches.

Transit agencies are transitioning to applications of new technologies, new energy sources, new models of service and collaborations through nontraditional partnership models. This calls for a nimble workforce that brings a range of knowledge, skills and accumulated experiences from customer service to technology applications.

This report focuses on one promising strategy for beginning to resolve this workforce crisis: focusing transit awareness messages and training on high school and young college students. The reason for this is fourfold:

These students currently have limited awareness of transit as a career field. Although many jobs in the transit sector should be appealing to teenagers and young adults—as they are green jobs on the cutting edge of technology—transit jobs simply aren’t on their radar.

At this age, students often have clearly defined interests but have not yet solidified their future plans. Students with an existing interest in mechanical or electronics programs are often delighted to find that transit is on the cutting edge of these fields and has state-of-the-art facilities. And they are universally surprised by the wide variety of jobs available.

The ability to hire and train young employees is a win for transit agencies. Due to budget pressures, many transit agencies prefer to hire workers at the entry level when possible, rather than hiring midcareer professionals with higher salary demands. To do that, these agencies train and promote from within to fill management and midlevel positions whenever possible, eventually creating an externally advertised job opening at the entry level.

Understanding the potential of a transit career helps keep students on track. High school students who are not bound for a traditional four-year-college—whether because of grades, economic circumstances, involvement with the justice system or other disadvantages—often resign themselves to a future without many opportunities and may drop out of high school. Getting the word out that many good-paying transit careers do not require a bachelor’s degree, and also may offer on-the-job training or tuition reimbursement, can give them the motivation to stay engaged in their education.

Transit agencies have always existed to serve their communities, in the form of improved mobility, environmental benefits, reduced congestion and increased safety, among other things. But an often-overlooked advantage of having transit in a community is the upward mobility that transit careers can provide to the local population. To ensure that these benefits reach all members of society, and to ensure that the transit workforce

Students with an existing interest in mechanical or electronics programs are often delighted to find that transit is on the cutting edge of these fields and has state-of-the-art facilities. And they are universally surprised by the wide variety of jobs available.

reflects the demographics of its surrounding community, many agencies have enlisted the help of a range of partners that provide services to underrepresented communities, people with disabilities, veterans, women, the underemployed, single parents and many other disadvantaged populations.

IMPLEMENTATION STEPS

This research identified five steps to create a successful workforce retention program to attract and retain younger workers.



Step 1: Identify needs and opportunities.

For many agencies, the first stage of developing a workforce readiness program is to fully understand the problems they are trying to solve. For example, agencies may want to estimate how many retirements they might be facing in the next five or 10 years and in what roles, look at retention by job category, determine the current demographic breakdown of employees to uncover representation gaps, and inventory entry-level job descriptions to understand structural barriers that impact recruitment.

Once the agency understands its needs, it can consider various avenues for exposing young people to transit and transit careers through programs that will be a win-win-win—for the agency, student and community. Many agency leaders interviewed for this report suggested starting small when possible to help get initial buy-in from executive leadership, unions, community leaders, parents and students. Once a program has achieved some positive results, those can be publicized and celebrated and the program scaled up as appropriate.

Some opportunities to consider:

- Ridership awareness programs are a natural place to target high school students and transit-dependent communities.
- Transit agencies would benefit from doing a better job of articulating their value to the community.
- Transit tours can be an eye-opener.
- Internships, pre-apprenticeships and apprenticeships serve multiple purposes.

Step 2: Form outreach partnerships.

Once the agency fully understands its own needs and opportunities, it should consider the needs and opportunities present in the community; the best way to do that, agency leaders say, is through partnerships.

The place to start is to talk to the partners the agency already has, to see how they can be expanded to include workforce development. It's also valuable to understand—through ridership surveys or other means—the

populations the agency currently serves, and to partner with community-based organizations that serve those same populations.

Step 3: Develop and implement programs.

Once an agency and its partners have identified a workforce readiness program that they're interested in starting, they need to develop and implement the program carefully to give it the best chance of success. Consider the following recommendations from stakeholders interviewed for this report:

- Identify as many stakeholders as possible, and turn them into advocates.
- Involve existing employees, and train them to be mentors.
- Remember the goals of the program.
- Start by educating parents and teachers.
- Focus on awareness.
- Provide transferable skills.

Step 4: Close the loop with entry-level jobs.

If a workforce readiness program is successful, it will begin to create a pool of potential workers who not only have some awareness and experience with the agency or industry, but who are also known quantities for hiring managers. But sometimes that's where those students find a dead end: There just isn't an entry-level job to offer.

A strategy many transit agencies are exploring is to create even lower-level jobs with clear pathways into entry-level positions that currently have structural barriers, such as the requirement for a CDL.



Step 5: Evaluate hiring, onboarding and retention.

To meet the needs and expectations of younger workers, the hiring and onboarding processes need to be drastically streamlined. Today's candidates expect a seamless experience when applying for a job, and they expect to be able to apply online, or even via a mobile device. They also expect the process to move rapidly and transparently.

Many transit agencies have experimented with ways to make hiring simpler, including bringing tablet computers to job fairs so students can fill out their applications on the spot. Several agencies also conduct job interviews at this type of event, both to give students the experience and to save time in the hiring process.

Best practices for onboarding young employees, developing a culture that embraces them and creating better retention for the whole organization include the following:

- Onboarding should connect employees with the agency’s culture.
- Ask all new employees about their needs in a non-stigmatizing way.
- Assign young employees a mentor or a buddy.
- Create a culture of inclusiveness.
- Implement bonuses and referral programs.
- Understand the expectations of young employees.
- Engage with employees throughout their career.
- Emphasize internal promotion.
- Update performance evaluations to focus on goals.
- Make training a budget priority.
- Create a culture of learning.

CALL TO ACTION

Developing a workforce readiness program can be a huge undertaking, but it also can begin incrementally, with the agency building on each of its successes. The techniques employed by the organizations interviewed for this report—assessing needs and opportunities, reaching out to partners, developing awareness programs, focusing on hiring at the entry level, developing employees through training and educational opportunities, and improving hiring practices and retention—have produced tangible benefits for the agencies, their employees, and the surrounding communities alike.

Visionary transit leaders have a clear call to action: to reach out to young people to introduce them to the many careers available in the transit industry. Generation Z has many assets to bring to the future transit workforce, with skills such as adaptability, willingness to learn and technical savvy that can help to advance the industry. And they are likely to find great rewards in transit careers, too.

Part Two: Case Studies

Part Two contains 35 case studies, describing the work of academic institutions, partners, private-sector organizations and transit agencies to develop, implement and promote workforce readiness initiatives. Each case study contains a brief description, followed by detailed information on programs and examples. Each case also contains links to additional resources, including external links to information on websites and internal links to resources that appear in Part Three of the guide.

Selected highlights include the following:

- **Chicago Transit Authority** has a successful eight-week summer intern program for young high school students. The program aims to teach both business and professionalism, and ends with students presenting their capstone projects.



- **Los Angeles County Metropolitan Transit Authority** has implemented a Career Pathways Program to promote employee development through every level of the organization. LA Metro uses a strategy of “underfilling” positions by promoting and hiring from within, to create jobs at lower levels within the organization. It is also building a transportation-themed high school in the city.
- **METRO Regional Transit Authority** has employed a strategy of hiring employees for “soft skills” such as customer service and does its own training in-house to enable candidates to obtain a CDL.
- **Monterey-Salinas Transit** has implemented a system of bonuses for employees making successful referrals for new hires, as well as for new drivers who reach milestones of 1,000 and 2,000 hours on the road to improve retention.
- **MTA New York City Transit** offers a paid transit electrical apprentice and transit mechanical apprentice program, and also works with a high school dedicated entirely to transit career training.
- **Pierce Transit** markets its culture of promoting from within, including a CEO who started as a bus driver. It partners with local high schools and colleges to make bus passes available to students to increase their exposure to transit.
- **San Francisco Bay Area Rapid Transit** works with community partner Cyprus Mandela to identify and train job candidates for hard-to-fill skilled trade positions such as track workers. The program has helped to diversify its workforce.
- **Toronto Transit Commission** hosted a Trades Expo for interested applicants, including on-the-spot interviews with hiring managers.
- **Jacobs** responded quickly to the COVID-19 pandemic by creating a virtual experience to replace its in-person recruiting efforts. Its interactive Virtual Recruitment Booth lets candidates explore information about the company at their own pace in a video game-like atmosphere.
- **Stadler US** has worked to bring the successful dual-education model employed in Switzerland to Salt Lake City. Its Talent Ready Apprenticeship Connection allows students coming out of high school to obtain a debt-free college education while apprenticing at Stadler.
- **Los Angeles Trade-Technical College** helped create a Transportation Youth Academy to introduce middle and high school students to transportation, and specifically to transit. The summer program is conducted in flexible modules.
- **Southeast Transportation Workforce Center** launched a collaborative effort to create a Transportation-STEM Academy for high school students in Memphis. The academy showcases the intersection between transportation and STEM careers, and prepares students to immediately enter the transportation workforce.

Part Three: Sample Materials

Part Three of the guide contains over 250 pages of sample materials related to the Part Two case studies. The materials are organized into seven categories: Apprenticeships, Awareness, Education, Entry-level jobs, Internships, Recruiting and Training.

Each example is linked back to the case study where it originated, so readers can easily navigate from the case studies to the sample materials. Sample materials include:

- A description of a summer intern program, provided by DART
- A work-based learning plan, provided by the Massachusetts Bay Transportation Authority/ Massachusetts DOT
- An employment ad, provided by New Jersey Transit
- A flyer for a transportation expo, provided by Orange County Transportation Authority
- A description of an educational benefit program, provided by Sound Transit
- A feedback form for summer student workers, provided by TransLink
- A flyer for the SPARK program to introduce students to STEM careers, provided by HNTB
- A module on transportation education student engagement, provided by Easterseals
- A slide presentation on a high school internship program, provided by iyai+

All materials are provided as examples for the transit industry, to cultivate and develop workforce readiness initiatives.



Earning While Learning
With the Stadler apprenticeship program you will attain a degree comparable to an applied associates degree, all while getting hands-on manufacturing experience throughout your three year journey - the best part: you earn money along the way.

FIRST YEAR
Overall pay: \$1300 per month
Hourly breakdown: \$10 per hour
Weekly work hours: 35-40 hours every other week

SECOND YEAR
Overall pay: \$1350 per month
Hourly breakdown: \$11.3 per hour
Weekly work hours: 3.5 days

THIRD YEAR
Overall pay: \$1700 per month
Hourly breakdown: \$13 per hour
Weekly work hours: 4 days

NEXT STEPS

- See your CTE coordinator today
- Learn more about our company
- Tour our production facility



SPARK PROGRAM APPLICATION
DEADLINE FOR APPLICATIONS: JANUARY 24, 2020

Name: _____ Grade: _____
Address: _____
City: _____ Zip Code: _____
Student Email: _____

What would you like to learn about the City? : _____

Why do you want to join SPARK?: _____

Student agreement:
I agree to regularly attend SPARK meetings at GALA and contribute to the project team activities.

Student Signature: _____ **Date:** _____

I agree to support this student's regular attendance at SPARK meetings and field trips and consent to the use of photographs/videtape taken during the course of the program for publicity, promotional, and/or educational purposes.

Parent/Guardian Signature: _____ **Date:** _____

For additional information, contact **Adrienne Warlick** (adrienne.warlick@lausd.net) or **Laura Mohr** (lmohr@hntb.com). This program is sponsored by GALA, HNTB and City of Los Angeles, Board of Public Works.



A platform designed with retention and access front of mind

- Learning in bite sized pieces makes 17% more efficient. ¹
- 8 out of 10 Learning & Development microlearning because their learn
- More than 50% of end users sur

Why Mobile?

- In 2019, only ~140M people in th
- While 237M have smartphone ac
- Additionally, 20% of rural populat
- regardless of it being available vi



TTC Apprenticeship Opportunity
in partnership with the TDSB

"FRONT OF THE LINE"
Two Toronto District School Board graduates will have the opportunity to get on board with the TTC as Truck & Coach Technician apprentices.

To qualify you must:

- Complete the requirements for an Ontario Secondary School Diploma by June 30, 2016
- Have a minimum of two automotive/transportation credits
- Be at least 18 years old by December 31, 2016
- Have a valid Class G or G2 driver's license (with a G1 with no demerit points - you must pass the test for a G driver's license within the first six months of employment)
- Have a minimum 70% overall average
- Complete an aptitude test with the TTC

An offer of employment will be made to the two successful candidates. Employment will be conditional upon:

- Satisfactory results of a driver's aptitude check
- Meeting the Ministry of Transportation's requirements to qualify for a Class C license (includes medical examination)
- The TTC will arrange for and pay the cost of this medical examination
- Satisfactory results of a police reference check, and drug screening test

The two successful candidates will start with the TTC as Truck & Coach Technician apprentices in the summer of 2016.



SCHEDULE

WEDNESDAY, JULY 15
BEST DAY OF INTERNSHIP & ORIENTATION

8:30am-12:30pm - Internship Orientation
1:00pm - Virtually meet supervisor, devise schedule and discuss Summer Project

THURSDAY, JULY 30
CAREER PANEL

9:00 AM - 12:00 PM
Learn about their career pathways

SPEAKERS

- Public Outreach Specialist, ASSESSIA**
CofA in May 2016 requiring Public Administration and Community Development. She has been working for the Ontario Ministry of Transportation since 2012.
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CofA in May 2016 requiring Public Administration and Community Development. She has been working for the Ontario Ministry of Transportation since 2012.



Become a MaBSTOA Bus Operator

Apply between August 23 - September 11 to take Exam No. 010

MaBSTOA as a Bus Operator and become an MTA Bus fleet modernization

Salary is \$23.84 per hour for a 40-hour week with salary differentials. Rates are subject to change.

Five benefits package, including:

- Comprehensive medical
- Holiday and leave programs
- Comprehensive dental
- Vision
- Life insurance
- Pension

Commercial Driver License (CDL) valid in New York, with any restrictions that would prevent you from performing driver license valid in New York for a minimum of the past 24 months. Learner Permits with passenger endorsement are not accepted.

For more information, visit www.mta.com or call 1-800-333-3333.



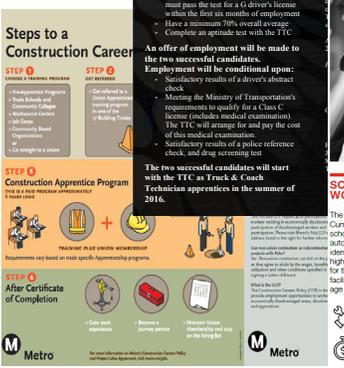
2020 CAREERS IN TRANSPORTATION EXPO

Tuesday, March 10th, 2020
9:00 a.m. - 12:00 p.m.

Public Outreach Specialist, ASSESSIA
CofA in May 2016 requiring Public Administration and Community Development. She has been working for the Ontario Ministry of Transportation since 2012.

Public Outreach Specialist, ASSESSIA
CofA in May 2016 requiring Public Administration and Community Development. She has been working for the Ontario Ministry of Transportation since 2012.

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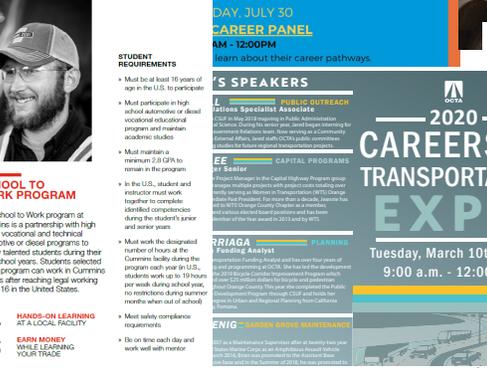
Steps to a Construction Career

STEP 1: Research & Explore
• Explore various career options in the construction industry.
• Research the requirements for each career path.

STEP 2: Prepare & Apply
• Complete the necessary paperwork and applications.
• Prepare for interviews and assessments.

STEP 3: Gain Experience
• Start with an entry-level position or apprenticeship.
• Gain hands-on experience in the field.

STEP 4: Advance & Grow
• Continue to learn and develop skills.
• Seek out opportunities for advancement.



SCHOOL TO WORK PROGRAM

The School to Work program at Cummins is a partnership with high school vocational and technical automotive or diesel programs to provide students during their high school years. Students selected for the program can work in Cummins facilities after reaching legal working age of 16 in the United States.

HANDS-ON LEARNING AT A LOCAL FACILITY

EARN MONEY WHILE LEARNING YOUR TRADE

WORK EXPERIENCE



FEAR NO PHONE

MTA

MTA New York City Transit Examinations Information
180 Livingston Street Lobby, Brooklyn, NY 11211
Monday through Friday, 9 AM to 3 PM (except the following dates)

Applications will not be accepted at the Exam Information period, you may apply online or view the Notice of Examination on the MTA website.

Additional information may be obtained at the following locations:

MTA New York City Transit Examinations Information
180 Livingston Street Lobby, Brooklyn, NY 11211
Monday through Friday, 9 AM to 3 PM (except the following dates)

HOW TO USE THIS DOCUMENT

What are you looking for?

You'll want to read this document differently depending on your goals:

- **To get a sense of everything this document contains**, start by reviewing the **Table of Contents** on page 2 and the **Executive Summary** on page 4.
- **To read an overview of the philosophy** behind starting a workforce readiness program and the recommended steps, read **Part One** beginning on page 16.
- **To read examples** of the kinds of workforce readiness programs that transit agencies and other types of organizations have implemented, start in **Part Two** beginning on page 50. (From the introduction pages of Part Two, you can click a specific organization to jump to that page.)
- **To read this document topically**—for example if you are interested in apprenticeships—you can use the **Index** to find all the information relevant to your interest, including the example materials in **Part Three**.

Note the **BUTTONS** at the bottom of every page, which are essential for navigating to these major sections.

Other ways to find what you need

Part Two of this document contains link boxes that take you to supporting materials related to the case studies. Some of these take you to an external website (indicated by the  symbol). Others lead to either a sidebar in Part One () or a supporting document in Part Three (.

After you have clicked a link to see materials in **Part Three**, you can return to the related case study in Part Two by clicking the red **BUTTON** with the organization's initials at the bottom of the page.

Additionally, the supporting materials in **Part Three** are organized by type (education, internships, etc.) If you would like to see a specific type of material, you can start at the beginning of Part Three and use the links there to jump to a particular topic.

Important information about PDFs

PDF documents can be read inside a window of your internet browser, but you might find it easier to download this document and navigate it using a PDF reader program such as the free [Adobe Acrobat Reader DC](#).

Anytime you see your cursor change to a pointing finger ()—whether over a hyperlink, a link box or a button—that indicates that clicking will bring you to either a new location in the document or an external link. If you are reading in a web browser and want to open an external link in a new window, Ctrl-click (Windows) or -click (Mac) anywhere you see the  symbol.

When you have clicked a link that takes you somewhere else in the document, you can return to where you were previously by choosing View→Page Navigation→Previous View or by using the keyboard shortcut Alt-left arrow key (Windows) or -left arrow key (Mac).

FROM THE TASK FORCE CHAIRS

When we think of workforce readiness, we are reminded of a quote from former President Barack Obama:

“Our nation derives strength from the diversity of its population and from its commitment to equal opportunity for all. We are at our best when we draw on the talents of all parts of our society, and our greatest accomplishments are achieved when diverse perspectives are brought to bear to overcome our greatest challenges.”

— BARACK OBAMA, EXECUTIVE ORDER 13583: ESTABLISHING A COORDINATED GOVERNMENT-WIDE INITIATIVE TO PROMOTE DIVERSITY AND INCLUSION IN THE FEDERAL WORKFORCE

Now more than ever, these words ring true, because investment in a diverse, inclusive, trained and educated workforce is critical for the future of the transportation industry and for our nation's economy and global competitiveness. We were honored to be appointed by former APTA Chair Nuria I. Fernandez to lead one of her key initiatives on workforce readiness: developing a pipeline for high school students into the public transit industry. We led a committed and diverse task force representing transit agencies, business members, academia, industry and non-industry partners who contributed to this initiative.

This guide is designed as an online executive resource, structured to assist organizations with attracting high school students from underserved communities into entry-level transit career opportunities and building a diverse talent pipeline to sustain our industry. The guide also includes a step-by-step outline that provides industry leaders and staff with an overview of the key strategies and actions to develop and promote these programs.

The public transit industry has a key role to play as an essential service during the challenges of the pandemic, as a catalyst for economic recovery, and as a change agent to place social and racial equity and inclusion in the forefront. This guide reinforces the importance of workforce readiness programs as a necessary component of our nation's recovery. As industry leaders, we share a collective responsibility to create and promote opportunities to build a diverse and sustainable future workforce.



Adelee Le Grand
Chair



Tamika White
Co-Chair

March 2021

ACKNOWLEDGMENTS

We would like to acknowledge the following individuals and organizations for their contributions to this guide. Thank you to APTA's executive leadership for your vision and support. Thank you to the APTA Workforce Readiness Task Force for their service and dedication to seeing this document created. Thanks to the representatives of the 35 agencies and organizations who agreed to be interviewed for this guide, several of whom also served on the task force, for so generously sharing their experiences, photos and materials. Finally, we appreciate the individuals who served as testers to review the guide before it was finalized. Thank you all for helping to create this industry resource.

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Paul P. Skoutelas, APTA President and CEO

Special Recognition

The Transit Workforce Readiness Guide was one of the initiatives of former APTA Chair Nuria I. Fernandez, former General Manager/CEO, Santa Clara Valley Transportation Authority. Ms. Fernandez was recently appointed as Acting Administrator, Federal Transit Administration, U.S. Department of Transportation.

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Delivering the Future-Ready Workforce

PART ONE

Creating a Workforce Readiness Program

JUMP TO:

Workforce readiness overview

Implementation steps

Call to action



Courtesy of Southeast Transportation Workforce Center

WORKFORCE READINESS OVERVIEW

Introduction: Investing in our future

The role of transit leaders is to create inspiration for the industry’s future, even in the most challenging times. These leaders understand the importance and benefits of investing in a sustainable workforce—to secure our own future as an industry, as well as to empower others to have a brighter future. These leaders reach out to inform, educate and provide opportunities for those unfamiliar with the breadth of job and career opportunities transit has to offer.

We as an industry need to leverage our partnerships to invest in our youth and young people in our communities, especially those who are underserved and underrepresented, by providing opportunities for respected and well-recognized jobs, related careers, and pathways for growth and advancement.

Now more than ever, our industry must reach out to high school students and young people by introducing them to our industry and its many career choices. In doing so, we build on proven models of sustainable workforce readiness best practices.

Building a new generation of public transportation workforce requires new models, new partnership, new toolkits, and new approaches. This guide builds on the knowledge and experience of countless numbers of our industry partners. It presents the realities and related challenges. It presents tough messages and related metrics. Yet it also provides us with countless examples of cross-industry and cross-partner successes. It gives us diverse examples of successful templates of programs, partnerships, resources and more.

“A sustainable workforce is one that is able to attract a sufficient number of employees with the skills and competencies to effectively carry out their job assignments. ... A sustainable public transportation workforce is one that performs effectively, encourages employees to improve and grow with the organization, relies on effective labor-management partnerships, and renews itself with qualified talent to replace those who choose to leave.”

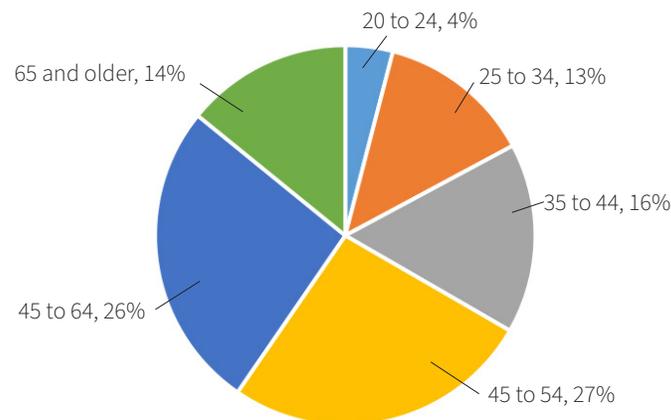
—TCRP REPORT 162: “BUILDING A SUSTAINABLE WORKFORCE IN THE PUBLIC TRANSPORTATION INDUSTRY— A SYSTEMS APPROACH” (2013)

Why focus on workforce readiness?

Workforce readiness is a longstanding concern in the transit industry, largely because of the age of the transit workforce. Due in large part to a hiring boom that took place in the 1970s and '80s, the transit workforce today is older than the national average of U.S. workers.¹

Even within the transportation sector, which itself skews older, transit workers stand out. In 2018, the median age of bus service/urban transit workers was 50.8 years, compared with 44.7 years for transportation and warehousing workers and 42.2 years for workers overall.² Among bus service and urban transit drivers, 40 percent are over the age of 55 (see Figure 1).³

Figure 1: Age of bus service and urban transit drivers (2017), based on BLS data, as analyzed by Cronin and Alexander (2019)

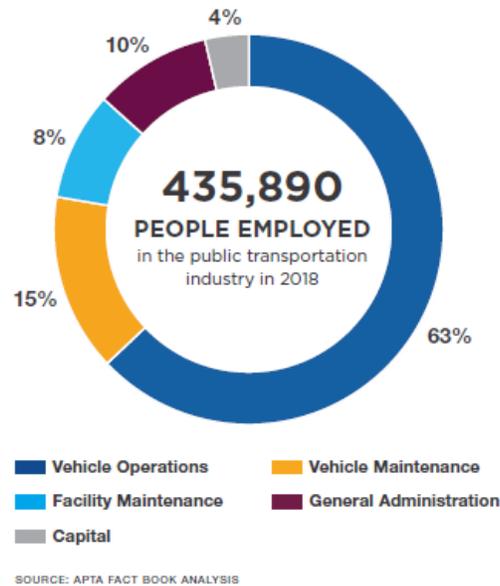


As Jack Clark of the Transportation Learning Center noted in his 2019 testimony to Congress, “Finding both the sheer number of workers required and filling the gap left by retirement of skilled workers concerns all employers. ... The aging workforce issue, widely understood as a crisis for the overall economy, stands as an even larger challenge for transit.”⁴ Clark further noted that “hiring and training a sufficient number of people provides a continuing challenge.”⁵

In addition to filling the large number of workforce exits driven by retirements, transit also needs to fill positions created by an increase in job openings. Xinge Wang of the Transportation Learning Center did an analysis of BLS employment projection data and found that job openings for both bus drivers (9.2 percent) and mechanics (9.4 percent) are expected to grow at a faster rate than U.S. jobs overall (7.4 percent).⁶

The combined impact of significant job growth and higher retirements means transit needed to replace 133 percent of its workforce over the period from 2012 to 2022.⁷ The National Transit Institute estimated that 500,000 transit workers need to be hired and trained in the next decade, 90 percent of whom will be frontline workers.⁸ This is a slightly higher number of frontline workers than would be expected, as about 86 percent of current transit employees work in vehicle operations and maintenance (see Figure 2).⁹ Overall, about 435,890 people work in transit.

Figure 2: Distribution of transit workforce (2020 APTA Fact Book)



Transit vehicle operators experience high rates of turnover, driven by a large number of voluntary separations.¹⁰ This turnover is caused in part by “undesirable working conditions, health and safety concerns, stress dealing with schedules and customers, and wages that have barely kept up with the rate of inflation.”¹¹ Other issues that negatively impact recruiting include a limited labor pool and strict hiring requirements for new operators, such as a five-year clean driving record¹² or the need to work night and weekend shifts.¹³ Workforce issues are thus a consistent and ongoing source of concern for the transit industry.

Joanne Peterson, former chief human capital and development officer at LA Metro, said that agency’s workforce development initiative was in direct response to these concerns. “We had the silver tsunami coming up,” she said. “Seventy percent of the people that work at LA Metro are over the age of 40. And as of today, 28 percent of them are eligible to retire. Forecasting that out, it’s more likely within the next five years that could be closer to 50 percent.”

Two additional issues related to workforce planning are worth noting. First, transit workforce planning is even more complex because, as an industry, transit has underinvested in worker training (spending 0.88 percent of payroll on training vs. the U.S. national average of 2.0 percent).¹⁴ Second, transit agencies are heavily unionized, with about 95 percent of operations and maintenance employees belonging to a union.¹⁵ Both issues present significant challenges, but also opportunities, for the transit industry’s workforce development efforts.

“You tell me what you want for your students, and I’ll tell you how they can do that in transportation”

Stephanie Ivey on the importance of reaching students *and* parents

It’s not just students who never give a thought to transit or transportation as a possible career: Their parents don’t have a clue about the industry either. And that’s a shame, said Stephanie Ivey, director of the [Southeast Transportation Workforce Center](#), because the SETWC’s research has shown that students say their parents have more influence than peers, counselors or teachers when they’re making decisions about their education and careers.

In working with the Girls Experiencing Engineering summer program and securing support for the Transportation-STEM Academy in Memphis, Ivey has learned the importance of correcting the misunderstandings many parents have about what a career in transportation might mean for their children. Here are some of her insights:

- 1. Help them understand the value of the industry.** It’s important to start people thinking about how vital the industry is and how it helps communities and the environment. “No matter what you’re doing in transportation, you’re part of making people’s lives better,” Ivey said.
- 2. Help them understand the breadth of the industry.** Ivey became frustrated listening

to parents push back on the T-STEM concept by saying, “But I want my student to do X,” she said. “Finally I flipped the conversation. I told them, ‘You tell me what you want for your students, and I’ll tell you how they can do that in transportation.’” Ivey shows them the range of options, and also the range of educational requirements, for STEM and transportation jobs.

- 3. Help them understand the value of transportation careers.** Most people are surprised when they find out how much transportation jobs pay, even those that don’t require a four-year degree. And if parents are afraid that getting a certification will limit their child’s educational potential, she explains that they may be able to use that certification to work in transit and put themselves through college while earning \$25 or \$35 an hour, rather than taking a work-study or minimum-wage job completely outside their field. “I actually had parents coming up to me saying, ‘Can you tell me how I can get into that program?’” Ivey said.
- 4. Help them help their children.** Parents don’t understand how much influence they have over their children’s decision-making process about education and careers, Ivey said. It’s important to connect parents to resources about career pathing, apprenticeships and other opportunities, so they can talk to the students about them.

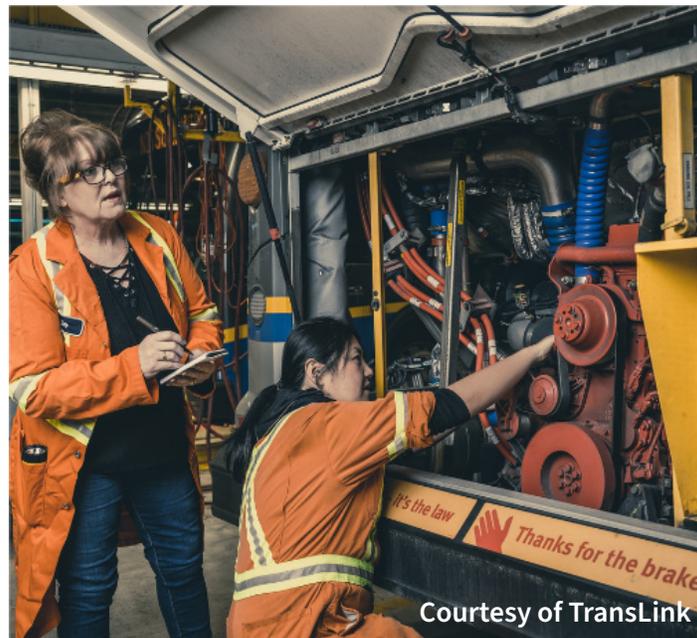
Why focus on high school and young college students?

Tomorrow’s workforce needs to be educated about the great potential for growth and advancement in the transit industry. And today’s transit industry and its technologies call for a nimble workforce whose toolkit includes a range of knowledge, skills and accumulated experiences from customer service to technology applications. Although they have much to learn, transit entrants coming from high school and community colleges also have much to teach as agencies transition to applications of new technologies, new energy sources, new models of service, extended use of social media, and collaborations through nontraditional partnership models.

This report focuses on one promising strategy for beginning to resolve this workforce crisis: focusing transit awareness messages and training on high school and young college students. The reason for this is fourfold:

These students currently have limited awareness of transit as a career field. Although many jobs in the transit sector should be appealing to teenagers and young adults—as they are green jobs on the cutting edge of technology—transit jobs simply aren’t on their radar.

“It’s not even that we have a poor image—although I think that’s true as well—it’s that we have no image at all,” said Beverly Scott, founder of Introducing Youth to American Infrastructure. “When you ask young people if they’ve thought about transit or transportation as a career, on a scale of 1 to 10, we’re not even on the scale.”



Today’s transit industry provides careers in dynamic fields filled with innovation and providing essential services to communities. By reaching students at a young age, agencies may be able to help them form a more up-to-date impression of what transit offers and the career paths it holds. That was one major consideration for Stephanie Ivey, director of the Southeast Transportation Workforce Center, when developing a transportation-focused academy in a local high school.

“The real challenge we ran into was that parents and students—but parents more importantly—did not make a connection between transportation and the STEM careers they were hoping their children would pursue,” she said. Wanting to capitalize on broad existing support for STEM education (science, technology, engineering, mathematics) and to emphasize that transportation is part of that, the organizers named their school T-STEM Academy, with the first T standing for transportation.

Shining a spotlight on other types of jobs is also helpful “We’re very proactive when it comes to job fairs—or at least we were pre-COVID of course,” said Andrew Croke, HR business partner at TransLink. “But we would attend all the job fairs to promote our brand. It wasn’t just positions of maintenance, but it would be positions in finance, IT areas, all the various departments.”

At this age, students often have clearly defined interests but have not yet solidified their future plans.

Teachers at the secondary and postsecondary levels—especially in career and technical education (CTE) programs—tend to be intensely interested in preparing their students for careers. But they don’t understand the career opportunities in transit either, and they rarely think of it. “Just having a STEM program in a school does not in itself familiarize young people with what the careers are,” Scott said. “I’ve had teachers say to me, ‘I’m a wonderful science teacher, engineering teacher, mathematics teacher—but I am not an infrastructure teacher. I’m not a transit teacher. So you have to help me.’ ”

Students with an existing interest in mechanical or electronics programs are often delighted to find that transit is on the cutting edge of these fields and has state-of-the-art facilities. And they are universally surprised by the variety of jobs available. “Teenagers think the transportation industry is driving a bus or driving a train,” said Penny Nickle, project lead of the MBTA Intern Transportation Institute. “They have no idea of the scope of all these different career opportunities. People are always just shocked.”

It’s vital to get this message to students while they are still in high school, if possible, Nickle said. “So much of our industry has an on-the-job training component, but students still need to be prepared. And letting teenagers know what preparations they will need to work in our industry has got to start earlier than college,” she said. “We’re really missing the boat there.”

The ability to hire and train young employees is a win for transit agencies. With budget pressures a common issue, many agencies prefer to hire workers at the entry level when possible, rather than hiring midcareer professionals with higher salary demands. To do that, these agencies train and promote from within to fill management and midlevel positions whenever they can, eventually creating an externally advertised job opening at the lowest level possible.

That approach is also helpful for employee retention, said Christina Murphy, deputy chief of human resources at New Jersey Transit. “We’ve seen a huge shift in outcomes at New Jersey Transit since focusing on creating a learning culture,” Murphy said. “It is a very enriching environment: No matter what job you have, you can make the most of it depending on how far you want to go.”

“We’ve seen a huge shift in outcomes at New Jersey Transit since focusing on creating a learning culture. It is a very enriching environment: No matter what job you have, you can make the most of it depending on how far you want to go.”

CHRISTINA MURPHY, NEW JERSEY TRANSIT

Young students also bring professional agility and a good understanding of many modern technologies. “The industry is doing a lot of work right now around bus electrification and the advent of zero-emission buses, which is coming more rapidly than I think anybody had anticipated,” Clark said. “For young people, digital skills are their native language. They know how to operate in that environment. They need to combine the digital competencies they have with real knowledge about how engines work and what you’re doing to keep things moving, but I think they have a huge advantage on that.”

Another opportunity in hiring young workers is to immerse them in the agency’s vision and mission—and train them in the agency’s technologies—at a young age. Transit technologies are not always taught in vocational programs; since agencies are forced to do much of their own training anyway, it makes sense to focus on hiring for attitude and aptitude, rather than specific technical skill sets.

“We need to be nimble”

King County Metro’s strategy of workforce empowerment

The best ambassadors for reaching the next generation of transit workers are the current generation of transit workers, said Jana Demas, rail deputy director at [King County Metro](#). Metro has found that its most successful recruiting has come from word of mouth and the enthusiasm of individual departments to share their passion about their careers.

In its recent restructuring, Metro hired four human resources business partners whose role is to work with the individual divisions to help them strategize about their workforce needs, essentially decentralizing the effort. Rather than getting bogged down in day-to-day tasks, these HR professionals “can work in partnership with their division leadership to say, ‘What are you trying to achieve, and what’s the best way for us to do that? Where are we headed in the future, and how can we think differently about how our workforce is going to show up to do that?’ ”

One good example is Metro’s Vehicle Maintenance Division, which is “a really cool

spot where there’s a ton of creativity and they do so many different things to keep our system moving,” Demas said. This division has a long history of conducting high school tours and offering external apprenticeships aimed at getting young students excited about the possibilities.

“They have a lot of energy around the work they do. So it’s just about letting those folks be the ones to really shine and say, ‘Come work for us, because this is a great job, and this has been a wonderful career for me.’ ”

It’s important to collect data to back up workforce development decision-making, Demas said, who also noted that the needs and strategies vary by business group and are quickly changing.

“I think sometimes in transit we get stuck in the way things have always been,” she said. “Transit is not going to look the way it does now in 20 years—and maybe even five years with all the COVID stuff accelerating the changes. So we need to be nimble, we need to know our business, and we need to be passionate and enthusiastic about the future.”

“Transit is different,” said Tom Waldron, global director of Transit at HDR. “The clients that we serve—the passenger community, the communities that we operate into and collaborate with—we’re a different animal. We’re not selling machines and widgets. We’re community service-oriented because we are a community service. And I think if we can attract people-oriented individuals, we’ll find the employees we need.”

“We’re not selling machines and widgets. We’re community service-oriented because we are a community service. And I think if we can attract people-oriented individuals, we’ll find the employees we need.”

TOM WALDRON, GLOBAL DIRECTOR OF TRANSIT, HDR

Understanding the potential of a transit

career helps keep students on track. High school students who are not bound for a traditional four-year college—whether because of grades, economic circumstances, involvement with the justice system or other disadvantages—often resign themselves to a future without many opportunities and may drop out of high school. So getting the word out that many good-paying transit careers do not require a bachelor’s degree, and also may offer on-the-job training or tuition reimbursement, can give them the motivation to stay engaged in their education.

“Students are just not aware how good the wages can be in transit. You really can have a middle-class life if you end up in a transit career,” Clark said. “And that’s not true in an awful lot of jobs that young people without a postsecondary education generally have access to.”

Wage information from the Bureau of Labor Statistics shows that many transit-related jobs that don’t require an education beyond a high school diploma have median wages higher than the national average of \$39,810 (see Table 1).¹⁶ These include jobs such as drivers, technicians, and accountants, among others. APTA lists the average compensation of an operating employee in transportation as \$69,797.¹⁷

Table 1: Median wages for transit jobs that require no degree beyond high school

Occupation	Median Wage	Required Training
Bus drivers, transit and intercity	\$42,080	CDL, on-the-job
Diesel service technicians and mechanics	\$48,500	Long-term on-the-job
Payroll and timekeeping clerks	\$40,540	On-the-job
Police and detectives	\$65,170	Moderate-term on-the-job
Railroad workers	\$61,480	Moderate-term on-the-job
Heavy vehicle and mobile equipment service technicians	\$51,590	Long-term on-the-job

Nationally, about 9.1 percent of youth age 16 to 24 are unemployed.¹⁸ Unemployment rates are even higher among black or African American (14.6 percent) as well as Hispanic (11.3 percent) youth.

When LA Metro was developing its Youth Career Experience awareness program, it targeted students at Compton High School, an inner-city school in a neighborhood where the agency was undertaking a major construction project. “We wanted to help students have a better understanding of what exists in the world of

“It’s really just expanding the aperture”

Grads of Life on the basics of opportunity employment

Grads of Life—a nonprofit initiative that helps workplaces create and sustain a more equitable approach to talent management—defines opportunity employment as “a commitment to recruitment, hiring, retention and advancement practices that prioritize equity, opportunity and mobility” for a diverse and traditionally underserved workforce.

“It’s really about creating and thinking about a new talent pipeline,” said Beth Berwick, senior director of influence for the training nonprofit Year Up, which operates Grads of Life. “And it’s not anything radical. ... It’s really just expanding the aperture of how you think about where you get your talent from and how you support them.”

Grads of Life promotes six basic principles of opportunity employment:

1. A culture of inclusion and belonging.

This begins with a commitment from the highest levels of leadership to enact goals for diversity, accountability structures and sufficient resources. Grads of Life also recommends establishing resource groups for employees, ongoing diversity training, clear channels for employee feedback, anonymous mechanisms for reporting microaggressions and harassment, and a flexible holiday policy that’s inclusive of varying cultures.

2. A transparent, data-driven approach to equity. Organizations should set measurable goals for achieving diversity and reporting outcomes, adjust compensation as needed to ensure fair and equitable pay, analyze turnover and benefits usage by race, and conduct employee engagement surveys disaggregated by race and gender.

3. Proactive and intentional recruitment.

Grads of Life recommends forecasting skill and competency needs to determine which roles can be filled with opportunity talent, offering paid work-based experiences with a pathway to full-time employment, using inclusive language in job postings, and intentionally diversifying outreach with community partners.

4. Minimized barriers to accessing roles.

Organizations should eliminate unnecessary degree and experience requirements, simplify the job application process, use standard interview questions and assessments that aim to minimize bias, and conduct training to help hiring teams reduce racial and gender discrimination.

5. Family-sustaining wages and benefits for all employees.

A commitment to providing a living wage includes paying the amount necessary to cover basic needs in the community where the agency operates, offering healthcare coverage with affordable premiums, offering and encouraging the use of paid family leave, providing childcare assistance and wellness programs, and developing partnerships with community resources that provide culturally relevant supports.

6. Systems that support on-the-job success and ongoing professional development.

After a structured onboarding process, companies should provide regular training for employees, encourage career pathway communication with managers, post new roles internally, offer mentorship opportunities, and provide cross-training and tuition assistance to help employees continue to grow and build their skills.

transportation infrastructure, and let them see themselves in that world—other than it’s just noise, or it’s just a train” said Maria Meleandez, deputy executive officer of Next Generation Workforce Programs at LA Metro. That program targeted students with middling grades, around a 2.5 GPA. “They just needed a little push, a little encouragement to get them over that threshold,” Meleandez said.

Monterey-Salinas Transit uses a similar philosophy of student outreach in its largely rural operating area, which includes many non-English-speaking agricultural workers. The agency not only helps the children of these workers understand the opportunities provided by riding transit, but also the job opportunities in transit. “These kids never thought of transit as a job,” said Kelly Halcon, director of human resources/risk management. “Their parents work in the fields, they’re pickers, and they don’t know there are other opportunities out there for them if they want them.”

Why focus on partnerships?

Transit agencies have always existed to serve their communities, in the form of improved mobility, environmental benefits, reduced congestion and increased safety, among other things. But an often-overlooked advantage of having transit in a community is the upward mobility transit careers can provide to the local population.

To ensure that these benefits reach all members of society, and to ensure that the transit workforce reflects the demographics of its surrounding community, many agencies have enlisted the help of a range of partners that provide services to underrepresented minorities, people with disabilities, veterans, women, the underemployed, single parents and many other disadvantaged populations.

Women and minorities continue to be underrepresented in transit. A 2014 analysis by Wang found that women comprise 35 percent of the transit workforce. Women tend to be concentrated in lower-paid positions such as bus operators, meaning that female representation in other transit positions is even lower.¹⁹ Likewise, racial and ethnic diversity in transit positions is more common for lower-paid positions such as bus drivers or vehicle cleaners.²⁰ Executive positions tend to be filled by older, white males.²¹

Reaching underrepresented populations requires agencies to rethink their recruiting approach, and many agencies have found that partners both help them understand their own blind spots and allow them to reach out to people who otherwise might have been overlooked in the recruiting process.

For example, in a pilot program launched at its Ontario, California, bus manufacturing facility, New Flyer set a goal of having 40 percent underserved representation in its workforce. “To do that we had to really begin to look at where we were sourcing, where we recruited people from, looking at developing partners in the areas that we would not have necessarily looked at,” said Janice Harper, executive vice president of Human Resources at New Flyer parent

Reaching underrepresented populations requires agencies to rethink their recruiting approach, and many agencies have found that partners both help them understand their own blind spots and allow them to reach out to people who otherwise might have been overlooked in the recruiting process.

company NFI Group. New Flyer leveraged its partnerships with local social service agencies to not only locate good potential employees but also to better understand what training and personal supports they needed to stay on the job and do their best work.

Many transit agencies that have reached out to community-based and national organizations have been pleasantly surprised to find that their goals align very well.

When developing workforce initiatives at LA Metro, “Sometimes we would come up with ideas and think no one had ever thought of them before. But as we went out there, we found that similar programs were already existing,” Peterson said. “So we had a chance to partner with them and leverage the work they had already done. Once we explained to them what we had to offer, we could really make magic happen.”

Partners also can help with the logistical challenges of hiring underserved populations. Judy Shanley, assistant vice president of Education & Youth Transition at Easterseals, notes that nonprofits like hers, as well as professionals employed in almost every school district, can provide assistance with things like conducting functional assessments to assess a disabled person’s physical capacity, determining what accommodations might be needed in the workplace to allow a disabled person to do the job, adapting training materials to meet universal design standards, and fostering an inclusive workplace environment. Many transit agencies already have relationships with such groups to identify needed accommodations for riders, so this is another way to capitalize on those relationships.

As another example, Bay Area Rapid Transit has partnered with Cypress Mandela, a nonprofit community-based training organization, to develop two transit-based curricula. But Cypress Mandela’s contribution to the partnership goes beyond providing the training; it also looks out for the workers in its programs, follows up with them as they are placed into jobs, and works to resolve any obstacles. “They can do the wraparound services, the retention, check in on housing, transportation, any other challenges that the employee may be facing,” said Ronnie Rhoe, manager of workforce development at BART. “They provide the support we can’t always necessarily do as an employer to enable them to become a successful employee.”



“This is absolutely the place to focus energy”

MBTA and MassDOT find the sweet spot in partnering with vocational schools

The MassDOT/MBTA Intern Transportation Institute began with a vision to create an immersive high school transit program modeled after Transit Tech in New York City. Grant funding and discussions around that ambitious model fell through, but MBTA remained committed to the idea of working with a vocational high school, said Penny Nickle, ITI project lead.

“This idea of workforce readiness—we’ve got to get it on the radar screens of teenagers,” Nickle said. “And letting teenagers know what preparations they will need to work in our industry has got to start earlier than college. We’re really missing the boat there.”

MBTA began the ITI program in partnership with Madison Park Technical Vocational High School, the only CTE high school in Boston with an automotive and electrical program, Nickle said, but it has since expanded to other vocational schools. “These schools were just so excited to have their students participate,” she said. “This is absolutely the place to focus energy on.”

Here are five ways these partnerships have been a success for the various stakeholders:

1. For the transit agency: In most cases, students are in vocational programs because they really enjoy the work and the skills they’re learning, Nickle said, and they come to work with useful skills and a lot of enthusiasm. “They feel like they can take over the world in the sense of their skill-building that they’ve already developed,” she said. “They’re coming with experience. You’re not hiring kids off the street”

2. For existing employees: Many of the employees involved with students in ITI have grown close to them, Nickle said. She recalls one supervisor who literally escorted a former intern to his first day of college. “That idea of mentoring students and sharing their knowledge, it really is a morale-builder for the employees,” she said.

3. For unions: Union leaders initially were resistant to a workforce development program but have come to see that it’s also about creating the next generation of their membership, Nickle said. And she discovered that many unions already had relationships with the vocational high schools, which provided a starting point that made working together easier. When unions start to see the program pay off, “then they can be your advocates to all the other unions,” Nickle said.

4. For the community: “Tons of these students are first generation graduating from high school,” Nickle said, and many others have been touched by addiction. So providing wraparound health, safety and life skills training through the ITI program helps students break out of these cycles. Because Madison Park’s student population is 98 percent minority, giving these students a route into a transit job also helps the agency improve its diversity.

5. For the students: Students get not only job skills but also workforce readiness, mentoring, services—and ultimately supervisors who become advocates for their future. “It’s just been so powerful to see what these kids have gone through and then have this experience and see that light go on for them” that the internship is a path to a stable, good-paying job, Nickle said.

IMPLEMENTATION STEPS

Here are five steps to creating a workforce readiness program to attract and retain younger workers.

Step 1: Identify needs and opportunities

For many agencies, the first stage of developing a workforce readiness program is to fully understand the problems they are trying to solve. For example, agencies may want to estimate how many retirements they might be facing in the next five or 10 years and in what roles, look at retention by job category, determine the current demographic breakdown of employees to uncover representation gaps, and inventory entry-level job descriptions to understand structural barriers that impact recruitment.

Scott says more agencies need to operationalize their workforce development and treat it more like asset management. “If I can count every bridge, bus, truck, and car,” she said, “I have to bring the same intentionality and focus to the human resources side of the house.”

At the Toronto Transit Commission, human resources staff used the transit slowdown caused by the COVID-19 pandemic to accelerate this effort to “get our house in order.”

“I think anecdotally we all kind of know we have issues in terms of a lot of people will be up for retirement in key positions. And for us, we know we have a lot of people who’ve been here their whole career, so that’s going to be a particularly big challenge, knowing that a lot of institutional knowledge is going to walk out the door,” said Matt Hopkins, manager of talent management at TTC. “So we’ve started to look at our demographic breakdown and clean up some of our vacancy reports and some of our position information and things like that to get a better handle on what we’re dealing with.”



Agencies should consider, too, that with rapidly changing technologies—and as the COVID crisis made abundantly clear—things can change very quickly. So when considering future workforce needs, it’s going to be both more useful and more inclusive to think in terms of competencies rather than skills, said Tamika Gunn White, senior organizational development manager at Pinellas Suncoast Transit Authority.

“As an industry we’re probably going to have to comb through our job descriptions and at least add competencies,” White said, including agility, conscientiousness, familiarity with technology, creativity, a good sense of the community and a desire to serve. “That will help us figure out what our needs really are and help us recruit a different type of person. If you’re only looking for specific skills or certain words on a resume, then you might miss a whole lot of people who actually have the competencies and could easily be trained in the skills.”

Many agencies look at the problem in terms of a skills gap, Clark said, but they need to take a more nuanced approach. “If you take bus operators, for example, the prerequisite is they can move a big piece of equipment through traffic safely. That’s a really important skill, but the training period for drivers is not that long,” he said. “But I think most of the people who’ve done this job will tell you that that’s a relatively minor part of what you need to succeed as a bus operator. The set of skills you really need to make this work and to last in the job have an awful lot to do with how you interact with the public, how you keep yourself safe, a lot of what people might characterize as soft skills. Those are what make or break a successful operator.”

Once the agency understands its needs, it can consider various avenues for exposing young people to transit and transit careers through programs that will be a win-win-win—for the agency, student and community. Many agency leaders interviewed suggested starting small when possible to help get initial buy-in from executive leadership, unions, community leaders, parents and students. Once a program has achieved some positive results, those can be publicized and celebrated and the program scaled up as appropriate.



Some opportunities to consider:

Ridership awareness programs are a natural place to target high school students and transit-dependent communities. Many agencies have agreements with educational partners to provide transit passes free to students in exchange for a flat fee from the partner. And improving ridership awareness is vital for increasing mobility for disadvantaged populations, including disabled and low-income populations.

When providing ridership awareness or mobility services, it’s a good fit to talk about mobility in an economic sense as well. Monterey-Salinas Transit does a lot of outreach to various communities to familiarize them with transit, and uses those information sessions as an opportunity to talk about careers at the same time. “It’s just opening young kids’ eyes to not being afraid of public transit, or the stigma that only poor people ride transit,” Halcon said.

Shanley added that many transit agencies already have effective partnerships with organizations that serve disabled students in relation to riding accessibility. “They could build on those to create partnerships for recruitment, retention and advancement,” she said. “I think it’s important.”

Transit agencies would benefit from doing a better job of articulating their value to the community.

Agencies should be intentional about getting involved in community events and programs, including job fairs, community youth programs, volunteer opportunities and more. Agency personnel at these events should be visible to the public, perhaps in uniform, and prepared to articulate the many values of public transit.

“Transit is a major employer and provides a valuable service to our communities,” said Adelee Le Grand, CEO at Hillsborough Area Regional Transit Authority. “But as an industry, we’re introverted. We think we do a great job, and we celebrate with ourselves that we did a great job, but we’re just talking to ourselves. There’s a real opportunity to market the value of the agency and how it supports the community.”

Transit tours can be an eye-opener. Most young people have never thought about what goes on behind the scenes at transit agencies, many agency leaders said, and don’t understand that the industry is on the cutting edge of technology in many ways. “We need to be aware that as a public sector agency, we may be viewed as an old agency, a legacy company,” Hopkins said. “When we promote our brand, we have to focus on what is exciting for young people. We have a lot of really cool stuff going on here that only a handful of places have in North America, or in the world, in terms of our technology and the vehicles we have.”

Teachers and parents are also generally unaware of the appealing aspects of transit agencies as a workplace—but once they understand, they often become partners in helping to guide students toward these careers.

Internships, pre-apprenticeships and apprenticeships serve multiple purposes. Intern and apprentice programs can provide vacation coverage or other practical assistance to transit agencies—but agencies should not think of students as simply junior employees. These programs should also provide professional development, career awareness, an introduction to transit’s mission and other foundational training.

Ideally these early experiences will help students connect what they’re doing in vocational programs to future career possibilities, Nickle said. She has tried to correct the idea that interns should be doing the same types of jobs as entry-level employees. “I’ve had a supervisor say, ‘Well, the first two years you’re in the union, you’re just cleaning up and doing menial jobs, so this is a realistic experience,’ ” she said. “That is just not going to work for this generation. They won’t put up with that. If they see injustices, or they see their talents not being utilized, they just go to the next opportunity.”

Apprenticeships and internships should be conducted with the goal of making the young person a better job candidate in the future, no matter what industry they ultimately end up working in. These experiences provide

“Transit is a major employer and provides a valuable service to our communities. But as an industry, we’re introverted. We think we do a great job, and we celebrate with ourselves that we did a great job, but we’re just talking to ourselves. There’s a real opportunity to market the value of the agency and how it supports the community.”

ADELEE LE GRAND, HILLSBOROUGH AREA REGIONAL TRANSIT AUTHORITY

a first opportunity to go through an interview process, learn about workplace etiquette and expectations, and network with professionals. “We really are able to help them look at their future career goals, and so they’re getting hands-on experience,” said Prem Bajaj, supervisor of workforce development at BART. “They are asked to put together a project to present to senior leaders, so they’re getting visibility. They really enjoy the opportunity. And they have wonderful things to put on their resume.”

The experience of COVID-19 has also made some agencies realize the importance of being able to make such experiences virtual—and the ability to work productively from home may well be a common workplace skill of the future. Another advantage of a virtual program is that agencies can recruit from anywhere, which might be advantageous for a racially homogeneous community that is trying to diversify its workforce.

“It’s not easy, and it’s not coming for free”

Stadler US’s approach to valued apprenticeships

The apprenticeship program being implemented by Stadler US in Salt Lake City blends some of the best aspects of the Swiss educational system with meeting the unique needs of the American workforce. Here are some of the elements the company sees as critical to both expand and replicate its program:

1. Provide a debt-free education. “We have a lot of employees joining us with a college degree, and usually they’re paying their student loans back till the age of 45,” said Martin Ritter, Stadler US CEO. The company’s paid program begins with a dual-enrollment set up during the senior year in high school and continues until the apprentice has achieved an associate’s degree from a local community college.

2. Provide a “stackable” education. It’s important to Stadler that its apprenticeships not be a “dead end” for students. “They can go into engineering or go into more certificates or even go into another degree,” Ritter said. “At the end of the program they can make a salary with us that could feed a

family, but they also could move easily into something else.”

3. Create broadly applicable training. Another item of key importance to Ritter and his team was that students receive not a Stadler-branded certification, but broad skills they could apply to positions at other companies and even in other industries. “That does mean there’s more of a risk of people leaving,” Ritter said. “But our job during those three years that we have the students is to also make sure they understand that this is a good place to work.”

4. Develop the whole person. The purpose of Stadler’s program is not just to develop a future workforce or to enhance recruitment; it’s also designed to help guide teenagers into adulthood. “It’s a very important age for their personal development,” Ritter said, “and we take that seriously, and it’s a part of our program as well to take that into account.”

Ritter emphasizes that a program like the one being implemented in Salt Lake City requires committed partners and a lot of personal engagement. “It’s not easy, and it’s not coming for free,” he said. “It needs resources, focus and dedication. That doesn’t just come on its own.”

Step 2: Form outreach partnerships

Once the agency fully understands its own needs and opportunities, it should consider the needs and opportunities present in the community; the best way to do that, agency leaders say, is through partnerships.

A great place to start is to talk to the partners the agency already has, to see how they can be expanded to include workforce development. It's also valuable to understand—through ridership surveys or other means—the populations the agency currently serves, and to partner with community-based organizations that serve the same populations.

“It's really about creating and advancing some synergies with a cross-section of partners,” Meleandez said. “And that's important because, of course, we impact communities throughout Los Angeles, many of which are

“Where is our partner in this?”

CTA's approach to workforce development

For Chicago Transit Authority, the key to developing a thriving workforce readiness culture for its Second Chance Program and Second Chance Priority Careers Program was to work with expert partners, both inside and outside the agency.

“Our goal was to do our homework,” said Geisha Ester, vice president of Training and Workforce Development. “Let's go to the people who know best. Let's talk with HR and see, ‘Where is the gap at CTA? What positions do we continuously recruit for, where is the huge attrition, what are our pain points?’ ”

After identifying entry-level roles with the most attrition, Ester's staff decided to focus on part-time bus operators and customer service assistants. They spoke to supervisors in those departments to find out the biggest challenges and skills gaps new employees faced and what qualities the most successful employees shared. With the help of those department leads and continued input from HR, they started building out the training objectives that would create the best future candidates.

And because worker training is in part a union function, Ester was very clear in communicating with them that the goal was to build a training for candidates, not employees. “We're just building capacity for candidates to knock on our door to compete for open positions,” she said. “We're building it to the point where they open the door, so we'll have this good employee on the other side.”

The next step was to find an outside partner. City Colleges of Chicago, a system of seven community colleges throughout the metro area, was interested in cooperating to create a program for Customer Service for Transit Professionals. CTA provided work shadowing to help the colleges fully understand the role, as well as the other needs they had for improving the strength of candidates—such as business writing and communication skills—and City Colleges built out the program.

One final leg of the program that is still under development: working more closely with community leaders to identify the needs of those being served and figuring out how to align those with the agency's own needs.

At every step of the process, Ester said, “We step back and say, ‘OK, where is our partner in this?’ ”

underserved. It's really important that we start looking at this through those partners, and strategically engaging those partners, to reach the constituents in those communities." LA Metro meets with its partners on a quarterly basis to share information and resources, and to seek opportunities to engage with new populations.

Here are some categories of partnership to consider:

Educational. Vocational programs at the high school and community college level are great opportunities to find students with an interest in the skills needed by transit agencies, as well as to create training programs more specific to agency needs.

"Because of the virtue of what we do as a community college and the multitude of programs, we have facilities, we have faculty that are experts, and we tend to have a connection with feeder high schools that are going to bring students to our campus," said Jess Guerra, executive director of the Transportation Workforce Institute at Los Angeles Trade-Technical College (LATTC). "And there are certain things—for instance technology that may be used in transit—that the community colleges may not have or can benefit from exposing students to the latest and greatest. So it's a very synergistic partnership."

LATTC also provides a dual-enrollment curriculum to students at four Los Angeles County high schools.

Agencies may also want to partner with educational institutions to provide transit passes, offer tours, share job postings and offer career-event speakers.

Community-based organizations (CBOs).

Local organizations that provide services to the communities being served by transit offer another synergistic partnership opportunity. These organizations know their clientele and can identify good potential employees or interns that the transit agency may have trouble finding on its own.

BART's partnerships with CBOs yield more than just referrals and recruiting, Rhoe said. For the agency's training partnership with Cypress Mandela, "we looked around our surrounding counties for programs that were longstanding, had credibility, and had placement results," he said. "We just leveraged their existing pre-apprenticeship program to introduce a short-term BART training."

BART's summer interns are recruited from CBOs as well. The CBOs screen the students, act as the employer of record for the summer and provide a stipend. BART provides the placement, mentoring supervisors and work experience.

National nonprofits. National organizations are frequently willing to form mutually beneficial partnerships with employers, particularly if the nonprofit has a local office in the community. Easterseals, for example, has more than 60 affiliates, many of which are eager to work with employers to provide work placement and volunteer opportunities for people receiving services.

Among the national nonprofits that transit agencies have partnered with are the Conference of Minority Transportation Officials (COMTO), the Women's Transportation Seminar, the United Way and Girls Inc.

"It's really about creating and advancing some synergies with a cross-section of partners. ... It's really important that we start looking at this through those partners, and strategically engaging those partners, to reach the constituents in those communities."

MARIA G. MELEANDEZ, DEPUTY EXECUTIVE OFFICER, NEXT GENERATION WORKFORCE PROGRAMS

New Flyer has found its partnership with the Transportation Diversity Council (TDC) particularly helpful in its outreach efforts. “One key is that we don’t have the expertise or skill set internally to go out and network with the underserved populations like TDC can do for us,” said Herb Clark, vice president, Human Resources, New Flyer. “They’re talking to veterans, homeless people, previously incarcerated people, single parents, people who have been on unemployment for a long period of time. What TDC brought to the table for us as our partner was the ability to identify really good people that have experienced unfortunate circumstances.”



Step 3: Develop and implement programs

Once an agency and its partners have identified a workforce readiness program that they’re interested in starting, they need to develop and implement the program carefully to give it the best chance of success. Consider the following recommendations from interviewees:

Identify as many stakeholders as possible, and turn them into advocates. Enthusiastic buy-in from stakeholders was crucial to the creation of the Transportation-STEM Academy, Ivey said. “People say this all the time, but you have to be really intentional about buy-in and making sure everybody has a stake in what’s happening,” she said. “We had so many partners at the table for everything we did, so if there was ever a stumbling block, there were people there that could help us get over that hurdle.”

Involve existing employees, and train them to be mentors. Employees respond better to hosting and training interns if they are tapped to share their own expertise, transit leaders said. And supervising interns can be a learning experience for employees as well. “People have good intentions and they know their work, but they may not have the abilities necessary to mentor in the manner that we need for our interns,” said Geisha Ester, vice president of Training and Workforce Development at Chicago Transit Authority. “We work with our mentors to develop them and give them tools and skills, so our program is not just about the intern; it’s about the mentor as well.”

Remember the goals of the program. Ultimately, workforce development is not about cheap labor, or even recruiting future employees, said Charlotte Thalhammer, marketing and communication manager at Stadler US. “We would recommend companies really view it as an opportunity to invest into their own futures and into the kind of labor pool that the entire industry is going to have.” Added Meleandez: “It’s about exposure and passion. If that’s at Metro and within the industry, fantastic. But if that’s not the case and their passion lies elsewhere, we want to help foster that growth as well.”

Start by educating parents and teachers. Parents and the other adults in students' lives can be a stumbling block for workforce readiness programs if they don't understand the value of transit and the opportunities it provides. It helps to promote the value of the industry, talk about the rapidly changing technologies, and explain about the compensation relative to other jobs that don't require a four-year degree. Parents are an especially crucial partner when recruiting students or young adults with disabilities, Shanley said. "We always talk about self-determination and self-actualization, where we want the student to make the informed choice, but families have a big influence," she said. "The family is often a critical decision-maker in the career path for students."

“This isn’t an approach you can impose”

Long Beach’s creation of a unique transportation–education partnership

The [Academy for Global Logistics](#) (AGL), the transportation-themed “pathway” offered at Juan Rodriguez Cabrillo High School in Long Beach, gives students the chance to attend a campus within a campus where the core curriculum has a transportation logistics theme. The Long Beach Unified School District has used the [career pathway curriculum model](#) for almost two decades, and the port partnership began in 2016. Cabrillo students get access to not just the curriculum but also to work-based learning, technology, internships, work readiness, public speaking opportunities and more.

One of AGL’s partners is the Center for International Trade and Transportation at California State University, Long Beach. Here CITT executive director Tom O’Brien offers his advice for launching such an ambitious educational partnership:

1. Find what the community values. “This isn’t an approach you can impose,” O’Brien said. “It has to come from the students and the parents themselves.” Part of selling the story in Long Beach was helping these stakeholders understand the varied work done at the port and the career opportunities available.

2. Build on existing programs. At Cabrillo High School, the pathways system and the [linked learning](#) approach were already well-developed and well-understood when the Port of Long Beach got involved. No one had to build a new program from scratch.

3. Connect the program to the workplace. It’s important for students in the program to visit the workplace in person to learn about the wide range of careers available, see them in action and get some firsthand experience. Like transit, logistics suffers from a perception that driving is the only viable career.

4. Communicate with the people who influence students. It’s important not just that students understand the value of the program, but also that parents, teachers and other influential people do. Incoming ninth-graders, O’Brien said, are unlikely to be able to choose a career pathway without help. “They need guidance and feedback from people who are trusted,” O’Brien said.

5. Set the expectations correctly. The value of a high school program lies largely in raising awareness and providing context for learning opportunities, O’Brien said, not necessarily in creating an immediate funnel into the workplace. He advises designing the program with realistic goals and thinking long-term.

Focus on awareness. Because awareness of transit and transit careers is such a fundamental obstacle to recruiting, internships and other programs aimed at this age group should focus on exposing students to the big-picture mission of the transit agency, as well as its full range of services and career opportunities. When students were surveyed after LATTC’s Transportation Youth Academy, a summer program, 82 percent said what they had learned made a transit career either a little or a lot more appealing, and 79 percent said they might pursue a career in transit.

Provide transferable skills. It’s helpful when developing a training program to think about teaching a broad set of skills, rather than agency-specific ones, since that is most useful to students—and most appealing to their teachers and parents. “We try to provide skills that are cross-cutting,” said Tom O’Brien, executive director of the Center for International Trade and Transportation. “We know people are always moving in and out of traditional career pathways; there are multiple on-ramps and off-ramps.” Added Scott: “We do a lot of cannibalizing across the sector, stealing each other’s workers. But it should not be a competition. We have the opportunity to lift up the transportation industry as a whole.”

Step 4: Close the loop with entry-level jobs

If a workforce readiness program is successful, it will begin to create a pool of potential workers who not only have some awareness and experience with the agency or industry, but who are also already known quantities for hiring managers. But sometimes that’s where those students find a dead end: There just isn’t an entry-level job to offer.

The issue has gotten worse in the past decade, Peterson said. “My instincts tell me that in the Great Recession, when all of us were asked to make cuts, no one cut their horsepower,” she said. “They didn’t cut their managers and the folks they felt they needed to hang onto. But they cut the entry-level positions, and of course those have never been fully restored.”

Nickle agrees that the issue is agency human capital budgets. “We finally have kids now that started on the program, and they’re getting their associate’s degrees in automotive or computer, and they’re returning to us, saying, ‘Where are the jobs?’ ” she said. “This is something our industry definitely needs to take a look at. Here we already have an established relationship with this person, we know what their work ethic is, so how do we bring them back into the organization?”

One solution is to develop strong internal training programs so higher-level positions can be filled from within, letting everyone in the agency move up and eventually creating job openings at the frontline level, as described in Step 5. Another is to rewrite entry-level job descriptions to focus on competencies rather than skills, as mentioned in Step 1.

But a third strategy many transit agencies are exploring is to create even lower-level jobs with clear pathways into entry-level positions that currently have structural barriers, such as the requirement for a CDL. “What we’ve talked about is looking at our current frontline jobs and figuring out one step below that,” White said. “How could you implement something a little bit less than what our full-time frontline people are doing? Maybe it’s starting out just sweeping out the maintenance bay, and then you slowly get more and more and more responsibility as you come of age.”

“We look at all the different ways one can be educated”

How New Jersey Transit markets itself to the future transit workforce

Transit may not be seen by young people as a glamorous job, said Christina Murphy, deputy chief of Human Resources at [New Jersey Transit](#), but it does have many strong selling points that can be leveraged to appeal to the next generation of workers. “You’re not going to become rich working at New Jersey Transit, and that’s not why people come here,” she said. “But it can be a very enriching environment no matter what job you have, and you can make the most of it to go as far as you want to go.”

Here are four key messages the agency strives to communicate to potential workers:

1. Technologies of the future. One of the challenges of engaging with high school vocational programs, Murphy said, is that they don’t often teach diesel education. “A lot of these programs are moving their folks into alternative technologies, like electronics, AI, more computer-based technologies,” she said. “But we as an agency also see these technologies as being the future, so I think we’re going to see a renaissance in us going back to those programs to tap into that. As investments are made, we will have the newer technology that will meet their career development needs and also their interests.”

2. Opportunities for education. Although the agency has a tuition reimbursement program, it also has a more holistic way of thinking about education. “We look at all the different ways one can be educated,” Murphy said, “whether it’s on-the-job training, a technical

program, a certificate program. It’s not always a college class.” New Jersey Transit also provides professional development to employees, including helping them prepare for interviews or develop their resumes.

3. Mobility within the agency. “Our secret sauce at New Jersey Transit is a very strong culture of promoting from within,” Murphy said. The agency also prides itself on providing opportunities for employees to move across lines of business, especially since tight budgets often restrict pay increases within the same job classification. As part of this effort, the agency offers “mobility assignments,” which are short-term placements in new departments to allow people to experience new jobs and gain new skills. The internal applicant tracking system was recently upgraded, making the process easier and giving employees more time to consider open positions. “We have hundreds of people at any given time in the organization looking to see what is posted,” Murphy said. “And it’s really up to them and what they’re curious to tackle. But we depend on internal movement in order to keep the organization moving and growing.”

4. A higher purpose. Employees quickly come to see that what they do as part of a public transit agency makes a big difference to their state, Murphy said. “They really do like seeing the impact of their work,” she said. “They like to see that they’re changing the way New Jerseyans are experiencing transportation, that we’re helping people get to work, school, doctor appointments, family events, and that we can truly connect the moments of their life by providing a vital lifeline.”



In the COVID pandemic of 2020, TriMet in Portland, Oregon, created a new classification of entry-level workers to wipe down buses. They are limited-term positions but are open to anyone with a driver's license, with no CDL requirement. "When talking with many of those cleaners, they say, 'Gosh, TriMet's a great place to work, and I'm hoping there are other opportunities I can move into,'" said Angela Burns-Brown, director of talent management. "We're hoping that would be the case as well."

Sound Transit in Seattle has been working to increase its number of entry-level roles while simultaneously providing a path for those employees to earn a low-cost bachelor's degree and also providing competency-based leadership training. "We've worked with our leadership to think about how those beginning roles need to be structured so that they're meaningful jobs, that they actually lead up career ladders inside our organization," said Julie Honeywell, chief human resources officer. "When you look at something like engineering, you really have to look at what is that engineering role that's right out of college, and then you work forward on their path up through getting their engineering training certification, all the way through their PE. But you also go backward in creating internships so that we're building good talent pools, and all the way back to our work to expose middle and high school students that this might be a career path."

Step 5: Evaluate hiring, onboarding and retention

To meet the needs and expectations of younger workers, the hiring and onboarding processes need to be drastically streamlined, Scott said. "Anything archaic, the traditional ways we've done things, just don't work for this generation," she said. "We have to deconstruct the recruiting and onboarding process. This is hard stuff, because there are certain things that we can't throw away. But everything that we can do to streamline, we need to be doing."

“Slow and steady is a tried-and-true formula”

Agency approaches to engaging unions in workforce development

About 80 percent of the North American transit workforce is unionized, according to Beverly Scott, founder of [iyai+](#), so unions will almost always need to be at the table when considering workforce readiness initiatives. “If you think you’re going to do this and not wind up dealing with collective bargaining agreements and seriously putting labor at the table, then you’re going to keep having the same conversation forever,” Scott said.

Here are some best practices from various transit agencies for engaging unions in these issues:

- 1. Start with engagement.** When trying to implement a workforce change, include union members and leaders on the decision committee—and expect plenty of engagement, negotiation and collaboration on what the final initiative will look like.
- 2. Test first.** “You can have wonderful, big dreams” one workforce development professional said, “but in order to get union buy-in, it’s helpful to be able to show that an initiative works before widespread implementation. Slow and steady is a tried-and-true formula.” For example, launch programs affecting just a limited group of employees or just a certain job classification. Once a program has been successful on a small scale, then try to get union buy-in for expansion.
- 3. Offer a bonus for workers who train others.** One way to help get apprentices and young workers through the door is to acknowledge that they may create a bit of extra work for existing union employees. Agencies can offset this by offering an increase in pay for employees whose duties have expanded to include training.
- 4. Involve union members in mentoring.** Workforce development can seem threatening to unions in theory, but once these apprentices, interns or young employees get to the shop floor, union employees tend to bond with them. Involve unions and union members in mentoring young people, and invite them to share in the celebrations of their successes.
- 5. Recognize that union members are a link to the community.** Union members often are more aware than transit management about the trends in their trade, so they can serve as effective headhunters. A few agencies have had great success asking unions to get involved in recruiting.
- 6. Build on existing partnerships.** Sometimes unions already have relationships with vocational schools, which provides another opening for transit agencies to create opportunities that benefit all three parties. “Partnering with those existing programs really made it easy for us to set the groundwork [for an internship program], because getting the union’s initial buy-in was critical,” one transit leader said.

Candidates expect a seamless experience when applying for a job, and they expect to be able to apply online, or even via a mobile device. They also expect the process to move rapidly: A 2019 survey by PricewaterhouseCoopers²² found that half of job candidates were more likely to turn down a job after a frustrating hiring experience, including a process that lasts longer than a month or one in which candidates don't receive timely updates from an employer.

Many transit agencies have experimented with ways to make hiring simpler, including bringing tablet computers to job fairs so interested students can fill out their application online with the assistance of hiring managers. Several agencies also say they conduct job interviews at this type of event, both to give students the experience and to save time in the hiring process.



Here are some of agencies' best practices for onboarding young employees, developing a culture that embraces them, and creating better retention for the whole organization.

Onboarding should connect employees with the agency's culture. Before the pandemic, LA Metro would hold onboarding events twice a month for cohorts of several dozen new employees. These were high-energy events with icebreakers, speakers and music.

"The focus is to really connect people with the vision, mission and values of the organization. We talk about how we make a difference for LA County and how they can contribute," Peterson said. "We really try to ground them and get them excited about a career here, and how through their work they could make a difference in the community that they probably were born and raised in. We ultimately want them to be recruiters for us. We hope they'll have a good experience and tell their friends and family."

Ask all new employees about their needs in a non-stigmatizing way. Disadvantaged employees, including people with disabilities, may need accommodations in order to do their jobs well. But agencies should not single anyone out; they should have frank conversations with all employees during onboarding to see if they have special needs.

“Maybe they have low vision and they need a special light. They may have a learning disability and need materials on audio instead of text. They may have mobility challenges or flexibility challenges, and so they can’t reach a coffee maker, and so maybe that coffee maker can be put on a different shelf. It’s just simple things like that,” Shanley said. “Employers think accommodations in the workplace are hugely expensive, but actually there’s data to suggest that the average accommodation is less than \$500. Finding out during onboarding is important.”

Assign young employees a mentor or a buddy. Young employees may have more initial obstacles to employment than a midlevel hire, including professional issues such as knowing the difference between an internship and a full-time job, understanding how to dress, navigating various benefits, and understanding how to interact with supervisors and co-workers. They might also have life-skills needs, such as understanding how to handle money or obtain housing. Having a mentor or buddy for the first six months or so on a new job gives new employees someone besides their supervisor to help them navigate their new role and go to with questions.

“We don’t know what we don’t know”

New Flyer’s multipronged approach to creating an inclusive workforce

New Flyer’s Community Benefits Framework, an action plan and mission statement about the company’s commitment to inclusive employment, was written to consider the company’s workforce development needs, the needs of employers and recruits, and the needs of the surrounding communities, said Lindy Norris, director of Marketing and Public Affairs. Here’s how the company made sure its workforce commitment was a win-win-win:

1. Needs assessment. The company began by first taking a realistic look at its own workforce needs, said Janice Harper, executive vice president of Human Resources at NFI Group. “It really comes down to what’s practical and makes sense for your organization,” she said. “What are the gaps? Where are the concerns? Is it workforce development because you have a lot of people retiring? Are there going to be succession issues? What jobs are you looking to replenish?”

2. Employee challenges. New Flyer also assessed the state of its workforce to determine if there were employee satisfaction or turnover issues, and it surveyed employees to determine what they needed. This informed the company as it set its core training standards and determined what kind of skills it needed to teach in its pre-apprenticeship programs, Harper said. “We made sure everyone had a foundation in everything from math and measurement to tool use to job relations and dealing with difficult situations,” Harper said. “A byproduct of identifying these skill sets was that our entire workforce leveled up.”

3. Community partnerships. A wide variety of partnerships—including the Transportation Diversity Council, the Minnesota Job Skills Partnership, and the Anniston Soup Bowl, among many others—provide a multipronged approach, Norris said. “We know we may have blinders in some areas; we don’t know what we don’t know,” she said. “So we work closely with different organizations to make sure we’re continually investing in doing the right thing for the community and our people.”

Some transit agencies also work with community partners to provide these kinds of wraparound services for young employees.

Create a culture of inclusiveness. Agency-wide diversity training can help prepare existing employees for coming changes to the workplace, as can involving them as mentors or advocates for young workers. Agency leaders can set the tone in creating a culture where learning is encouraged and all people are welcome. At LA Metro, “It’s a testament to leadership that if a manager or director has a young person in their department, they know they have folks they can contact for additional support or questions,” Meleandez said. “It’s really all hands on deck to support these young people. It’s not a formalized program, but it’s more of a cultural shift that’s happened at Metro. We all understand the implications of ‘We’re going to have younger people join us, and we need them, and so how can we rally together and support them with the appropriate resources?’ ”

Implement bonuses and referral programs. Monterey-Salinas Transit used to lose a lot of bus drivers in their first two years of employment, which meant that the agency lost the investment it had put into training them. So it created a bonus structure to incentivize them at regular intervals to stay on the job through that critical period. “The hours can be difficult at first. You’re low on seniority, you have to work holidays, and that can be really rough,” Halcon said. “But if they look at it like, ‘Hey, I’m going to get a chunk of money at the end of this,’ it helps get them through those years until they have more seniority.”

Employee referral bonuses, too, are a useful recruiting tool, since employees can be great ambassadors for the transit agency and know what kind of people would be a good fit.



Understand the expectations of young employees. The days of most workers staying with the same employer for their entire career are gone, so agencies should understand that job stability is no longer the draw it once was. Instead, students are looking for jobs that offer work-life balance, flexible schedules, inclusion, opportunities for advancement, satisfying work, autonomy, and good pay and benefits. “There are no commitments,” Scott said. “If they don’t like what exists, they move on.”

PricewaterhouseCoopers²³ determined that job seekers would be willing to give up about 12 percent of their salary on average in exchange for training and greater work flexibility.

Engage with employees throughout their career. In many cases, Le Grand said, young workers change jobs because they feel out of the loop, unnoticed or that their careers have stalled. “In my experience, most of the time when people leave it’s because the manager thought they knew what the employee was looking for but never stopped to ask them. They feel disconnected,” she said. “You have to ensure you’re having frequent, open conversations where there’s more listening than talking so you can be responsive and not just project.” These conversations can lead to new assignments, point people to education or training opportunities, and just help employees feel appreciated.



Emphasize internal promotion. The opportunity to see a career pathway and move along it is a great motivator to keep employees engaged and happy in their jobs, many transit agencies said. At New Jersey Transit, employees can ask to be temporarily assigned to other work areas they’re interested in, which gives them some experience to add to their resume should a position become available in that area. Human resources staff also offer resume and interview training to employees who want it, to help them compete for different jobs within the agency.

Similarly, BART has an upgrade program that lets employees in non-skilled trades train to move into skilled trades classifications. The agency provides on-the-job training and classroom training in partnership with local community colleges.

Update your performance evaluations. Talking about career ladders and the employee’s goals should be part of regular performance evaluations, many agencies said. Monterey-Salinas Transit developed its revamped “goals and expectations” form with input from employees. “Each department came up with goals that aligned with the strategic goals our board has set,” Halcon said. “When individuals are meeting expectations, we talk to them about their individual goals and the skills, knowledge and abilities that get them where they want to go. We look at where people feel they might want more assistance or mentoring.”

Make training a budget priority. Skills training has to be included in agencies’ capital budgets, said Jack Clark of the Transportation Learning Center. “If the problem remains lack of funding, you’re never going to be able to solve the problem,” he said. “There’s no magic solution on this. Transit has suffered under this delusion that all we have to do is figure out how we hire the right people and they come in with all the skills and magically our skill gap disappears. That’s never going to happen. Training has to be part of the solution, and you have to figure out how that training gets funded.”

Some agencies have had human resources staff teach professional development courses as a first step in developing a training program, and then expanded it from there.



“People don’t want to feel diminished”

Easterseals on reaching students with disabilities

People with disabilities are underrepresented in transportation careers, said Judy Shanley, assistant vice president of Education & Youth Transition at Easterseals. She provided several strategies to find qualified workers within this population and to market to them effectively:

1. Make connections. There are at least three avenues for locating qualified workers with disabilities, Shanley said. First are transition professionals or vocational rehabilitation professionals within school districts, who are tasked with ensuring that students with disabilities have post-high-school plans. Second are vocational rehabilitation professionals, who work with young adults who have aged out of the school system, including those who may have become disabled later in life and did not receive services in a K-12 setting. Third are human services organizations, including Easterseals and Goodwill, for example. “It wouldn’t be uncommon for a transit agency to link up with one of these three entities to talk about transportation service provision,” Shanley said, “and in the context of that, it would make sense if they also talked about careers.”

2. Reach out to families. Whether at career fairs, in promotional materials, or in one-on-one discussions with school districts or service providers, it’s helpful to engage with families of students with disabilities, Shanley said. “We always talk about self-determination and self-actualization, where we want the student to make the informed choice,” she said, “but for students with disabilities, the family can be a critical decision-maker in the career path.”

3. Match job descriptions to assessments.

Students working with transition or vocational rehabilitation professionals often will have completed a functional assessment to compile data on their physical capacity and manual dexterity, for example. An HR transit employee or consultant familiar with the ADA requirements and the principles of universal design should look at these assessments and determine if there are positions within the agency that could be made accessible. “Many transit agency folks don’t have experience in human services, and they may not even realize the capacity of an individual to do a certain job,” Shanley said.

4. Consider targeted volunteering and internships.

Vocational education for students with disabilities should ideally incorporate both classroom training and on-the-job learning, both to help students find their passion and to help employers understand what’s possible. “It’s a great idea to try an on-the-job experience or an internship—or volunteer programs are also an amazing way for students to learn about various careers,” Shanley said.

5. Create a welcoming and inclusive environment.

Materials aimed at students and families should feature inclusive imagery showing people with disabilities in roles throughout the workplace, Shanley said. Employers should not see accommodations as diminishing the capacity of people with disabilities to contribute. “You want to acknowledge the skills and assets that the individual could bring, and that’s always important to remember,” she said. “People don’t want to feel diminished or marginalized in their profession. They want opportunities just like everybody else.”

Create a culture of learning. Programs such as free training, leadership classes, tuition reimbursement, and the opportunity to attend industry conferences are all valuable benefits for young people. For those who are entering the workforce with a high school diploma because they can't afford college, the opportunity to achieve a degree with some or all of the costs reimbursed is a particularly important selling point for a transit job. "I just think it's really important that we foster ongoing education for individuals so they don't feel that they're stuck in one position," Halcon said. "We want them to know there's always opportunity. If your stumbling block is money, we'll give it to you."

Halcon has seen another benefit of training, which is that it creates comradery among employees. "There's a bond that forms when you're learning together," she said. "People who were training to be bus drivers together 25 years ago still go golfing together. Our mechanics have that same type of bond. They're a shop and they're a team."

Guerra says such programs are crucial for retention. "People have to see that there's upward mobility, that there's a career path they can take," he said. "That is very attractive to individuals coming into the industry and a benefit for the transit industry itself."



CALL TO ACTION

Developing a workforce readiness program can be a huge undertaking, but it also can begin incrementally, with the agency building on each of its successes. The techniques employed by the organizations interviewed for this report—assessing needs and opportunities, reaching out to partners, developing awareness programs, focusing on hiring at the entry level, developing employees through training and educational opportunities, and improving hiring practices and retention—have produced tangible benefits for the agencies, their employees, and the surrounding communities alike. Many more examples of these are detailed in the next part of this document.

"For those that we work with and those that we network with, a lot of us ended up in transit roles by accident, after we had had jobs and careers at other places," White said. "And so we realize now that we have to be really intentional, because we're going to have to compete for high-quality talent."

A few of the transit agency leaders interviewed did have a more intentional route into transit, however—because they themselves benefited from youth awareness or internship programs at a young age. One is Alva Carrasco, president of Latinos In Transit. Carrasco worked as a student intern at the Big Blue Bus in Santa Monica at the age of 14 and returned there years later to begin her professional career. Her intern experience introduced her to a world she would not otherwise have encountered.

“Never in a million years would I have stepped into that office, unless I had to buy a bus pass. And being introduced to the people there, and what is done there, I got an appreciation for, ‘Oh, this is a nice office environment,’ and, ‘There’s a customer service rep providing information to the public,’ ” she said. “I know in my heart that had I never stepped foot in that office as a kid, I would not be here today.”

Visionary transit leaders have a clear call to action: to reach out to young people to introduce them to the many careers available in the transit industry. Generation Z has many assets to bring to the future transit workforce, with skills such as adaptability, willingness to learn and technical savvy that can help to advance the industry. And they are likely to find great rewards in transit careers, too.

“When you take these careers up, it is some of the most satisfying work that you will do over your entire lifetime,” Scott said. “And so we should care. We should want to invest.”

Visionary transit leaders have a clear call to action: to reach out to young people to introduce them to the many careers available in the transit industry. Generation Z has many assets to bring to the future transit workforce, with skills such as adaptability, willingness to learn and technical savvy that can help to advance the industry. And they are likely to find great rewards in transit careers, too.

End notes

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PART TWO

Case Studies

JUMP TO:

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[Private sector](#)

[Transit agencies](#)

[See next page for links to organizations](#)



Academic institutions

Center for International Trade and Transportation

Morgan State University Transportation and Urban Infrastructure Studies

Northeast Transportation Workforce Center

Southeast Transportation Workforce Center

Transportation Workforce Institute (Los Angeles Trade-Technical College)

Partners

Easterseals

Introducing Youth to American Infrastructure

Latinos In Transit

Transportation Learning Center

Year Up and Grads of Life

Private sector

Alstom

Cummins

Halmar International

HDR

HNTB

Jacobs

New Flyer of America

Stadler US

Transit agencies

Champaign-Urbana Mass Transit District

Chicago Transit Authority

Dallas Area Rapid Transit

King County Metro

Los Angeles County Metropolitan Transportation Authority

Massachusetts Bay Transportation Authority

METRO Regional Transit Authority (Akron, Ohio)

Monterey-Salinas Transit

MTA New York City Transit

New Jersey Transit

Orange County Transportation Authority

Pierce Transit

San Francisco Bay Area Rapid Transit

Sound Transit (Seattle)

Toronto Transit Commission

TransLink (Vancouver, British Columbia)

TriMet (Portland, Oregon)

ACADEMIC INSTITUTIONS

Center for International Trade and Transportation (Long Beach, California)



Housed at California State University, Long Beach, the CITT fulfills its mission to deliver logistics education, research and outreach in part by participating in unique and innovative training programs for high school students and entry-level employees.

Interviewee: Tom O'Brien, executive director

Academy of Global Logistics

The Port of Long Beach is the second-busiest container port in the United States after the adjoining Port of Los Angeles; together they employ more than 845,000 people. In the shadow of this huge industrial complex is Juan Rodriguez Cabrillo High School, a campus where 82 percent of the students are considered economically disadvantaged and 99 percent are racial minorities.

As part of the Long Beach Unified School District, Cabrillo students benefit from a [linked learning](#) approach to curriculum development; Cabrillo provides a four-year pathway called the Port of Long Beach Academy of Global Logistics (AGL) that combines an academic curriculum with training and information to support career development in the logistics industry.

“It’s got all the hallmarks of a traditional pathways program sequence: curriculum, development of not only content-based knowledge of logistics but other competencies, including access to technology,” O’Brien said. “There’s a work-based learning component; students become eligible for internships; there are public speaking activities. And I think there has been a real impact.”

The school district has used the pathway model in its high schools for almost two decades, O’Brien said, “but when the port got involved and it brought financial sponsorship it really, I think, was a game-changer.” Among other things, the port has donated a shipping container—part inspiration for students and part learning tool—and helped to build out AGL branding in that portion of the school, so it feels like a campus within a campus.

“It’s helped to raise Cabrillo’s profile in the community,” O’Brien said. Students throughout the district can petition to attend, and the program attracts about 200 students each year on a campus of about 2,600.

The CITT’s role in the AGL partnership has been to help link the academic curriculum with materials specific to the logistics sector. It has done work on assessment of industry-based skills and helped teachers connect those to the lesson plans and develop integrated work-based learning projects. The CITT also developed a summer externship to educate teachers, administrators and guidance counselors about the industry. O’Brien noted the importance of including school staff beyond just CTE teachers, including special education teachers, because of their large influence over students’ vocational information.

One goal of the AGL partnership is to make students aware of career opportunities and how the skills they are learning can be applied to different aspects of the transportation sector, ultimately increasing the labor pool. The

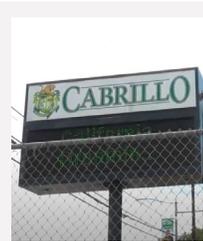
Center for International Trade and Transportation (Long Beach, California) (cont.)

program has been running since 2016, so it's too early to determine whether these students are finding a path into the logistics industry, O'Brien said.

However, other assessments "indicate that something good is happening there," he said, citing a 10 percent increase in the number of students choosing the pathway, a decrease in D's and F's, an increase in AP course enrollment, and a decrease in the number of students who are chronically absent.

"Having an industry partner brings resources to the table," O'Brien said, "but also a focus in terms of raising the profile of a specific industry with the local community that often has viewed it as more of a nuisance than as a path to economic development."

▼ RELATED MATERIALS

	<p>Port of Long Beach Academy of Global Logistics page</p> <p>➔ External link</p>		<p>Cabrillo High School Academy of Global Logistics page</p> <p>➔ External link</p>
	<p>Tom O'Brien on partnering with high schools</p> <p>➔ Part One</p>		

Pre-apprenticeship model

The CITT has been working with small and medium transportation and fleet companies to introduce a model that helps address the problem of employing high school graduates in the three or four years until they're eligible to sit for CDL programs at the age of 21.

"There's a real hunger, because people are losing drivers to other sectors of the economy while they're waiting to take a CDL class," O'Brien said.

The CITT had outlined a small-scale pilot program with local trucking companies to be targeted initially at students from Cabrillo High School. "The idea is you get those students onto campus with employers who have already agreed to take on someone for at least a trial period, and we do a match," O'Brien said. That program was set to launch in the spring of 2020, but it was postponed in light of the COVID-19 pandemic.

In this kind of apprentice-like model, the student benefits from having paid employment and work experience, as well as learning about the culture of the company and the industry. The employer, meanwhile, benefits from seeing the potential employee in action, getting to understand their value before offering a permanent position.

Once the employee is 21, the employer would support their CDL training and bring them on as a new driver.

Center for International Trade and Transportation (Long Beach, California) (cont.)

It's a type of program that might be more difficult in transit because it's a highly unionized environment, O'Brien said, "but some of the models that are being tested outside of transit could prove helpful in structuring training programs within transit."

▼ RELATED MATERIALS



“A Changing Perception of Apprenticeships” article by Tom O'Brien

➔ Part Three

College-level training and cooperation

Funded by a two-year [grant from the Federal Highway Administration](#), CITT developed a career pathway initiative in transportation planning, focused on strengthening the connection between high school students dual-enrolled at community colleges and four-year universities. While it's rare for community colleges to have planning programs, O'Brien said, they do teach technical skills such as GIS, for example. So to make students aware of the opportunities at four-year universities, and prepare them for success, the program contextualizes those other fields for transportation.

“We sort of flipped the model,” O'Brien said. “Instead of teaching GIS to transportation students, we taught transportation to GIS students.”

As one of the activities in the pilot program, students at Cal State Long Beach designed an app that allowed the dual-enrolled students to collect data on transport options on their smartphones. “They did a walk audit using the app looking at questions of safety and lighting and access—access to public transit, access for disabled people,” O'Brien said. “In the process, they learned about transport systems, but they also learned about the power of that technology—realizing that what they hold in their hands in their phone can be a powerful tool well beyond what they may use it for.” The students got to see their data populated on a map and concluded the training by giving a presentation about improvements they would make to the transport system in their community.

The program also connected the dual-enrolled students with global logistics master's degree students. “They could actually envision, ‘I'm a high school student getting this community college-level class, and here are people studying the same technology but at a more advanced level working,’ ” O'Brien said. “And having that dialogue, having the students in the master's GIS program ask the students what they liked about the technology and what more they wanted to do with it, and having somebody who's closer in age share that story with them, I think was one of the more effective parts of that training experience.”

Center for International Trade and Transportation (Long Beach, California) (cont.)

Non-credit pathways program

Long Beach has a [College Promise](#) program that guarantees high school students a spot at Long Beach City College; likewise, those who have earned a two-year degree at the community college and meet the minimum enrollment standard are guaranteed a spot at Cal State Long Beach.

But because of the large presence of the port in the community, many of the opportunities require more than a high school diploma and less than a four-year degree. For that reason Cal State Long Beach offers pathways to help students take and transfer non-credit logistics training.

One of these programs is a partnership with the Intermodal Association of North America, which funds scholarships for students in non-transportation degree programs to enroll in the non-credit professional designation logistics program and marine terminal operations program offered by CITT. “What it does is help marry a very employable skill with traditional academic programs that teach people how to think, how to write,” O’Brien said. “And those students do very well because they’re bringing something else to the table.”

The university also has partnerships with local trade associations that provide endowments to cover the cost of the logistics training program. “There are scholarships available all over the place for students in traditional degree programs, but students in our non-credit programs don’t always qualify,” O’Brien said. With the specially designated money, “students compete in a much smaller pool with people who are like them.”

Some of the scholarships are also earmarked for Cabrillo High School’s AGL students, eliminating a financial barrier to career training that’s valuable and relevant to the local community.

Transit operator training study

CITT recently completed a study for the Southern California Regional Transit Training Consortium, a group of community colleges and transit operators seeking solutions for training challenges faced by small transit operators that lack the infrastructure and resources to deliver training.

The study looked at “what the consortium members found valuable, what transit operators outside the consortium may find valuable ... and the community college service providers, to see how they stay on top of things,” O’Brien said. The study also looked at the success of and impediments to online transit training.

▼ RELATED MATERIALS



[“Southern California Regional Transit Training Consortium: Skills Gap & Needs Assessment”](#)

External link



Morgan State is a historically black university with a one-of-a-kind program devoted exclusively to preparing students for the field of transportation and urban infrastructure. The university cultivates partnerships to create workforce placement opportunities for students.

**Interviewees: Celeste Chavis, associate professor,
and Young-Jae Lee, professor**

Transportation focus

Morgan State’s [Department of Transportation and Urban Infrastructure Studies](#) (TUIS) is a unique program within the school of engineering. TUIS serves students from diverse backgrounds, including many first-generation students and recent immigrants. While most undergraduate and graduate transportation education occurs as part of a civil engineering or urban planning program, TUIS is a department dedicated entirely to transportation. As a result, it can offer students numerous courses directly related to transit, such as Public Transportation Systems, Management of Transportation Systems, and Transportation Infrastructure. Courses are offered at both the undergraduate and graduate level.

“Our program is very unique,” Chavis said, “because most education for transportation is part of a civil engineering course. So students are taking one or possibly two transportation courses in their undergraduate education. But our students are taking more than 16 core transportation courses covering planning, engineering, management, logistics and more.”

Chavis tells students to focus on their personal connections and their own use of transit as a means to understand the value of transit careers. Lee added: “We are an urban university, in a city that has a lot of public transportation. A lot of our students are exposed to public transportation.” This exposure, Lee noted, tends to increase students’ interest in transit. Lee also noted that work experiences, including at transit agencies, are important for exposing students to specific career opportunities.

National Transportation Center and Summer Transportation Institute

Morgan State hosts the National Transportation Center, which has a research focus on transportation and traffic modeling, among other issues. One of the center’s goals is to increase the number of women and minorities in transportation.

The center hosts an annual Summer Transportation Institute. STI is a free program targeted to high school sophomores, juniors and seniors with at least a 2.5 GPA. The four-week institute introduces students to transportation and engineering, teaches STEM concepts needed for these fields and builds the next generation of transportation professionals. It includes workforce events, field trips, projects, SAT preparation and networking opportunities. Students receive a \$250 stipend for completing the program. The center also offers assistantships to TUIS graduate students and sponsors a graduate fellowship.

Morgan State University, Transportation and Urban Infrastructure Studies (cont.)



TUIS conducts other activities to reach high school students. This includes participating in the annual Visit Morgan Day, STEM days, and hosting competitions for high school students (e.g., a bridge building competition).

▼ RELATED MATERIALS



[Summer Transportation Institute](#)

External link



[Feature article on STI summer program](#)

External link

Practicum program, internships and partnerships

One key to TUIS's success is its practicum program, which is required for all undergraduate students. Students are required to work a minimum of 135 hours under the supervision of a transportation professional to graduate. Many students choose to fill that requirement over the summer. Placements are paid, and TUIS has worked with numerous organizations to create opportunities for students. These include the Maryland Department of Transportation, the City of Baltimore, the District Department of Transportation, and private companies such as Northrop Grumman. TUIS also has a formal internship program for graduate students through the Maryland DOT, and it encourages students to apply for [COMTO's internship and scholarship programs](#).

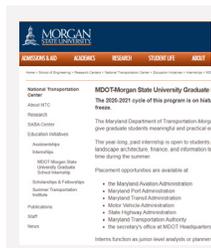
Morgan State University, Transportation and Urban Infrastructure Studies (cont.)

TUIS has worked to cultivate networking opportunities for its students. One event is an annual meeting with student and professional members of the Institute of Transportation Engineers, which is hosted on campus. The session allows student and professional members to network. The event also includes mock interviews and resume critiques. Cultivating these relationships helps promote future work opportunities for students. “People are getting familiar with our students, and through that pipeline they always think of us when opportunities are presented,” Chavis said.

TUIS has also partnered with the private transportation data collection company Quality Counts. This relationship grew organically, Chavis said, as a follow-up to a classroom presentation about data collection and the transportation sector. “It turned into a long-term relationship where we had students interning there to later be hired full time, and also when they have major data collection projects, instead of going out and recruiting temporary workers, they hire our students,” Chavis said. This is a win-win, as the company gets a qualified source of labor, and students get real world experience.

TUIS works to make its students visible to prospective employers via participating in competitions such as the [ITE Collegiate Traffic Bowl](#). Morgan State also has job fairs to connect students and employers, such as the annual fair hosted by the Center for the Built Environment and Infrastructure Studies. The 2020 CBEIS job fair featured over 50 employers.

▼ RELATED MATERIALS

	<p>MDOT-Morgan State University Graduate School Internship</p> <p>External link</p>		<p>Center for the Built Environment and Infrastructure Studies job fair</p> <p>External link</p>
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Northeast Transportation Workforce Center



The NETWC is based at the University of Vermont’s Transportation Research Center and has a mission of ensuring that the U.S. surface transportation system has a workforce that is resilient, skilled, efficient and effective to support the region’s vitality.

Interviewee: Glenn McRae, director

High school curriculum

In 2008, NETWC received a Transportation Education Development Pilot Program (TEDPP) grant from FHWA, one of five given nationally in an attempt to identify new ways of providing transportation education and increasing the pool of future transportation professionals. The center partnered with Vermont’s largest

Northeast Transportation Workforce Center (cont.)

high school, [Community High School of Vermont](#), which serves primarily teens and young adults who are incarcerated or under supervision through the probation or parole systems.

The high school has a strong emphasis on CTE, so it was a good partner for what became the Transportation Systems Academy, McRae said. “We designed the basic curriculum to meet the first-year certification and training requirements that the Vermont Agency of Transportation had for workers in their maintenance and operations division,” he said. That included 10 components, including a general introduction to transportation, safety certifications and a flagging certification.

When grant funding ended in 2012, the high school kept the program going but broadened it into a heavy transportation and construction curriculum. The original transportation curriculum was turned into a toolkit that can be used as an add-on at other technical education centers around the state.

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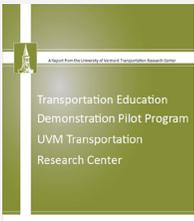
TEDPP Executive Report, 2010

➔ Part Three



TEDPP Executive Report, 2011

➔ Part Three



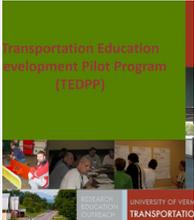
Transportation Education Demonstration Pilot Program final report

➔ External link



Evaluation of the Transportation Education Demonstration Pilot Program

➔ External link



Presentation describing TEDPP programs

➔ External link



TEDPP summary report, 2008-2013

➔ External link

Educator resources

NETWC’s curriculum project, which originally was another TEDPP program at a different location, is designed to be used to create add-on transportation curriculum units that can be adopted by science, CTE or math instructors in grades 6 through 12. The units also can be combined to create an entire transportation curriculum, McRae said. NETWC updated the courses in 2018 to meet the most recent educational standards.

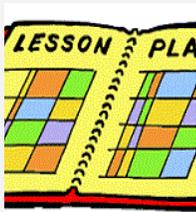
Northeast Transportation Workforce Center (cont.)

“They’re a really good framework of materials that were designed by teachers to be used by teachers,” he said. “They’re free, downloadable and have been well-tested, so nobody will have to reinvent it for themselves.”

NETWC also has created transportation industry fact sheets that it has used with guidance counselors, program developers and teachers to raise transit awareness and help promote the curriculum offerings.

“You always have to convince the kids,” McRae said. “But we’ve also found that we have to convince the people who teach and do program development that this is a dynamic field, it’s a big field, there are a lot of jobs. And rather than having people circuitously get to it, there can be some opportunities for program development to direct people to it.”

▼ RELATED MATERIALS



[Lesson plans](#)

➔ External link



Vermont Transportation Industry fact sheet

➔ Part Three



Transportation Industry fact sheet

➔ Part Three

Community colleges survey

In collaboration with the American Association of Community Colleges and the U.S. Department of Transportation, NETWC in 2009 surveyed community college respondents to evaluate their capacity for and interest in establishing more transportation-related programs.

“For community colleges, what they really need is critical mass,” McRae said. “They need a critical mass of students, and they need a critical mass of job opportunities, for them to actually develop and run any program. ... And then obviously they need to be able to say the skill set and competencies that they’ve given people in the program has application with multiple employers.”

The TRC has worked with the Community College of Vermont to build a pilot program to attract current transportation workers without college degrees to obtain either a certificate or degree that would be relevant to advancing their career in their organization. This type of effort with community colleges is advancing nationally at a number of institutions.

Northeast Transportation Workforce Center (cont.)

▼ RELATED MATERIALS



[Transportation Workforce Development at Community Colleges](#)

[External link](#)

Southeast Transportation Workforce Center



Housed at the University of Memphis, SETWC serves a 12-state region to coordinate programs aimed at ensuring that students and others are aware of transportation careers and the required skills and training to be successful.

Interviewee: Stephanie Ivey, director

Transportation-STEM Academy

Facing a dire need in the region for more transportation professionals, particularly those with a STEM background, the SETWC launched a collaborative effort that led to the opening of T-STEM Academy as a magnet school at the former East High School in Memphis.

The effort started in 2016, when SETWC approached Shelby County Schools with data on gaps in the local job landscape, the importance of the transportation industry, and an outline for how T-STEM—a term the center coined—could meet the needs of a variety of students, Ivey said.

“When we say STEM, we don’t mean just careers that require four-year degrees,” she said. “We talk about it from the standpoint of STEM for all: STEM jobs that might require certifications, associate’s degrees, four-year degrees or graduate degrees. We wanted to help students not only be aware of transportation careers but also help them connect with a career pathway that is a good fit for them.”

The school district was interested, and it also had a sense of urgency, because East High School had not been meeting academic benchmarks and was in danger of being taken over by the state. So the group embarked on a “completely insane timeline” to open the new program in the fall of 2017, Ivey said. One of her first steps was to reach out to a few dozen industry partners to ensure their support for a magnet school application.

“The biggest eye-opener for me was that I got every single person to respond. Just immediately, it was, ‘Absolutely, yes. What can we do? How can we help?’ ” Ivey said. “I think that was the thing that really sealed the deal for the district.” The industry was involved every step of the way, she said, with partners in both the private and public sector. They attended meetings, offered input on the model and helped recruit families to

Southeast Transportation Workforce Center (cont.)

the program, among other contributions. For example, [Cummins](#) spearheaded the school's diesel mechanics program, including designing and outfitting the lab, through its [Technical Education for Communities](#) program.

The industry involvement has helped to build a “culture of career” in the school, Ivey said, which has been crucial to building students’ confidence in their education, especially among underrepresented students who don’t often see people who look like them in STEM careers. Students also have a lot of contact with industry professionals in the various school programs, such as quarterly “genius projects” evaluated by professionals.



Additionally, students in the diesel mechanic program get dual-enrollment credit, so they will be able to complete their full certification one year after graduation. “The employers are so vested that these students will immediately have jobs,” she said. The school was also hoping to launch a range of apprenticeships for students with industry partners, but those plans were derailed in the summer of 2020 by the COVID-19 pandemic.

Each month, SETWC brings a transportation leader in as a guest speaker to talk to the students about their own career path. The center strives to find diverse leaders for these talks, Ivey said. “It’s really important for students to see somebody that they might connect with on a variety of levels,” she said. “We look at diversity in terms of career pathway and ethnicity and gender and age and just everything that we can. But all of them focus on how they got where they are today, what they love about their career, and advice for students if they think this is something they want to pursue.”

Enthusiastic buy-in from stakeholders was crucial to the school’s creation and success, Ivey said. “People say this all the time, but you have to be really intentional about buy-in and making sure everybody has a stake in what’s happening,” she said. “We had so many partners at the table for everything we did, so if there was ever a stumbling block, there were people there that could help us get over that hurdle.”

Southeast Transportation Workforce Center (cont.)

Ivey also cited the collaborative spirit of Executive Principal Lischa Brooks. “Her willingness to collaborate with industry and higher education, and get the community excited about her vision for the school, is really what made it grow so rapidly,” Ivey said.

▼ RELATED MATERIALS



[T-STEM Academy playbook](#)

External link



[Transportation Spotlights used at T-STEM Academy](#)

External link



[Lesson plans for Summer Transportation Academy \(orientation program for incoming freshmen\)](#)

External link



[Transportation CEO Series sample flyer](#)

Part Three

Girls Experiencing Engineering

GEE is designed to help young girls—and their parents—see beyond the stereotypes of STEM careers. SETWC has run the popular one-week summer program for 17 years at both the middle school and high school level. Girls participate in hands-on team projects, listen to guest speakers, take field trips, and get an understanding of how they need to prepare if they want to pursue an engineering or other STEM career.

“We help them understand that there are all sorts of different career pathways, even within engineering, and so many different things you can do,” Ivey said. “We explain that it’s absolutely something where women are not only capable but needed. And we really work to help them understand the importance of diversity in solving problems and how the diverse perspectives are essential for really developing the most robust solutions.”

Parents of participants get a similar education, Ivey said. “We found that even though parents had enrolled their children in the program, they themselves did not have STEM backgrounds, and they didn’t know how to talk to their children about these opportunities or how to move forward to pursue them. The girls perceived that as their parents not being supportive,” she said. Parents also didn’t see themselves as very important to their children’s college decision-making process, while in exit surveys the students had actually listed them as the top influencers.

Girls in the program also receive mentoring: Middle school students are mentored by high school students, and high school students by graduate and undergraduate students. “Each group sees near peers, which I think is probably one of the most influential things for getting young women to think about these career paths,” Ivey said.

Southeast Transportation Workforce Center (cont.)

The Women's Foundation for a Greater Memphis was the founding sponsor of the program, and Canadian National Railway is a long-term sponsor that allowed organizers to add a transportation focus to GEE.

▼ RELATED MATERIALS

	<h4>Girls Experiencing Engineering business case</h4>		<h4>Stephanie Ivey on the importance of reaching out to parents</h4>
	➔ Part Three		⬅ Part One

Women in STEM and transportation

Since 2015, SETWC has been undertaking a research and partnership development effort to address the underrepresentation of women in the transportation workforce. This has resulted in a multipronged initiative targeting women and girls from K-12 through career. Among the outcomes that SETWC and its collaborators have developed:

- Building a partnership with the [Women's Foundation for a Greater Memphis](#), which has a mission of breaking the cycle of poverty by supporting nontraditional training programs that help women reach their full potential. Among other things, WFGM has helped SETWC expand access to its Girls Experiencing Engineering program.
- Building a partnership with [Southwest Tennessee Community College](#) to design a transportation-focused training program targeting women from socioeconomically disadvantaged communities.
- Developing journal publications and book chapters focused on women in transportation.

Partnerships are critical to reaching underserved populations, particularly because women and girls with low socioeconomic status face more than just the usual barriers to transportation careers, Ivey said. “These partners already have the same mission in mind, and they already have a framework in place,” she said. “The cool thing about the Women's Foundation is that they're not just in Memphis; there are organizations all over the country. And everybody has community colleges or technical schools near them. So these kinds of partnerships can be replicated anywhere at any scale.”

▼ RELATED MATERIALS

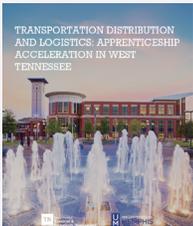
	<h4>”Building a Business Case for Increasing Diversity in the Transportation Workforce” article</h4>		<h4>Women in Transportation Playbook</h4>
	➔ External link		➔ External link

Southeast Transportation Workforce Center (cont.)

Apprenticeship report

SETWC undertook a project for the Tennessee Department of Economic & Community Development to create a blueprint for increasing the number of apprenticeships in transportation and logistics, with an emphasis on recruiting underrepresented candidates. “We all talk about what these need to look like from an employer perspective, or the perspective of the education piece,” Ivey said. “But we don’t ever really think about it from the standpoint of the student. That was something that was particularly interesting to us, was to talk with students a little bit more to understand, ‘What do you think about apprenticeships when you hear that word? What can we do to make this more attractive?’ ”

▼ RELATED MATERIALS



[“Transportation Distribution and Logistics: Apprenticeship Acceleration in West Tennessee”](#)

[↗ External link](#)

Transportation summit

The SETWC hosts the Choosing Transportation Summit, which is primarily a professional development event that brings together people from academia and the public and private transportation sectors. But after a day of speakers and networking, the conference transforms into a career expo and contest for high school students. “The companies that are there switch hats and talk to students about their mission, what they do, what kind of people they hire,” Ivey said. “They generally have some sort of cool demo they can show to help tell their story.”

Students who participate in the expo also take part in a Transportation Challenge competition, where they form small teams to tackle a challenge in the industry and then present their findings and recommendations to a panel of judges from the industry. The professionals are encouraged to stay for the high school presentations, so the groups get to interact.

▼ RELATED MATERIALS



[Choosing Transportation Summit student agenda](#)

[↗ Part Three](#)



[Transportation Challenge rules and entry](#)

[↗ Part Three](#)



The mission of the Transportation Workforce Institute, hosted by LATTC, has regional impact through its partnerships to meet employer needs, as well as national impact through its shared curriculum and workforce development resources.

Interviewees: Jess Guerra, executive director, and Marcy Drummond, senior fellow

Transportation Youth Academy

After the [Transportation Workforce Institute's](#) creation in 2015 by a two-year Innovative Workforce Development Grant from the FTA, the organization did a deep dive into how best to develop the next generation of transportation professionals. One of the biggest hurdles it identified was lack of awareness about careers in the industry. The institute needed “to dispel the myth that if you’re going to work in transportation, that you’re going to be either a mechanic or a bus operator,” Guerra said.

The [Transportation Youth Academy](#) was formed in 2016 as a means to introduce high school and middle school students to different facets of transportation, specifically transit, and then expose them to various transit career options. The focus, Drummond said, “was just to get them excited about what all the career opportunities are and think of transportation as an industry they would like to work in.”

TYA was held as a five-week summer program in 2016 and 2017. One summer’s capstone project was focused on building a working monorail, and the other cohort of students learned about geographical information systems and transportation planning to map out a new monorail route for Los Angeles.

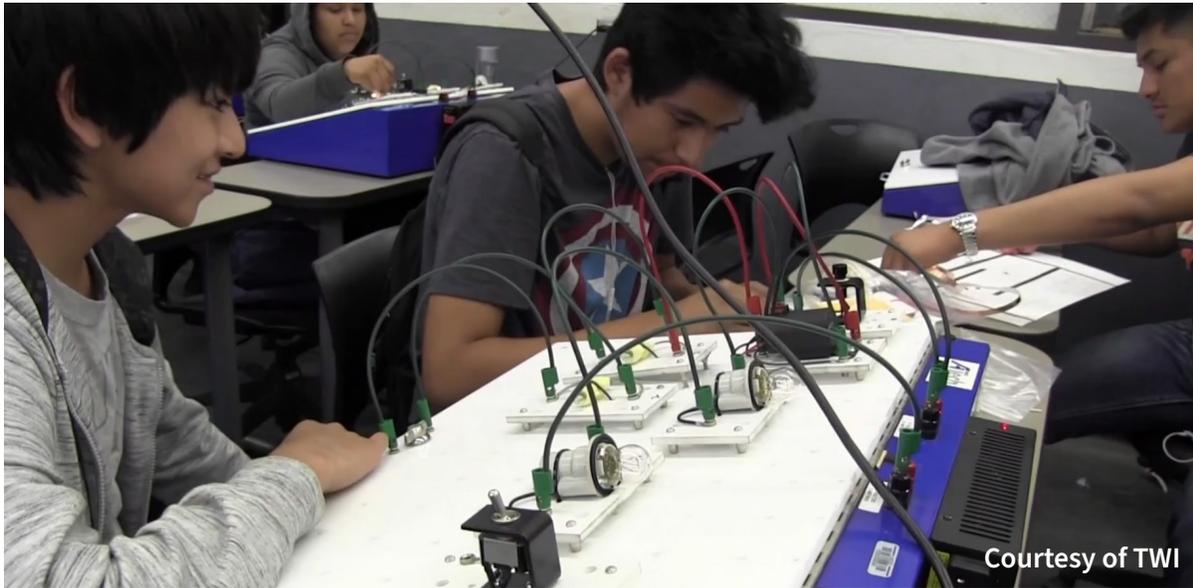
The curriculum for the program was developed in modules to make it flexible enough for other organizations to use in whole or in part, and at their own pace. It includes instructor guides and a range of potential topics that can be organized based on learning goals. The modules are infused with three themes designed to appeal to high school students: sustainability, smart transportation and social justice—the importance of ensuring that everyone has access to affordable transportation.

The program was also rolled out to high schools, taking advantage of a [dual enrollment](#) system in the state of California that allows students to attend community college for free, earning both college credit and satisfying the requirements for a high school elective at the same time. Four high schools in Los Angeles County currently offer the TYA program, with LATTC faculty typically going out to the high schools to teach two days a week. It’s been extremely well-received, Guerra said.

“One of the good challenges that’s come out of this is that we’ve had to come up with ‘What do we follow this Transportation Youth Academy with?’ Because some of the students were returning and wanting to enroll for whatever was next,” he said. “We have school principals that keep requesting not only the same coursework, but many times the same instructor.”

Students most enjoyed hands-on and project-based activities, as well as videos and working in teams. Pen-and-paper activities were the least popular, including one in which students took a career interest inventory and then explored matching transit careers. “That’s a real individual project,” Drummond said, “so if we were to maybe redesign it so they’re working with their peers, comparing their results, maybe they would like it better.”

Transportation Workforce Institute (Los Angeles Trade–Technical College) (cont.)



Students in the program are pleasantly surprised about both how much transit jobs pay and to what extent they are truly STEAM jobs. “They are completely blown away to learn that if you’re going to be a bus mechanic, as an example, the first tool you need to learn how to use is a laptop or tablet,” Guerra said. “It really piques their interest to find that some of these more traditional occupations actually have a level of technology that seems to be attractive to them.”

The most difficult part of the program is establishing the initial connection with high schools, Drummond said. “Not only are there biases around what these careers are, but we have to be really careful because we’re also in low-income communities of color, so there’s a concern that students will be tracked into certain types of occupations,” she said. “But it’s really to get students excited about all the possibilities; they could go from here to anywhere. They could get a Ph.D. in data science and work in transportation.”

One lesson learned with the program is that it’s most effective to offer it on a continuous basis, every semester rather than just once a year. “That’s a good way to keep schools engaged,” Guerra said. “One of the unexpected things I learned is that there tends to be quite a bit of turnover at some of the schools, so if you’re only running these programs maybe once a year and they’re not constantly on people’s radar, sometimes you have to go back and rekindle that relationship.”

Guerra emphasized the importance of leveraging partnerships, especially educational partnerships, to the success of the program. At LATTC, “we have facilities, we have faculty who are experts, and we already have a connection with feeder high schools that are going to bring students to our campus,” he said.

Transit-education partnerships are mutually beneficial: Community colleges are very interested in industry partnerships to help their students move into careers, and transit agencies may also be able to provide technology that a college’s students can benefit from getting experience with. “Community colleges have a core workforce development mission, and really part of that mission is to establish these relationships with industry,” Drummond said.

Transportation Workforce Institute (Los Angeles Trade–Technical College) (cont.)

She added that a logical next step for TYA would be to actually bridge students into an entry-level job in transit, so elements of beginning that process may be added to the program in the future.

▼ RELATED MATERIALS

	<h4>Transportation Youth Academy fact sheet</h4> <p>➔ Part Three</p>		<h4>Transportation Youth Academy supplemental instructional resources</h4> <p>➔ External link</p>
	<h4>Transportation Youth Academy home page</h4> <p>➔ External link</p>		

Transportation Workforce Readiness Program

This program came about through LATTC’s partnership with LA Metro on its [Workforce Initiative Now-Los Angeles \(WIN-LA\)](#) program and was designed to help to develop a transit workforce with more education about the industry and the work environment, as well as basic employability competencies.

“We developed the Transportation Workforce Readiness Program with the goal of getting someone employment-ready,” Guerra said.

The weeklong program is offered on demand and in conjunction with expected job openings at LA Metro. It’s an instructor-led course designed as 32 hours of coursework, as well as an eight-hour simulation-based model, all contextualized to the workforce need being filled. Participants also work with American Job Centers to get resume-writing and interviewing skills, as well as other supportive services.

“Of the curriculum modules, probably 90 percent would apply to any entry-level occupation in transit,” Drummond said. “And then depending on the opening, we add other modules that are specific to those occupations.”

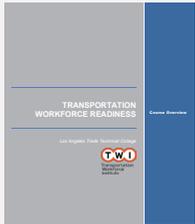
Seventy-nine percent of program completers in the pilot class met transit employment eligibility requirements, and 38 percent of those were immediately hired. The rest were placed in a pool of qualified candidates for future consideration.

Participants come into the program through the WIN-LA network, which has an application process targeted at attracting low-income, historically underserved communities, as well as underemployed individuals.

Transportation Workforce Institute (Los Angeles Trade–Technical College) (cont.)

The COVID-19 pandemic has brought the class to a halt for now, Guerra said, but the program has been run twice and is now ready to scale to additional employers, community partners and colleges. The pilot class at LATTC enrolled 98 participants, with more than 90 percent completing the program.

▼ RELATED MATERIALS



Transportation Workforce Readiness course overview

➔ Part Three



Transportation Workforce Readiness Competencies

➔ Part Three



Transportation Workforce Readiness handout

➔ Part Three

PARTNERS

Easterseals



Easterseals has more than 60 national and international affiliates, many with workforce development programs focused on people with disabilities, and resources to help employers connect with this segment of the workforce.

Interviewee: Judy Shanley, Ph.D., assistant vice president, Education & Youth Transition

Transportation education and awareness

Public transit is a vital component of employability and mobility for people with disabilities, and [accessible ground transportation](#) is the law. So one focus of Shanley's work is on youth transition and the transportation supports that students with disabilities need as they leave high school. Her work on transportation education includes informing youth about the various transit options and their use, engaging students in advocating for increased accessibility, and building partnerships between schools and public transportation.

For example, Easterseals coordinated a student-led project in Crestview, Ohio, that matched students who did not have disabilities with students with disabilities to jointly develop an inventory of accessible transportation in the region. The students researched all the public and private transportation providers, mapped their services and coverage area, and presented their findings to the local school board.

Another practice Shanley recommends is to arrange field trips for students with disabilities to come into transit facilities or bus yards to learn firsthand about the features of public transit. "For many youth, their families have always driven them everywhere, or they've had school-based transportation, but they've never been on the public bus," she said. "We've had an operator come and talk about the features of the bus—like the securement systems, level boarding, boarding ramps and the payment systems—and it's just a cool way to raise awareness."

One byproduct of this type of work, Shanley said, is that it also heightens awareness of and interest in transit careers for the students. She believes transit agencies could easily leverage their existing partnerships with social service providers to talk about not just accessibility, but also workforce issues. "Agencies just routinely have these connections, so they could build on those to create partnerships for recruitment, retention and advancement," she said. "I think it's important."

▼ RELATED MATERIALS



National Center for Mobility Management brochure

↗ External link



Student Transportation Education module

➔ Part Three

Easterseals (cont.)



Shanley on marketing transit to disabled youth

➡ Part One

Links to resources

Easterseals recommends the following resources to transit agencies exploring outreach to youth and adults with disabilities.

Potential transit agency partners:



United Cerebral Palsy

➡ External link



Goodwill

➡ External link



The Arc

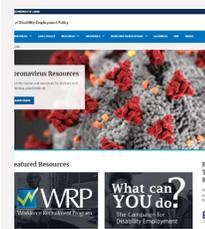
➡ External link



Centers for Independent Living

➡ External link

Workforce readiness and transitions:



Evidence-based practices related to workforce readiness

➡ External link



Transition practices shown to predict success

➡ External link

Easterseals (cont.)



Soft skills curriculum

[External link](#)



Employer Assistance and Resource Network on Disability Inclusion

[External link](#)

Onboarding, recruitment and retention:



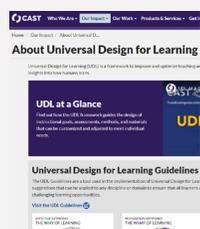
Recruitment and retention of workers with disabilities

[External link](#)



Understanding job accommodations and supports

[External link](#)



Universal design for learning

[External link](#)

Introducing Youth to American Infrastructure



Launched in 2018, iyai+ teaches students—particularly girls and underrepresented minorities—about the critical importance of infrastructure and technical education, helps them see the infrastructure all around them, introduces them to careers in the sector, and teaches them to flex their “civic muscles” to make a difference in their communities.

Interviewee: Beverly Scott, Ph.D., founder and CEO

Awareness programs

The transit industry has known about its issues surrounding transit workforce readiness for more than two decades, Scott said, and the formation of nonprofit iyai+ was her response to realizing that every infrastructure sector faces these same problems:

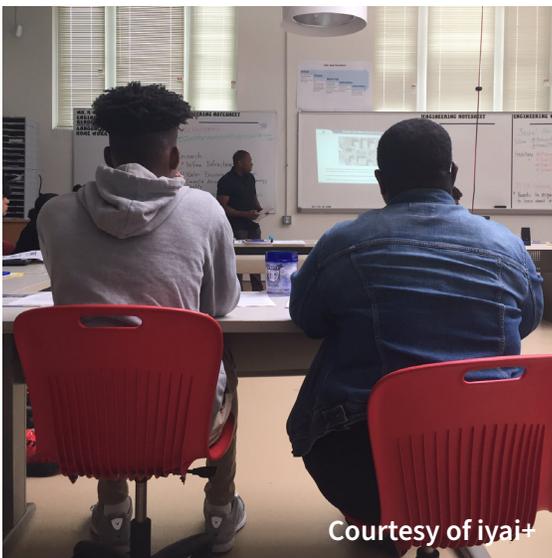
- A coming wave of retirements
- An explosion of new technologies and work environments

Introducing Youth to American Infrastructure (cont.)

- A major image problem among young workers, including both lack of awareness and misunderstanding about the sector
- Underrepresentation of women and people of color
- 20th-century solutions to attracting a 21st-century workforce
- Insufficient attention and commitment to elevating HR management to a business imperative

iyai+ targets its programs to 11th- and 12th-grade students. Some of the efforts so far:

- A six-week pilot called “[Introduction to Infrastructure Careers – Gateway to Opportunity](#)” was conducted in 2019 with a cohort of 17 students from Cardozo TransSTEM Academy in Washington, D.C.
- A 2020 summer internship program was conducted in collaboration with [Chicago Transit Authority](#) for a cohort of 25 students from Chicago Public Schools. Because of the pandemic, this program was taken virtual and was focused on emergency planning and resilience. The program also implemented a learning management system to provide self-directed learning opportunities for students.
- iyai+ has created the Dr. Juanita Jones-Abernathy “My Beloved Community” [virtual internship](#) for fall 2020 to hire “community builder” interns who will work with iyai+ to strengthen its learning opportunities and the overall student experience.
- The “My Beloved Community” social justice initiative within these programs encourages students to apply their learnings to tell their own stories, giving voice to the importance of critical infrastructure in their own lives. Students share these stories in video “[docu-shorts](#).” This element of the iyai+ was developed in collaboration with the Charles Hamilton Houston Center for Race and Justice at Harvard Law School.
- Program evaluation results uniformly show significantly increased potential interest in infrastructure careers once youth are able to make the connection to its community-building impacts.



One key goal of the programs is to make students aware of how their activism in the infrastructure world is a vital part of being a good citizen. “I’d love students to go into an infrastructure career,” Scott said, “but I also want them to understand how this ties into government and democracy. If there’s a hurricane or mudslide, or the toilets aren’t running, or the buses aren’t running, it affects all of us.”

Another of the critical goals of iyai+’s programs is to reframe the image of infrastructure workers to that of community-builders, centered in the work they do, and anchored in values and outcomes—the “+” in iyai+. The problem, Scott said, is that while STEM and STEAM education are great, they don’t always help students connect the dots to meaningful careers—which infrastructure has in spades.

“Everything we do is about people, communities and outcomes,” Scott said. “I tell the kids, ‘Who do you think does everything you care about? You care about the environment, housing, healthy living—who do you think does that? You want trees, bike paths, urban parks, clean water—where do you think it comes from?’ ”

Introducing Youth to American Infrastructure (cont.)

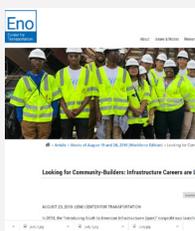
Transit agencies should make a similar case to students in their own outreach, Scott said, because the modern transit industry is in itself a microcosm of the infrastructure sector. “We plan things, we design things, we build things, we operate them, we maintain them, and we do it again. Everything we are is infrastructure,” Scott said. “But we also have lawyers, we have doctors, hydrologists—we’ve got everything. We have to wrap our own heads around how much we contribute.”

▼ RELATED MATERIALS



“Community Builder” internship form

➔ Part Three



“Looking for Community-Builders” article by Beverly Scott

➔ External link



iyai+ slides

➔ Part Three



Cardoza TransSTEM Academy summer program overview

➔ Part Three

Latinos In Transit



LIT was founded in 2016 to promote the advancement and development of Latinos and other minorities in transportation. Through its networking events and information sharing, LIT is helping to develop a diverse workforce of transit leaders.

Interviewee: Alva Carrasco, president

History and mission

Latinos In Transit grew out of a desire to support the advancement of Latinos as transit executives. Carrasco, a founding board member and current president, noted that the organization began organically as a group of professionals gathering at conferences. “We would go to conferences, like APTA, and we would not see that many Hispanics, especially women,” she said. “And so what we started doing was kind of gravitating toward each other.” This desire for a network and mutual support led to the formation of a formal nonprofit organization in 2016, with the help and support of Flora M. Castillo, APTA’s first Latina chair, and other transit leaders.

One of the organizations’ primary objectives is to encourage the advancement of Latinos into executive positions within the transit industry. As Carrasco notes, it’s not uncommon for Latinos to advance to

Latinos In Transit (cont.)

mid-management positions such as supervisors or managers of frontline employees. However, there are very few Latinos represented in the C-suite. “One of the things that we realized as a group is that there’s no support system in place to help Latinx move up in the industry, and so we really wanted to focus on that, and start talking to our Latinx colleagues to get their ideas and input on how you can go for an executive job or become the next CEO,” Carrasco said. LIT’s goal is to be proactive in promoting “diversity at all levels of the organization.”

Scholarship program

LIT recently partnered with [MV Transportation](#) and the [American Public Transportation Foundation](#) to create the APTF MV Transportation/Latinos In Transit Scholarship. For the past two years, the \$6,500 award has been given to one Latino student at the postsecondary level who is pursuing a career in public transit. The goal is to recognize outstanding achievement and to encourage students to pursue transit careers. LIT publicizes the winner with an announcement on its website and [social media](#) pages, as well as recognizing the recipient during LIT’s Annual Membership Meeting held during the APTA Annual Conference.

Carrasco believes such programs are a great incentive and notes from her personal experience that scholarships are motivational and encourage students to seek and remain in transit careers.

Mentoring program and leadership academy

LIT is in the process of starting a mentoring program, where mentees will be paired with someone more senior. The program is open to mentees and mentors at any level of an organization and will launch in 2021.

In fall 2019, LIT hosted a leadership summit, which brought together about 100 participants for a daylong gathering. Because of COVID-19, LIT hosted an online virtual symposium in 2020 that coincided with Hispanic Heritage Month.

LIT is also developing a leadership academy program. Five leadership academy sessions will be held over the span of five weeks and will be offered to a limited number of transportation employees. Speakers will include transit executives talking about their personal experiences and how to prepare for an executive career, Carrasco said. The sessions are designed to provoke honest conversations on all topics—“the good, the bad and the ugly,” she said—and will include topics such as professionalism, ethics, equity and finances.

▼ RELATED MATERIALS



[2019 leadership summit](#)

External link

Latinos In Transit (cont.)

Social media initiatives

One of LIT's most successful programs is "Café con LIT," a series of online meetings where participants gather virtually one Friday a month to hear transit-related conversation. One recent session featured BART's Chief of Police Ed Alvarez talking about his background and upbringing as an immigrant from Mexico, transit policing in the age of COVID-19 and the BLM riots, and reforms BART has adopted. The sessions last an hour, and typically 30 to 80 people attend.

LIT also has two designated social media strategists to help it connect and engage with younger transit employees. LIT uses social media such as [Facebook](#), [Instagram](#) and [LinkedIn](#) to promote its activities and expand its reach. Carrasco noted that online engagement has been a successful strategy, especially for younger Latinos. Despite initial concerns about the impact of COVID-19, interest and membership has taken off.

Overall, LIT has used networking to continually grow and expand its network. It has also worked to geographically diversify its board, to help expand its ability to reach new members.

Reaching high school students

Carrasco is passionate about reaching high school students partly because of her personal background. She worked as a student intern at the Big Blue Bus in Santa Monica, California, at the age of 14. She credits this experience with introducing her to the transit industry, and to all the different types of work that are part of transit. "During my career I've worked side by side with fire departments, police departments, accident reconstructionists, the FBI, Homeland Security, grant and financial managers, planners, marketing, engineers, vehicle manufacturers, IT experts, construction managers, students, interns, and many other experts that you find in the industry," Carrasco said. "Because of a career in public transit, I've worked with a very diverse group of people from all walks of life. The list just goes on."

Carrasco offers the following advice for transit agencies wanting to reach younger workers:

- Use internships and student work programs as a way to introduce students to transit. Such programs are a "huge morale and confidence booster," especially for disadvantaged or at-risk youth who may appreciate the chance to earn some money for working a few hours a week or over the summer.
- Introduce students to transit via field trips, access passes and school-based educational opportunities. She noted that many students may not know how to use the transit system, and may not know that transit careers are broader than just driving a bus. Introducing students to transit is a win-win, she notes, because "you might get a rider out of it or you might get an employee out of it."
- Introduce youth to transportation with fun events such as the bus and rail Roadeo competition. Agencies should invite the families of employees to events like this, she said, which also gives youth an appreciation of the difficulty of operating a vehicle safely.
- Work with vocational schools. "Transit agencies are always looking for mechanics and technicians," Carrasco said, "and they can't find them, because there aren't enough people that are trained to do this type of work." She encourages agencies to look into more partnerships with vocational or technical schools, even paying tuition for students if necessary, as a critical investment to developing their workforce.



Funded by the FTA, U.S. DOL and Transit Cooperative Research Program, the Transportation Learning Center works with transit labor and management to support technical training partnerships that build the industry's frontline workforce.

Interviewees: Jack Clark, executive director, and Xinge Wang, deputy director

Pre-apprenticeship curriculum

In collaboration with subject matter experts from labor and management, along with experienced educators and trainers, the center has developed the Transit Core Competencies Curriculum (TC3). TC3 serves as a bridge, providing the critical connection in a pathway leading from general academic and personal competencies developed in school or through workforce development programs to transportation- and transit-focused training and education. Designed in a student- and instructor-ready, interactive and hands-on modular format that can be used in a variety of settings, TC3 helps prepare participants for entry into public transportation agencies' training and apprenticeship programs, providing a foundation to enter frontline careers in the industry.

Available TC3 modules provide an initial overview of the industry and workplace practices and then focus on establishing and strengthening basic required competencies in transit-related technology and maintenance. The center has collaborated with agencies, unions, workforce development programs and educational institutions to design programs that have been delivered to diverse groups of students in [Denver](#), [Cleveland](#), [Boston](#) and [New York](#), and have been adapted to a virtual program for use with [iyai+](#) students in Chicago.

A key element of the program's success has been having frontline workers as co-instructors, talking to the students about their experiences, Clark said. "I've seen in the classroom, when they start talking about dealing with signals and working with electricity, people go, 'Oh, I can really do that. That's something I can really learn,' " he said. "You can see people getting lit up."

TC3 includes instructor- and student-ready materials in a 10-module format that can be used in a variety of settings. As a whole, they provide basic personal and academic competencies in a hands-on format to provide a foundation for frontline careers.

One of the light bulbs that goes off for students in the program, Clark said, is how high wages are in transit. "You really can have a middle-class life if you end up in a transit career," he said. "And that's not true in an awful lot of jobs that young people without a post-secondary education generally have access to."

The center can work with interested partners on sharing and customizing TC3 materials and programs for their own career pipeline and pre-apprenticeship programs.

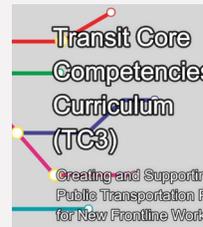
Transportation Learning Center (cont.)

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[TC3 curriculum and courseware previews](#)

↗ External link



[TC3 overview video](#)

↗ External link

American Apprenticeship Initiative

As a recipient of a DOL grant for the American Apprenticeship Initiative, the center helped transit agencies that were having trouble attracting technicians or operators design apprenticeships to attract and train future employees for those positions. This grant is scheduled to end in September 2021 and is still open for participation from new agencies.

Even with technical assistance, the program required a high level of commitment and investment on the part of transit agencies, Wang said, including negotiating wage rates and putting together the right curriculum for the agency's needs. But the advantages were numerous as well, she said. Apprentices go through structured classroom training, as well as on-the-job training. By the end of a two- or three-year program, they will be journey-level workers and may also have earned the credits needed toward their associate's degrees.

“For people coming out of high school, coming to the transit industry as an apprentice offers huge advantages and is probably reassuring for the parents as well that they will be moving up the career ladder and earning a degree at the same time,” Wang said. “I definitely think registered apprenticeship is the pinnacle of training and development that we want to push agencies toward.”

To implement and expand registered apprenticeship throughout the transit industry, the center works with transit agencies to guide them through the process and provide technical assistance and training materials when available. The center also brings together committees of agencies with established apprenticeships and those that are working toward registration to share successes and learn from one another. The efforts include a wide variety of frontline public transportation occupations, but the specific focus is on railcar, signals, traction power, elevator/escalator and bus maintenance, as well as bus operators. The center also provides mentor training sessions to agencies.

To offset the costs of apprenticeship, the center reimburses up to \$3,000 per apprentice for the on-the-job learning costs incurred by employers. The subsidy is provided through the American Apprenticeship Initiative grant and will not be available after the grant period ends.

Existing courseware in three occupations has been reviewed by the National College Credit Recommendation Service, so apprentices who have successfully completed these courses can apply for transcripts showing their earned college credit.

Transportation Learning Center (cont.)

▼ RELATED MATERIALS



[Bus training and apprenticeship standards](#)

[External link](#)



[Rail training and apprenticeship standards](#)

[External link](#)

Training consortiums

More than a decade ago, the center identified that lack of training budgets was a major problem for transit agency workforce development that was not going away. “Transit has suffered under this sort of an illusion that all we have to do is figure out how we hire the right people, and magically our skill gap disappears. That’s never going to happen,” Clark said. “Training has to be part of the solution, and you have to figure out how that training gets funded.”

The center’s answer was to pool agency resources to develop industry-wide training that can be developed in collaboration and shared among members of the group. With FTA funding and in partnership with experienced agency employees, labor organizations and APTA, the center has formed four consortiums since 2009: the [Transit Elevator/Escalator Consortium](#), the [Signals Training Consortium](#), the [Rail Car Training Consortium](#), and the [Traction Power Training Consortium](#), which launched in 2020.

The consortiums work with experienced instructors and frontline technicians to put together full curricula, including textbooks, in-classroom PowerPoints, instructors’ guides, resources for on-the-job training, and all the needed assessments, Wang said. The curricula begin at the 100 level, for redshirt apprentices, to learn background knowledge and theories. The 200 level includes more hands-on preventive maintenance and repairs, as well as agency-specific procedures, and 300 is troubleshooting and diagnostics. These consortiums are compliant with the national framework for apprenticeship approved by the Department of Labor, and those completing the program receive a journeyworker certificate issued by DOL.

“Developing this material on your own gets very expensive, but sharing it across locations is a real bargain,” Wang said. “Each agency is probably paying only 2 or 3 percent of the actual cost for the same high-quality courseware. We try to convince agencies that they don’t have to reinvent the wheel; they can go with the best in the country and at the same time comply with the national training standards put out by APTA.”

▼ RELATED MATERIALS



[Rail Car Training Consortium, Signal Training Consortium and Traction Power Training Consortium courseware](#)

[External link](#)



[Elevator/Escalator Training Consortium courseware](#)

[External link](#)

Year Up and Grads of Life



Year Up and Grads of Life focus on both sides of the skills gap—giving young adults the support and education they need for full employment and also teaching employers best practices to find and support such employees.

Interviewees: Beth Berwick, senior director of influence, Year Up and Kelly Graham, manager, Grads of Life

Year Up program

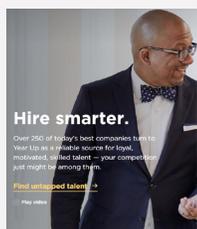
[Year Up](#) is a nonprofit training and internship placement organization that works with low- and moderate-income young adults between the ages of 18 and 24 (temporarily expanded to age 26 during the COVID-19 crisis) who have a high school diploma or GED but no postsecondary degree, a population the program calls “opportunity youth.” The program, typically offered in person at 34 metropolitan locations, offers six months of technical and workforce training, followed by a six-month corporate internship, with the goal of moving program graduates into either college degree programs or good-paying jobs with advancement potential.

Participants attend classroom training full time, Monday through Friday, and are paid a small stipend to help them offset living costs. These students also can earn college credit accepted at more than 2,000 higher education institutions nationwide. The stipend increases when they move to the internship phase of the program, which is also a full-time commitment. Year Up has more than 250 major corporate partners that provide internships and/or also hire program graduates.

Partnership with a workforce training provider like Year Up is an efficient way for employers to attract talent and to ensure that those workers have the professional skills needed to succeed, Berwick said. “We find that companies can do their own technical training—that’s their expertise,” she said. “And so what they need to look for are providers who provide other kinds of support, like how to talk to your manager, what’s the email etiquette, what are the professional skills you need to pair with your technical skills?”

Nationally, the program has about a 70 percent retention rate, and about 90 percent of program graduates either find employment or move on to a degree program within four months.

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[Corporate partner video](#)

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[Catalog of training specialties](#)

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Year Up and Grads of Life (cont.)

Grads of Life program

[Grads of Life](#) is an initiative within Year Up to focus on the employer side of the workforce readiness equation, helping companies learn to use “opportunity employment principles” to recruit and train young talent, how to support them, and ultimately how to retain them.

When working with employers, Grads of Life first analyzes the available jobs, evaluating which ones are appropriate for opportunity talent—meaning young people, populations that have been historically underemployed, people with disabilities, people who have been to jail, immigrants or DREAMers, and any other population that faces a systemic barrier to employment. Appropriate jobs not only don’t require much prior education or experience, but also have a clear advancement path in place. “We want to make sure there’s opportunity for career growth,” Berwick said. “We don’t want to put people into jobs that end up being a dead end for them.”

Grads of Life then does a “diagnostic” on the company and its culture, talking to executives and key leaders as well as conducting surveys with employees, looking for the types of education and resources that support opportunity employment. It then creates a blueprint for the company and provides implementation support, connecting the company with workforce trainers in its local area, for example. A good place for employers to start, Graham said, is often the local [Workforce Development Board](#).

“We firmly believe that a lot of jobs do not require a BA and that there are different avenues to living-wage employment in many industries,” Berwick said. “It’s about how do we think about talent differently, and who is talented and where we go to find that talent.”

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Overview of program

➔ Part Three



The basics of opportunity employment

➔ Part One

PRIVATE SECTOR

Alstom



Multinational rolling stock manufacturer Alstom uses its relationships with high schools and post-secondary institutions to recruit talented young employees; its focused retention efforts rely on training, succession planning and inclusion.

Interviewee: Matt Shick, vice president of human resources North America

Recruiting

Alstom works to build close relationships with high schools, vocational programs, and colleges and universities across North America, including near its facilities. It sends speakers into schools to familiarize students with the company and what it does, and also provides equipment and scrap materials to allow students to get some hands-on experience with them. Alstom also attends job fairs and hiring events, provides tours for both students and interested educators, and offers mock interviews for students.

“We have targeted stops along our tours where they can really look at the equipment being used, because manufacturing isn’t just wrench-turning anymore,” Shick said. “There’s a lot of the higher-tech equipment for calibrating and testing and installations and painting and sanding, use of robots in certain areas, these 50-ton cranes that are operated remotely with a joystick. They love to see that.”

These school outreach activities have slowed since the onset of the pandemic in 2020, Shick said, but Alstom is still in contact with schools and receptive to their suggestions for ways the company can benefit their students. He also thinks the new normal might include more virtual events. “Everyone is so much more comfortable with the use of Teams and Zoom and FaceTime and what have you, so this is something that we could certainly modify and pick back up again, even if we’re stuck in this kind of environment.”

Alstom occasionally hires students straight out of high school, but it focuses its efforts on recent college graduates. “That’s been a huge source of employees for us,” Shick said. “Our locations are near some good universities that feed into our needs. So we’ve branded ourselves within these organizations, just to make sure students know who we are, what we do, and what we have to offer. ‘Alstom’ is not a household name because we don’t sell to individual consumers.”

New-hire program

Alstom hires many of its employees directly from college into a 4-year-old program called LEAD (Leadership Excellence And Development). Entry into LEAD typically requires a four-year degree with a GPA of 3.0 or better. These new hires are assigned a mentor, who helps them identify their interests—for example whether

Alstom (cont.)

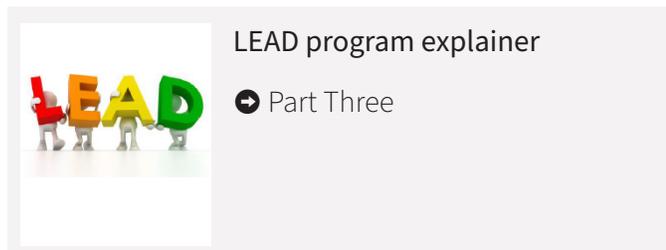
they want to go into management or would rather become an expert in a technical field. They then spend the next two years rotating among different functions at the worksite.

At the end of the two years, they give and receive feedback about what they've learned, make a presentation to senior management, and then are assigned a permanent role within the company based on their skills and interests.

Shick has been pleased with retention in LEAD, which he said was about 99 percent, and also the career trajectories of those who have been through the program. "I don't think there's been one candidate that's still with us that hasn't advanced in the company," he said.

Alstom had hoped to evolve the program so that, instead of being linked to one site, LEAD participants could rotate among job functions and locations in Alstom's U.S. and Canadian facilities. That plan also has been slowed by COVID but is expected to go forward in the coming years.

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Training, retention and succession planning

As part of their orientation to company culture, new hires are immediately introduced to Alstom's various training and retention programs.

One key program is Alstom University, which is a virtual, on-demand learning solution available to all employees. The classes are not limited by function, meaning that employees can try anything that might help them on their current career path—or a different one. Those classes are supplemented, Shick said, by job shadowing opportunities. "It's an interest appetizer, if you will, to whet their appetite on different areas of the company," he said.

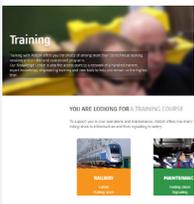
Certified, world-class technical expert development programs in manufacturing and engineering are available at higher levels of training, allowing employees to move from entry level to local expert to senior expert to master expert. The requirements of these programs are much higher, Shick said, but "every year we put more and more people through these. Our employees strive toward this, and we support them to achieve that."

Alstom also offers project management and management development programs, as well as coaching and mentoring. Employees at every level are also encouraged to think about training their own successors, Shick said. "The idea of having a successor is so that when the next opportunity comes for you, we have somebody

Alstom (cont.)

ready to take your role,” he said. “It’s all part of that circle of development. In order for you to move, we’ve got to have somebody else ready to move as well.”

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[Alstom training website](#)

External link

Diversity and inclusion

Alstom has a number of special-interest groups for women, minorities and other disadvantaged populations within the company that allow employees to network, plan events and find support. One of the largest of these is Alstom Women of Excellence or AWE. “This helps people build and expand their networks, and that’s vital in an organization this big,” Shick said. “It’s great to know people, but it’s excellent when you know people and can leverage those relationships to make things more successful for everyone.”



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The company is transparent from the beginning about all these programs, Shick said, so that employees know Alstom is committed to their growth and success. “There’s a lot of time and money invested getting the right people, so when we get somebody on board we want to keep them,” he said. “We want to make them successful.”

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Diversity and Inclusion Charter

External link



Global All Abilities Toolkit

External link

Cummins



Cummins, a multinational provider of engines, power systems and components, uses its recruiting programs to hire the best and brightest, including vo-tech students in high schools near its facilities and apprentices who earn an associate's degree.

Interviewee: David Taylor, vice president of Service

High school program

Cummins partners with high schools near its facilities that have automotive or diesel vocational programs to find students to participate in its innovative School to Work program. After reaching the age of 16, usually in the summer after their junior year, students are eligible to work in Cummins shops, under the close supervision of adult mentors. Students are paid and work up to 19 hours per week during the school year, and up to 40 hours per week in the summer.

“They may be cleaning parts one day or scraping gaskets or helping to disassemble an engine,” Taylor said, “but they’re working with an adult the entire time they’re in a shop.”



One thing that sets School to Work apart, Taylor said, is its high academic standards. Students must maintain a 2.8 GPA to remain in the program, which generally eliminates about half the interested students immediately. “A lot of students are in vo-tech because they don’t like the math, the English, the reading,” he said. “But we’ve

Cummins (cont.)

learned that to be a good technician today, you have to be able to read, understand, comprehend and quickly apply to be efficient, and the academics play a part in that.”

Cummins’ program started in Columbia, South Carolina, and has expanded to eight more high schools since then, with plans to launch eight more in the coming year. The company typically takes just one or two students each year from each of the high schools it works with, and the program is very competitive. Cummins’ goal is to transition its high school students to its certified apprenticeship programs and then into full-time employment.

Taylor generally reaches out directly to vo-tech teachers to generate interest in the program, and he goes into the schools to give a presentation to staff and students who are interested. So far, he said, “we haven’t had a school say no. The high schools love it.”

Future plans include expanding the program to more of Cummins’ 180 U.S. and Canadian locations, as well as trying to reach students who are interested in mechanics as early as middle school, to generate early interest in the program and encourage them to keep their grades up.

Apprenticeships

Cummins provides a four-year, award-winning registered apprenticeship aimed at developing and training top talent. The program allows high school graduates with a GPA above 2.8 to earn an associate’s degree in diesel technology in the first 2½ years, alternating between classes on the college campus and on-the-job learning at a Cummins site. The training is all paid, including transportation between sites, hotels, meals and tuition. The company currently has partnerships with Central Piedmont Community College in Charlotte, North Carolina; Vincennes University in Vincennes, Indiana; and Salt Lake City Community College in Salt Lake City.

For the last 18 months of the program, apprentices pursue a more specific career path within Cummins, choosing from one of five specialties. “If someone has the demeanor to be a supervisor, they may start receiving some basic management training,” Taylor said. “If they want to move into the marine industry, then they would start being trained on marine products or high horsepower products.”

At the end of the program, successful apprentices are hired full time with benefits, with the hope that they will stay with the company and continue to move up the career ladder. As with the high school program, Taylor said, high academic standards set the participants up for success.

“I strongly believed we needed a program where we’re going after top talent, so we can have people who are promotable and customer-facing,” he said. “It’s quite an investment for us, so finding that right person that wants to make a career with Cummins is absolutely critical.”

▼ RELATED MATERIALS



Technical Apprenticeship Program and School-to-Work brochure

➔ Part Three



Halmar International is a 180-employee civil construction management firm that focuses on college and university recruiting as an overall strategy to find and retain diverse talent.

Interviewee: Alan Wadman, vice president of human resources

College internships

Halmar participates in college and university career fairs to interest civil engineering students in its internship program, typically bringing to the events both an operations manager and a few young engineers. Having near-peers available to talk about their experience with the company and answer questions is useful to the students, Wadman said, and also helps Halmar find candidates who seem like a good cultural fit.

To ensure a socioeconomically diverse candidate pool, Halmar makes sure to recruit from both major universities and smaller colleges near its New York City–area headquarters. “Our practical experience is that it’s most beneficial to attract a mix of talent from very renowned schools, and from some local colleges with good engineering programs,” Wadman said. “We have found that first-generation college students have worked hard to get into an engineering school, and they are hungry to succeed.”

The company hires about 10 paid interns in the summer. Interns typically begin after their freshman or sophomore year and work full time, either as estimators or as field engineers. “We like to have them work two or three years for us as an intern,” Wadman said. “That gives them a good opportunity to assess our company, and we get to assess them as a candidate for full-time employment.”

Retention programs

Retention begins with an employee’s first day at work, Wadman said. “You want to have really thought through and planned an individual’s onboarding—it’s the idea that you only get one chance to make a first impression,” he said. “And it sounds simple, but it doesn’t always happen that way in some companies.”

Since Halmar tends to hire a cohort of college graduates in the late spring, it offers them what it calls its Young Leaders Program. The new hires get together once or twice a month to network and also hear presentations from senior leaders in the company. “They’re all starting at the same time, so they’re all having the same common experience, and that is something a young person never forgets,” Wadman said. “It allows us to help them both build relationships and understand the bigger picture with regards to what the company’s goals and objectives are.”

Here are a few of Halmar’s other suggested best practices for retaining young employees:

- **Continuing education.** Assisting employees with obtaining professional certifications and advanced degrees is a win-win, Wadman said. “When you have more employees becoming subject-matter experts in their field, that can only help us in the long term from a business perspective.”
- **Inclusive benefits.** Competitive wages and benefits are vital, Wadman said, and he also recommends benefits that give employees flexibility. For example, companies should consider including personal days

in their holiday benefits “so every individual has the opportunity to take a holiday on a day that means something to them from a cultural, social or religious perspective.”

- **Inexpensive perks.** Making employees feel like they’re more than just workers “is not a matter of money,” Wadman said. Little things like hosting on-site flu shot clinics or offering public recognition for a job well done can go a long way toward keeping employees satisfied and bringing teams together.

HDR



HDR is an employee-owned design firm involved in transit and passenger rail projects globally and supports workforce readiness initiatives at several levels.

Interviewees: Tom Waldron, global director, Transit; Joslynn Hon, Director of Learning & Organizational Development; Brian Hoppy, Cross Sector Services director and HDR Foundation Board of Directors chair; and Heather Catron, director of Federal Transportation

Recruiting

HDR supports workforce engagement and development efforts through active participation in initiatives focused on the education of young people about potential careers in transit. Working with APTAU, HDR is a charter sponsor of [aiya+](#) and is involved in company initiatives and many local community initiatives to raise awareness about career opportunities in STEM and transit. “At HDR, we’re certainly out there promoting awareness of transit in all cross-sections of our society and proving its relevance—whether on Capitol Hill or in a middle school, handing out engineers caps for a kid to take a first train ride,” Waldron said.

A critical avenue of awareness for HDR is the outreach it does through employee volunteers and its [HDR Foundation](#), which provides grants that align with HDR’s areas of expertise: education, healthy communities and environmental stewardship. “Every grant is sponsored by an employee who is personally involved with the recipient organization,” Hoppy said, “and the grants are funded by employee donations.”

That personal involvement presents many opportunities to engage with students and communities about the importance of the sciences, Hoppy said. For example, after giving a grant to install three real-time water monitoring and analysis devices in Philadelphia-area streams, HDR employees led tours for students from kindergarten through high school to show them the devices and explain the science.

“Anytime we’re making these donations, we’re also connecting those local communities to their environment and connecting especially the youngest members of those communities to science and engineering,” Hoppy said. “We’re giving them tools that will hopefully spark their interest to join the sciences.”

HDR has donated nearly a half-million dollars to STEM-related projects through its foundation in the past three years, he said.

Training, mentoring and career pathing

Learning and organizational development have been a priority for HDR, Hon said, and part of the strategic planning was to better articulate just how many developmental opportunities are available in the company. HDR has an internal training center called HDR University, but employee development is really a much larger umbrella including mentoring and work experiences, she said.

HDR recently launched a tool to help employees more easily find these resources. “It works kind of like a web page, but in truth it’s like a billion-page interactive PDF,” Hon said. “As you’re looking through the different areas of career development that are available, you can get directed to the right place for more resources or connect directly with the people who are responsible for the program.”

One of the unexpected benefits of dealing with career development during a pandemic, Hon said, is that it has forced the company to think through the best ways to take its learning and mentoring offerings online and keep them meaningful.

“It’s really broadened the opportunity and the scope and therefore the potential impacts and value on a large scale. It’s been really exciting to think about all of these new people that we’ve been able to reach with content that they may not have had immediate access to,” she said. “In terms of what we’ve seen from our learners, they’ve been so willing and ready to engage, not only with virtual content but with one another in the virtual environment to find ways to make those connections and establish those networks that are so critical for growth and development in a company the size of ours.”

Diversity and inclusion

The company has worked over the past year to formalize inclusion and diversity efforts across HDR via its Transportation Business Beneficial Collaboration Working Group, a diverse group of HDR stakeholders tasked with working on what they call the four C’s: career, commerce, culture and community. The “career” piece is centered around talent development including recruitment, retention and working with young professionals and staff who are traditionally underrepresented, to help them think in terms of career paths, and to identify and pursue successful career paths within HDR. The “culture” piece is about focusing on inclusion and diversity to ensure that HDR provides a welcoming workplace for all.

“There’s a lot of data out there that shows that the more diverse ideas, opinions and backgrounds you bring to the table, the better your end results are,” Catron said. “From a recruiting perspective, when trying to get younger people interested and engaged in our industry, that’s a value that’s really important. When you’re interviewing folks, they want to know: ‘What does HDR do for inclusion and diversity?’ It’s important work that makes us better.”



Infrastructure solutions firm HNTB has a culture of commitment to the industry and the development of people, which informs everything from its hiring philosophy to its outreach efforts around STEM education, starting with students as young as sixth grade.

Interviewee: Ronnie Hakim, transit/rail market sector leader

STEM education

HNTB has actively engaged in STEM initiatives aimed at raising awareness of engineering and related careers among middle school and high school students throughout its 70 offices around the country.

Among those varied initiatives is the after-school SPARK program, which has been conducted in Chicago and Los Angeles. The free, multi-week program is for students as young as sixth grade. It engages participants to learn about engineering, exposes them to a wide variety of career possibilities and puts the work of engineering into a real-world context.

“If you want to get a teenager excited about something, there’s nothing like taking them down below ground into a brand-new project that’s being built, being able to see the impact of a tunnel boring machine, being able to understand what it takes to maintain a bridge,” Hakim said. “Those are the kinds of things that I think leave really clear impressions on people.”



Courtesy of HNTB

HNTB also has hosted a “Shadow an Engineer Day” for students in Houston and has provided mentoring to students at [Yvonne A. Ewell Townview Magnet Center School](#) in Dallas.

STEM education is part of HNTB’s culture, Hakim said, and a way for employees to give back to their communities. “I view it as a win-win,” she said. “It’s a win both for employees, who use their time and resources to work at these events or work with various people—students, interns—as well as a win for the students

HNTB (cont.)

and interns who get introduced to a world that they may not have had direct access to or have not seen the opportunity in.”

▼ RELATED MATERIALS

	<p>SPARK article from Designer magazine</p> <p>➔ Part Three</p>		<p>SPARK application</p> <p>➔ Part Three</p>
	<p>SPARK LA Yearbook</p> <p>➔ Part Three</p>		<p>Plan for 2019 SPARK partnership with Chicago Public Schools</p> <p>➔ Part Three</p>

Peer mentoring

HNTB is intentional about offering opportunities to minority- and women-owned businesses, small-business enterprises, and other types of disadvantaged businesses with its Partners Program. This is a structured yearlong program in which HNTB assists these potential partners by mentoring them in the certification and prequalification processes, helping them to understand and navigate the procurement, enhance their technical expertise, expand their recruiting skills, learn about how to gain access to funding sources, and expand their relationship networks.

“Specialized businesses are eager to learn more about how they can grow as a consultant,” Hakim said. “Networking events hosted by HNTB bring smaller firms together with transportation agencies, prime contractors and banking representatives. It creates these great opportunities for people to make connections and know who they can rely on and learn more from. These connections benefit the entire industry,” she said.

College internships

HNTB offices also host a significant number of interns—in fact, it had 150 of them around the country in the summer of 2020. “When you consider the challenging time that we’re in with all the challenges COVID-19 has presented for the work environment, for HNTB to have maintained its commitment to these young people to say, ‘We’ll be here for you. Come on, we’re going to have a good, robust internship program for you’—I thought it was really remarkable,” Hakim said.

Interns are recruited from colleges and universities around the country, with the goal of giving students a good sense of what the HNTB work experience is like. They’re placed on teams in their area of study and given

HNTB (cont.)

real projects to complete. Occasionally, a high school student from one of the outreach programs is given the opportunity to intern as well.

Outreach to high school and college students fits well within HNTB's culture of commitment to the future of the industry, Hakim said. "We know this is important," she said. "Continuing to reach out to our communities in these various organizations and to keep our doors open to these kinds of programs and student engagement opportunities, both at the high school and at the college level, is a best practice and one that we've been pretty invested in."

Hiring and referrals

HNTB is especially proactive in seeking new talent, Hakim said. The firm stays in touch with successful interns and other top talent and works hard to recruit them. "Unlike many other firms, HNTB doesn't buy other firms in order to grow its workforce," she said. "We are very focused on individual employees. We recruit people, not companies."

The firm also provides a financial incentive to employees for successfully referring new hires; 30 percent of all new employees come to HNTB through this channel. Apart from the financial incentive, Hakim said, "current employees are always motivated to recruit good people. You always want to have good people working with you on your team, good people you can rely on to help you support a project."

Jacobs



Jacobs adapted quickly to the challenges of the COVID-19 pandemic, taking its large college internship program completely virtual and designing its own 3D online "recruiting booth" to keep its pool of candidates strong.

Interviewee: Kaitlyn Wurzbach, global future talent lead, Americas

College internships

In the U.S. and Canada, Jacobs hires hundreds of summer interns, typically college students in their sophomore, junior and senior years, for a variety of robust experiences throughout the company. In 2020, with the pandemic in full swing, it decided to continue its commitment to the program and hired 450 interns for an all-virtual experience.

Every intern is assigned a trained peer mentor, and the students participate in Jacobs' Global Call Series, featuring executive leaders speaking on topics including sustainability, innovation, inclusion and diversity, and business acumen. At the end of the 10- to 12-week program, each intern gets paired with another intern from a different area of the company to share their experiences, and they also make a 10-minute presentation about what they've learned.

Jacobs (cont.)

One of the goals, Wurzbach said, is to expose the interns to a wide variety of career opportunities within Jacobs. “We try throughout the summer to kind of cross-pollinate with some of the diverse experiences you find in a company our size,” she said. “We give students exposure outside of the set discipline they have studied so far. I think it opens their eyes to what they could do in the future.”

Jacobs also has a promising new partnership with the [National Business & Disability Council](#) to hire five interns for next summer through its Emerging Leaders Internship Program. “NBDC has partners at over 400 universities across the United States. They send out the job descriptions that we’re looking for, and they’ll send us back a slate of candidates,” Wurzbach said. “So far we’ve been blown away by our engagement with them.”

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Internship flier

➔ Part Three



“Ever Wonder What an Internship During a Pandemic Looks Like?” blog post

➔ External link

New-hire training

Jacobs features a two-year, self-directed program aimed at helping recent college graduates develop their skills and transition into their full-time roles with the company. The Graduate Development Program offers 218 hours of total training, split between on-the-job training, mentoring/coaching, and formal learning courses. In addition to skills development and networking, one of the goals is to provide graduates exposure to a variety of business units and functions within the company.

“We’ve seen this be a great asset to retention,” Wurzbach said. “A lot of times students will come out of college not 100 percent sure what they want to do. They settle on what they studied, they get into the role, and in about three years they’re looking for another company. With these programs, we’re enabling them to realize that there are opportunities within Jacobs that they can go and build a career, even if it’s not what they studied. And I think honestly for this next generation that’s coming into the workforce, they like that flexibility.”

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Graduate Development Program overview

➔ Part Three

Jacobs (cont.)

Recruiting

With COVID-19 impacting its recruitment efforts, Jacobs' Atlanta visual media team created an online recruiting tool it calls the Virtual Recruitment Booth. "In the days when we had in-person events, we would go pass out business cards or pens or information for students to connect with us," Wurzbach said. "This is a glorified virtual version of that. They can come anytime into this 3D room and learn a little bit more about our company."

The virtual experience has resonated well with young job candidates, she said. "It's almost like a video game. We've gotten great feedback from people who say, 'This is so much better than having to go through a long list of documents'—it's a fun way to absorb the information."

Additionally, Jacobs is a corporate affiliate partner with the National Society of Black Engineers, which gives it access to attend regional events put on by the NSBE university chapters. Jacobs also targets recruitment efforts at historically black colleges and universities that have programs aligning with its hiring needs.

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Jacobs Virtual Recruitment Booth

↗ External link

New Flyer of America



Heavy-duty bus manufacturer New Flyer of America, a subsidiary of NFI Group, has kicked off a sweeping workforce development and social-good initiative focused on providing opportunities for underserved and underrepresented communities.

**Interviewees: Janice Harper, executive vice president, Human Resources, NFI Group;
Herb Clark, vice president, Human Resources, New Flyer;
and Lindy Norris, director, Marketing and Public Affairs, New Flyer**

Workforce development

Facing the same skills gap and retirement issues as many transit agencies, New Flyer has undertaken a workforce readiness effort that, over the years, has evolved into a much broader mission.

"With the rapid adoption of zero-emission propulsion, we're feeling the squeeze of the labor demands on electrical technicians, electrical capabilities, electrical engineers," Norris said. "Everyone across the industry is

New Flyer of America (cont.)

feeling this squeeze. Transit agencies, manufacturers, no matter who you are, everybody is in need of electrical skills.”

New Flyer’s initial response to this was to create a robust training framework for employees, making sure its builders were equipped to meet changing technologies and customer needs. But as it looked at its recruiting pipeline, the company saw an opportunity to do more.

“Working with external stakeholders and partners really helped us to continue to mature on this journey,” Harper said. “We realized we needed to work on social issues, governance, diversity and inclusion. When you think about transit and public transportation, it’s really meeting the needs of our communities. And we found that there was a really strong need to serve underrepresented and underserved communities across a number of fronts.”

New Flyer forged a close partnership with the nonprofit [Transportation Diversity Council](#) and in 2017 began a pilot project at New Flyer’s Ontario, California, facility—setting a target to have 40 percent underserved representation in that workforce. TDC’s partnership was essential in helping to reach a number of populations that the company otherwise might not have been able to reach with its recruiting process, Clark said.

“One key is that we don’t have the expertise or skill set internally to go out and network with the underserved populations like TDC can do for us,” he said. “They’re talking to veterans, homeless people, previously incarcerated people, single parents, people who have been on unemployment for a long period of time. What TDC brought to the table for us as our partner was the ability to identify really good people that have experienced unfortunate circumstances.”



Pleased with the success of the Ontario program, New Flyer then made an effort to better articulate its broad vision under what it called the [Community Benefits Framework](#), a national initiative to build on its efforts to support the employment and career development of people from all walks of life. And New Flyer has now announced a major regional initiative under that national umbrella, called the [Anniston Workforce Development Program](#), focused on benefiting the local community around its facility located in Anniston, Alabama.

The AWDP includes not just diversity hiring targets, but also training, the launch of an employee engagement committee, a commitment to partnering with DBEs, educational supports, community partnerships, and rigorous monitoring and oversight. Another critical component is apprenticeship and pre-apprenticeship

New Flyer of America (cont.)

programs, including the Electrical Technician Apprenticeship Program, an intensive four-year program scheduled to launch in early 2021.

The commitment to training and development means anyone with the right attitude can be developed into a skilled craftsperson, Clark said. “Our experience in Ontario has shown that if we find these individuals and give them an opportunity, they will seize it. Some of the best employees in our company now work there,” he said. “This is not something we want to do for accolades for New Flyer. This is the right thing to do socially and for our communities and for our company.”

▼ RELATED MATERIALS

	<p>Community Benefits Framework</p> <p>➔ External link</p>		<p>Environmental, Social & Governance Report</p> <p>➔ External link</p>
	<p>“Manufacturer launches workforce development program in Alabama” article</p> <p>➔ External link</p>		<p>“New Flyer of America to launch innovative workforce development program in Anniston” article</p> <p>➔ External link</p>
	<p>New Flyer’s approach to creating an inclusive workforce</p> <p>➔ Part One</p>		

Employee training and development

A critical piece of New Flyer’s Community Benefits Framework is a strong commitment to its technical training and employee development programs.

New Flyer has for several years had a training framework for employees called the NFI Learning Institute (which now serves all NFI subsidiaries). In 2019, the institute delivered more than 155,000 hours of training via classroom learning, webinars, on-the-job training, recorded sessions and e-learning—including everything from safety basics to leadership and technical training. Because of the COVID-19 pandemic, much of that training has moved online, but the commitment has remained: New Flyer alone completed 75,000 hours of training as of October 2020, despite the majority of its manufacturing facilities having idled for two months earlier in the year.

New Flyer of America (cont.)

Before moving into technical skills, the company focuses on what it calls “core certification,” basic training essential to all its manufacturing jobs, such as blueprint-reading, measurements, safety and problem-solving. With the assistance of partners including TDC, the company also ensures that all employees have the basic life skills they need to be successful, which it calls “job relations.”

“The average employee will often come from circumstances where they are pretty well-equipped, but what we are doing in these pilots is looking to see how we can augment that,” Harper said. “We look at soft skills development, things like financial health, problem-solving, dressing for safety, and also mental well-being, which is really important with what has been going on through this pandemic emergency.”

Partnerships with educational institutions are another critical piece, Norris said. “In each one of the areas where we have major manufacturing facilities, we’re very conscious to develop tight partnerships with local colleges, universities and high schools,” she said. “We work closely with them to determine how best we can develop their curriculum with them, and how we can help alleviate some of the job and labor demands of the local community, while also lifting the community by providing skills.”

The end result of the investment in training, Clark said, is a focus on hiring internally whenever possible. “It’s important that we give folks skills that can be transferable to other, higher-paying jobs within the organization,” he said. “So we give our employees opportunities to move up, and that of course has a ripple-effect down, which creates a vacancy at a lower level that is easier to recruit.”

External training resources

New Flyer also offers external training resources that can be used by transit agencies, including the following:

- **Vehicle Innovation Center:** Established in 2017, the [VIC’s mission](#) is to “advance bus technology through sustainable research and development, fresh innovation, progressive manufacturing, and bold thinking,” as well as to foster dialogue, education and innovation on the topic. Because of the pandemic, the [VIC has taken all its offerings online](#) at no cost, Norris said. “Already, we’re seeing enrollment for our fall series near quadruple what an in-person session would look like,” she said. “This is something that helps everyone ready their workforce, and it’s the right thing to do for the industry. When they’re more skilled and more advised in how to maintain and deploy a successful zero-emission fleet, everybody wins.”
- **New Flyer Institute:** New Flyer has worked closely with transit agencies and suppliers to develop training resources for its New Flyer Institute, which can be offered as classroom and hands-on training or via e-learning. The company has turn-key training solutions but can also develop customized courses on any transit-related topic.

▼ RELATED MATERIALS

	<p>Vehicle Innovation Center brochure</p> <p>➔ Part Three</p>		<p>New Flyer Institute brochure</p> <p>➔ Part Three</p>
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Switzerland-based rail manufacturer Stadler has strived to meet its own skilled workforce needs as well as contribute to the community in its new U.S. location by creating an innovative apprenticeship program that engages students beginning their senior year in high school.

Interviewees: Martin Ritter, CEO, Charlotte Thalhammer, marketing and communication manager, and Colby Steorts, TRAC lead trainer

Apprenticeships

A dual-education model that's widespread in Europe but particularly well-executed in Switzerland is the cornerstone of workforce development in Stadler's home country. When compulsory schooling ends for 15- or 16-year-old Swiss students, they can move into either an academic, traditional high school program or a vocational track split between traditional schooling and work experience that provides [21st century skills for in-demand jobs](#). About 70 percent of students choose the apprenticeship program.

This is the educational model familiar to Swiss-based Stadler, which has about 11,000 employees worldwide. When Stadler opened its U.S. manufacturing plant in Salt Lake City in 2017, its biggest challenge was quickly finding a skilled workforce in a country that relies much more heavily on training employees on the job. "At the end of the day, we were used to a certain baseline of education in Europe in terms of skills," Ritter said.

So Stadler set out to transform the educational system in its new home, creating an apprenticeship model called the Talent Ready Apprenticeship Connection (TRAC) with the help of partners including Salt Lake Community College, the Governor's Office of Economic Development, Salt Lake City School District and the Salt Lake Education Foundation. The group created two tracks, Automatic Technician and Production Technician, with the goal of creating a "baseline education with a theory and a practical part," Ritter said, that a student could bring to any number of different careers.

The first TRAC class of 15 high school seniors began in the fall of 2019. Students attend high school on a block schedule and work at Stadler on opposite days. They earn \$10 an hour for their work, with the first year consisting of both training and skilled tasks on the worksite.

After graduation, students spend years two and three attending courses at Salt Lake Community College. Their work hours and pay increase each year, and at the end of the program they complete a final project in order to graduate with an associate's degree. Successful apprentices will have the option to continue working at Stadler when they graduate at a starting rate of \$22 an hour, which is slightly above the average hourly pay rate in Utah.

"This is a debt-free education," Thalhammer said, "and so it helps students not to have to choose between getting an education and supporting themselves. With our program they're getting both, and they're getting paid."

Stadler hopes to bring other industrial and corporate partners into the apprenticeship program in order to add more students and also to expand to different trades and skills. "We tried to really design the program as a framework so it's possible for anybody to join," Ritter said.

Stadler US (cont.)

Thalhammer said the key to expanding the current program—or applying the framework elsewhere—is that workplace partners understand the program’s true objectives.

“It’s not about cheap labor, and it’s not about recruiting large amounts of people out of high school,” she said. “But it’s really about building a workforce that’s going to help everybody in the future, including the person who’s actually going through the program. Essentially we’re changing the way education works here, and that’s really kind of revolutionary. Companies should view it as an opportunity to invest into their own futures and into the kind of labor pool that they want to have.”

▼ RELATED MATERIALS

	<p>TRAC visual</p> <p>➔ Part Three</p>		<p>Apprenticeship curriculum map</p> <p>➔ Part Three</p>
	<p>Apprenticeship review form</p> <p>➔ Part Three</p>		<p>Automation curriculum</p> <p>➔ Part Three</p>
	<p>Production curriculum</p> <p>➔ Part Three</p>		<p>Stadler US’s approach to apprenticeships that change lives</p> <p>➔ Part One</p>

School and community outreach

Stadler does additional school and community outreach that helps to attract students to not only its apprenticeship, but also part-time jobs, internships, field trips and job shadows. Here’s how the company goes about reaching out to its various target audiences:

- Counselors and teachers:** For the apprenticeships, “we try to get their attention junior year,” Steorts said. “So far we’ve targeted students who are in mechanical classes, science, welding, auto body—ones who are showing interest in the electrical or manufacturing fields.” As lead trainer, Steorts goes into classrooms to give presentations and answer questions.

Stadler US (cont.)

- **High school parents:** Parent buy-in is a vital part of recruiting teens, Ritter said. “Usually students are all over it, once they see the trains and technology. But the challenge is to convince the parents that this program can be a first step to a successful career for their kids.”
- **Wider community:** Utah Gov. Gary Herbert is a [big supporter of the program](#), so his promotion and backing have been helpful. And Stadler is intentional about using its natural company milestones, such as completion of big projects, to hold open houses for the public.
- **Stadler employees:** Stadler also hosts “half-public” events where its employees can bring family and friends into the facility for tours and employee celebrations. Tours are one of the company’s biggest selling points, Ritter said, because the industry is so novel to most people. “In a lot of cases when people hear about building trains, they think of a steam locomotive,” he said.

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Parent night presentation

➔ Part Three



TRAC flyer for teachers and counseling offices

➔ Part Three

TRANSIT AGENCIES

Champaign-Urbana Mass Transit District



A successful community college partnership provides MTD with a steady stream of quality diesel mechanic interns. The agency also reaches out to students at both the high school and early college level in hopes of improving its operator hiring.

Interviewee: Karl Gnadt, CEO and managing director

College internships

MTD has a long-term relationship with the [diesel power program](#) at Parkland College and almost always has a paid intern from its two-year associate's degree program. The program boasts a 100 percent employment rate for graduates—and many of those students land at MTD.

“I think over the last probably 25 or 30 hires that we’ve done in our maintenance department, maybe all of them have been through that program,” Gnadt said. “Some we’ve had as interns, and actually some of the instructors in the program are also working for us now.”

The agency sometimes accommodates students coming out of such two-year degree programs by hiring them at the age of 20 and then engaging them primarily in training and maintenance tasks until they’re old enough to receive their CDL at 21 and move into a full-time role. As a result, the Maintenance Department does not struggle to find skilled workers, Gnadt said.

High school outreach

MTD also does outreach to younger students to make them aware of the opportunities at the agency:

- **Internships:** MTD acts as a job site for summer interns through a program run by the Champaign Unit 4 School District. The agency generally takes five or six interns every summer, with their salaries are funded jointly by MTD and the school district. These students primarily are tasked with utility work in the Maintenance Department, “pulling weeds, mowing grass, painting, washing, cleaning, that kind of stuff,” Gnadt said.
- **Job fairs:** The agency attends job fairs aimed at both high school and college students, where it primarily advertises for bus operators, which is a position MTD has difficulty filling. Students are a few years from being able to pursue these jobs, but “it gets it out in front of people,” Gnadt said.

Champaign-Urbana Mass Transit District (cont.)

▼ RELATED MATERIALS

 <p>Apply online at www.mtd.org Currently accepting applications for: Bus Operator C-CARTS Operator Maintenance II</p>	<p>Career fair flyer</p> <p>➔ Part Three</p>	 <p>Opportunities MTD is seeking applications for Operators. Education Requirements High School Diploma or equivalent is required. Experience Requirements No driving experience or experience needed? We need it! Work Hours Work 20hrs/week from 6am-6pm on weekdays. MTD requires seven days a week, six weeks and some holidays, and the position may require work outside of regular hours. A minimum of 20 hours is required. Other Information Positions are available on a non-exclusive basis. A minimum of 20 hours is required. A valid MTD position, candidate for this position must pass a pre-employment and drug test.</p>	<p>Career fair informational handout</p> <p>➔ Part Three</p>
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Chicago Transit Authority



CTA’s robust internship programs include real-world work experience as appropriate but are intensely focused on professional development. This commitment to continuous growth opportunities continues as students move from intern to employee to supervisor and beyond.

Interviewee: Geisha Ester, vice president, Training and Workforce Development

High school summer internship program

In 2019, CTA opened its eight-week summer internship program to younger high school students, from rising sophomores through rising college freshmen. The 2019 program included about 150 students, with a heavy recruitment focus on at-risk and high-need teens, and those interested in trade careers.

The program’s main objective is to teach business and professionalism. The experience begins with a mini-job interview process and includes one day per week of formal classroom instruction covering business norms, professionalism, resume-writing, team-building, conflict resolution, computer skills, communication skills, and other work-readiness topics.

Another weekday is reserved for impact events, including attending CTA board meetings, participating in a lunch panel discussion with executives, field trips to learn about a specific department, and participating in a town hall meeting with community leaders to learn more about career paths.

The other three days a week are focused on mentorship and work experience. A few students worked in the warehouse and shop areas, but primarily the students work at CTA headquarters performing administrative tasks. “They’re filing, they’re making copies, they’re doing data entry,” Ester said.

The experience ends with an intern fair where students can show off their capstone projects, usually work deliverables, as well as an awards ceremony to acknowledge their achievements and those of their mentors. “It’s more about developing them to become work ready than necessarily the work product itself,” Ester said. “But our students did some great work.”

Chicago Transit Authority (cont.)

2020 virtual high school summer internship program

Before the COVID-19 crisis struck, CTA had already decided on “A Ride to Resilience” as its theme for the 2020 internship class, and it couldn’t have been more appropriate.

Knowing that they would not be able to bring interns on-site, Ester said, “We started out on this goose chase of ‘What do we do with the students?’ and where we landed was, ‘No, let’s keep the plan. We know it works, and we know it’s good. Let’s just determine how to execute it differently.’ ”

Part of the solution was to enlist the help of partners to provide unique virtual experiences for different cohorts of students:

- **Introducing Youth to American Infrastructure (iyai+):** For two days a week, students would spend virtual time with iyai+ staff, who taught them about topics such as infrastructure, water systems and electrification. “We would tie it all back into the transportation industry,” Ester said. “Saying that ‘All these things are possible, and they’re possible right here in transportation. And more importantly, they’re possible right here at CTA.’ ” iyai+ also donated 25 tablet computers to students who needed them to assist CTA in furthering its mission of serving the students most in need.
- **Marwen Arts for Youth:** Students interested in visual arts and photography got art instruction through this nonprofit group and then produced art that will eventually be displayed at CTA stops. For their capstone project, these students hosted a virtual art gallery with the theme of showing how CTA’s services make the community more resilient.
- **The Ideal Candidate:** This nonprofit training academy, which is focused on teaching high school students how to enter the workforce, extended its services to CTA interns, teaching them resume-writing, interviewing, public speaking and presentation, among other skills.
- **Toastmasters International:** This nonprofit educational organization promotes communication, public speaking and leadership. Students in this cohort held a competitive public speaking event for their virtual capstone.
- **The Joffrey Ballet:** The ballet taught students about the art of street performance and how to get the necessary permits to perform. Students in this cohort took videos of their socially distanced dance performances at CTA stops and presented those as their capstone.

Just over 100 students took part in the paid internship, and 92 percent were still attending virtually at the end of the program.

▼ RELATED MATERIALS



Virtual internship capstone flyer

➔ Part Three

The flyer is titled "INTERN VIRTUAL TAKEOVER" and "AUGUST 3 - 6, 2020". It features a grid of images showing various activities and participants. The text on the flyer includes "VIRTUAL INTERNSHIP TAKEOVER" and "AUGUST 3 - 6, 2020".



Ester’s steps to implementing a workforce readiness project

⬅ Part One

The image shows a blue and white CTA train on a track, with a person standing on the platform. The text "Ester’s steps to implementing a workforce readiness project" is overlaid on the image.

Chicago Transit Authority (cont.)

Hiring high school students

Ester said CTA continues to explore and identify entry-level jobs that students could take right out of high school and has identified three that it wants to focus more effort on.

- **Customer service assistant:** This is a 32-hours-per-week job that comes with benefits. To find suitable candidates, Ester's staff has worked with CTE schools to identify hospitality students. "It sounds kind of strange," she said, "but it gets us the customer service angle we're looking for until we can build out the transportation track."
- **Coordinator for administration/administrative assistant roles:** For these jobs, CTA is looking at how to partner with high schools to help them build an administrative track for students who are interested in business but not immediately college-bound.
- **Bus mechanic:** This is a particular challenge because a CDL with a passenger endorsement is required for that position, so mechanics can't be hired until they are 21. Many high school students are interested in auto mechanics, though. The agency has experimented with internship programs where students learned the nomenclature for bus parts, take OSHA classes and get basic tool training. CTA also explored a partnership with a junior college to implement a work-study program for its auto mechanic students, but that is being recalibrated after the college lost its funding for the program.

"There's a real need for students who are not going to college immediately after high school and are not necessarily prepared to go to a trade school," Ester said. "We are still working to develop partnerships to successfully implement this bridge for them."

The agency is working internally to explore how high school graduates can filter through a career path that would ultimately lead to them becoming mechanics but would initially enable them to gain some skills without the need to go out on road calls, which is the reason for the passenger endorsement of the CDL requirement.

"We're really pushing to make that connection," Ester said. "I know that's where we could have huge, huge impact on our community and with our at-risk and high-need students. They are interested in those mechanic programs and those diesel programs. It really is a barrier of age."

College internship program

CTA's year-round paid [college internships](#) for undergraduate and graduate students are extremely competitive, attracting about 4,000 applications for 70 slots. A summer version of the program draws 50 to 60 additional students from around the world.

The process begins with a detailed proposal from any CTA department wishing to hire an intern. The requesting department must identify its needs, the experience and skills desired in a candidate, the duties and responsibilities expected, and a mentor for that intern. "Our goal with having this robust proposal is to make sure that we're meeting the needs of the organization," Ester said, "but more importantly that our students have a robust experience, so we don't have students who are just doing odds and ends, but that it's really something that complements their education."

Chicago Transit Authority (cont.)

A committee reviews these department proposals to make sure they meet the program's high standards. Once approved, Ester's office recruits by reaching out to college career offices and also opens the positions through CTA's regular applicant system.

The model is similar to CTA's high school internships—work experience, professional development and mentorship—but with more emphasis on work experience at this level. College students work all over the organization, in disciplines including engineering, information technology, strategic planning, media communications, scheduling and service planning, urban planning, emergency preparedness, law, human resources, purchasing, and accounting. Students with experience in education even lead professional development classes for the high school interns, allowing the college students to get experience running a classroom. Like the high school program, the internship ends with a fair where students showcase their capstone projects and get the chance to network with company leadership.

“Part of their professional development is about what the industry calls ‘soft skills’ and we call ‘essential skills,’ ” Ester said. “But it's also about learning about the CTA. So they will go on tours to different locations. We would have department spotlights so they would learn about different departments. They know about our goal and our mission. They have an opportunity to learn not only about their department but about our organization and the industry as a whole.

“Employment at CTA is our desire, but it's not our end goal. It's this balance of, ‘Is this the right fit for your career?’ We want them to be introduced to transit. We want them to have careers in their industry. And we really do want them to be at CTA.”

Since mentorship is also such an important part of the program, CTA is intentional about developing mentors as well. “People have good intentions and they know their work, but they may not have the abilities necessary to mentor in the manner that we need for our interns,” Ester said. Mentors are taught how to give constructive feedback, what the mentoring relationship should look like, and how to interact with the students.

Ester is looking to take this program to the next level by starting to bridge the gap between an internship and employment at CTA. “That's the next phase in our program,” Ester said. “How do we create a bridge program that retains these students that the Hiring Department really wants—and the student really wants to be here—but also balance that with budget and them not having to remain an intern?”

Workforce development and retention

CTA President Dorval Carter Jr. was the vision behind the agency's holistic approach to workforce development, Ester said. “We're really excited to have a leader that recognizes workforce development is critical to our success,” she added.

CTA looks at workforce development in three phases:

- **Getting talented candidates to the door**, which is the role of the agency's Workforce Partnership Department. That includes internships, the second-chance program that trains workers from the criminal justice system, and community workforce development, which is an aspect that's still under

Chicago Transit Authority (cont.)

development. The goal, Ester said, is to figure out “where is the need in our community, and the need in the organization, and how do we pair them together to drive talent to the door?”

- **Horizontal development**, led by the Training and Instruction Department. This piece is about “What do you need today to do your job?” Ester said. “How do we train you up to be successful in the role you were hired in?”
- **Retention and development for future roles**, which is the job of the agency’s Learning and Support Department. It develops internal programs and external partnerships that have the vision of developing CTA’s workforce for next-level leadership roles. Employees in entry-level jobs such as bus and train operators can enroll in Foundations for Management, for example, a 12-week program for people interested in supervisory roles that provides job shadowing, practice interviewing, and lessons on managing self and others.

These three departments are under the umbrella of the recently reorganized Training and Workforce Development Department. And leadership training continues well beyond this, with opportunities for growth at every level of the organization to assist employees in their transit careers, whether at CTA or elsewhere.

Dallas Area Rapid Transit



DART partners with community organizations that target underserved youth to recruit interns for its high school summer program, and the agency works to develop its workforce, with training offered at all levels of the organization.

Interviewee: Jill Dickson, organizational effectiveness specialist

Internships

DART offers eight-week summer internships for high school students and college undergraduate and graduate students.

High school students are drawn from two community organizations: [Dallas Works](#) and the [All Stars Project Development School for Youth](#). DART departments that want to request an intern provide a job description and also pay the intern from their own budgets. (High school students make \$10 an hour and work 30 hours per week.) The agency currently has fewer than 10 interns every summer.

The college program is larger, with about 35 slots, and students are recruited through the agency’s normal employment channels, as well as through the [Handshake](#) app. “We also reach out to the individual schools, such as Texas Tech, because they have a large engineering department,” Dickson said. “They give us access online to their job grid.” Undergraduate students make \$15 an hour, and grad students make \$17.

Interns are all given a folder of information about the agency, including maps. They are trained in much the same way, and they attend weekly lunch-and-learn events together with a variety of speakers. Dickson said

Dallas Area Rapid Transit (cont.)

the younger students learn from the older ones. “One of the things we see as very helpful is including the high school students with the college and grad-level students,” she said. “Somebody from engineering can meet somebody from legal or somebody from finance.”

▼ RELATED MATERIALS



Summer internship overview for department use

➔ Part Three

DART Summer Internship Program 2019

Human Capital is getting ready for the DART Summer Internship Program from June 10 to August 2.

High School Students from the Mayor's Fellows Program will be participating in the program. Full-time undergraduate and graduate students across the agency. Students take part with other students and learn more about DART.

We are looking for students in the following disciplines: Accounting, Engineering, Criminal Justice, Business Information Technology. However, all courses of College students can apply for the program via DART.

Internship program announcement

➔ Part Three

College Intern Job Description

Under the direct supervision and monitoring of professional staff within a specified department, candidate will perform a variety of professional and support duties. This position is an entry-level position and is intended for students who are currently enrolled in college or have recently graduated from college.

College intern job description

➔ Part Three



Typical intern schedule and agenda

➔ Part Three

Date	Time	Room	Theme
02/01/19	9 am - 11:00 am	RQ Auditorium	Orientation
02/01/19	11:30 am - 1 pm	RQ Auditorium	Topic of Choice
02/01/19	11:30 am - 1 pm	*Chief Rooms 1C	Lunch with Leadership
02/01/19	11:30 am - 1 pm	*Chief Rooms 1C	Student Self-Reflection
02/01/19	12:00 pm - 2 pm	RQ Auditorium	Business Lunch/Networking
02/01/19			Supper
02/01/19			Exit Interview

*Reference Room 1C is located on the first floor DART HQ 1401 Pacific



Virtual intern schedule and agenda

➔ Part Three

Date	Time	Activity	Theme
7/13/2020	9 am - 10:30 am	Orientation	
7/13/2020	10:30 am - 1 pm	Lunch & Learn	Completion of Leadership
7/13/2020	12:00 pm - 1 pm	Lunch & Learn	Lunch with Leadership
7/26/2020	12:00 pm - 1 pm	Lunch & Learn	Business Writing
7/30/2020	12:00 pm - 1 pm	Lunch & Learn	Strategic Thinking
7/31/2020		Lunch & Learn	Conclusion

* All events will be taking place via Microsoft Teams.

Entry-level positions and training

DART has identified three jobs that students can apply for right out of high school, Dickson said: customer service representative, bus servicer and clerical worker.

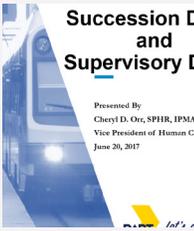
The agency also has a progressive series of training programs:

- **Succession DART:** This program was developed with a consultant to help train and retain up-and-coming leaders in the organization.
- **Supervisory DART:** In partnership with the Dallas County Community College and the Texas Workforce Commission, full-time employees in supervisory roles may apply to take a supervisory certificate program online. Successful applicants take six classes in three two-month modules, earning 18 credit hours.
- **Management DART:** This program for first-line managers allows employees to take courses at Southern Methodist University through its executive education program.

Dallas Area Rapid Transit (cont.)

- **Leadership DART:** A development program for midlevel managers.
- **Executive DART:** A certification from SMU for executives.

▼ RELATED MATERIALS



Succession I and Supervisory I

Presented By
Cheryl D. Orr, SPHR, IPMA
Vice President of Human C
June 20, 2017

[Succession DART and Supervisory DART presentation](#)

External link

King County Metro



Metro is in the process of growing its workforce development programs to create more on-the-job training opportunities, to reach more students and underrepresented communities, and to generate more energy around the agency's future.

Interviewee: Jana Demas, rail deputy director

Summer internship/mentorship program for disadvantaged youth

Metro participates in a King County program called [Lift Every Youth](#), which was piloted in 2017 but suspended in 2020 in light of the COVID-19 pandemic. The program is open to youth and young adults, 14 and older, who are experiencing ongoing barriers, including those who are low-income; charged with truancy, suspension or expulsion; detained and incarcerated; involved in the child welfare system; homeless; gang-involved; or experiencing exploitation or violence. These young people are identified through their involvement in community service programs run by the court system and the county attorney's office.

Lift Every Youth is a 10-week internship/mentorship in which students learn basic work-readiness skills. Demas said, "The program is designed around 'What does it mean to have to be at work at a certain time? What are basic skills that you need to be successful in an office environment? What is it like to have to show up to meetings and to come prepared?'"

The students learn technical and communication skills, perform work tasks as assigned, learn about the services offered by King County, get a valid ID, and participate in mediation and/or social justice training. They also complete a capstone project that they present at the end of the program.

The other aspect of the program provides each student with a mentor who provides an additional level of support, Demas said. "I think in order to be successful in a program like this you really have to design it well, or the kids are not going to succeed. They're dealing with a lot of other, different challenges. ... This is a way to give

King County Metro (cont.)

them a window into what the working world is like and hopefully excite them and interest them in some of the different possibilities out there.”

Interns at Metro work on the non-operations side of the agency for up to 29 hours per week and are paid \$16.96 to \$21.49 per hour.

Other internships

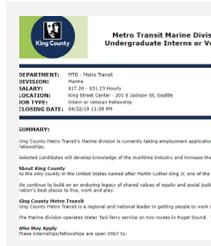
Metro has relationships with local colleges and universities to bring in 20 to 25 undergraduate and graduate students to work on the non-operations side of the business. These are one-year programs in areas such as planning, finance and HR. “Those partnerships are really well-established and very robust,” Demas said, and interns frequently come back to work at the agency.

Demas hopes to expand these programs to reach a more diverse workforce outside the Seattle metro area. Metro has already partnered with the [Conference of Minority Transportation Officials](#) to recruit interns and also hopes to partner with historically black colleges and universities.

The goal, Demas said, is “bringing in people who maybe have not had the same opportunities and may not have the same experiences. I think that’s a really smart way of doing things, really thinking about who you’re targeting and how you’re doing that so you’re being as inclusive as possible.”

Demas also wants to increase the number of job shadowing and on-the-job training opportunities at the agency.

▼ RELATED MATERIALS

 <p>Job bulletin: Interns or Veteran Fellows in Market & Business Development</p> <p>External link</p>	 <p>Job bulletin: Graduate Intern or Veteran in Service Planning</p> <p>External link</p>
 <p>Job bulletin: Undergraduate or Veteran Intern in Marine Division</p> <p>External link</p>	 <p>Job bulletin: Marketing and Promotions Graduate Intern or Veteran Fellow</p> <p>External link</p>
 <p>Job bulletin: Business Intelligence Undergraduate, Graduate Intern or Veteran Fellow</p> <p>External link</p>	 <p>Demas on the importance of nimbleness</p> <p>Part One</p>

King County Metro (cont.)

Tour program

Metro’s Vehicle Maintenance Division has a robust tour program aimed at exposing young people, especially those whose opportunities might be limited because of systemic inequities, to the jobs, facilities and employees who may provide them future opportunities.

“These tours are designed to give students a sense of what these jobs are and what’s even possible,” Demas said. The division partners with area high schools and community colleges to bring in tour groups. Although scheduling with high schools was difficult in 2020 because of the COVID crisis, the department did host students from both Green River Community College and Renton Technical College, both of which have mechanics programs.

Fellowship

Metro is among the agencies participating in a new fellowship program being offered to King County residents representing communities that have lacked equitable access to education, employment and professional development. The [Ruth Woo Emerging Leaders Fellowship](#) offers one-year, paid, full-time positions to up to three people, selected in part for their commitment to advocating for disadvantaged youth.

Fellows will work in various county agencies, including Metro, for three to four months at a time, learning new skills while working on the county’s efforts to improve equity and social justice.

Los Angeles County Metropolitan Transportation Authority



For the past several years, LA Metro has worked hard to implement a groundbreaking cradle-to-grave learning culture, starting by engaging with high school students under the umbrella of its E3 initiatives, which aim to expose, educate and employ the next generation of workers.

Interviewees: Joanne Peterson, former chief human capital and development officer, and Maria G. Meleandez, deputy executive officer, Next Generation Workforce Programs

SEED School of Los Angeles County

On a South Los Angeles property that has been vacant since the 1992 civil unrest, Los Angeles County and LA Metro are building a vision to protect and serve at-risk youth, revitalize the neighborhood, and empower the next generation of the transit workforce.

The SEED School of Los Angeles County, currently scheduled to open in fall of 2022, is envisioned as a free public boarding school that will give priority admission to students whose families are eligible for benefits, who are experiencing homelessness or housing insecurity, who have a family member who is incarcerated, or who have been involved with the child protection or juvenile justice systems. It will aim to prepare students for

Los Angeles County Metropolitan Transportation Authority (cont.)

college and careers with mentoring, internships, field trips and interdisciplinary courses in STEAM fields, with a focus on the transportation and infrastructure sectors.

The vision for the site also includes retail, a grocery store, affordable housing and a transit plaza. The school will be run by the [SEED Foundation](#), which specializes in such boarding schools and whose three existing campuses see a college enrollment rate of 94 percent.

This school addresses the need to create and prepare a national and global pipeline of qualified and skilled workers for the transportation infrastructure industry. It will positively change the lives of thousands of young people by providing training and skills that will allow them to live productive lives.

“With the beginning of construction on the SEED School of Los Angeles County slated for later this year, we are making great strides to prepare Metro’s future workforce in the transportation infrastructure industry,” Peterson said. “The school will be a bright light that will illuminate lucrative career paths for hundreds of youth in our county.”

▼ RELATED MATERIALS

 <p>Metro and L.A. County partner on Transportation School to create the next generation of workers</p>	<p>Press release from SEED School groundbreaking</p> <p>External link</p>	 <p>JUAN RODRIGUEZ CABRILLO PORT OF LONG BEACH</p> <p>The Port of Long Beach Academy Global Logistics at Cabrillo (AGL) AGL COURSE OF STUDY</p> <p>CABRILLO PORT OF LONG BEACH</p> <p>PATHWAY INFORMATION</p>	<p>“Planting a SEED in South LA” article by Mark Ridley-Thomas and Phillip Washington</p> <p>External link</p>
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Metro Youth Career Experience

When LA Metro staff members started to engage with the idea of building a transportation school, they quickly realized that when young people think of transportation careers, they mainly think of just two jobs: rail operator and bus operator. “What that told us,” Meleandez said, “is that young people didn’t realize the depth and diversity that our industry has, in terms of a career—and a meaningful career—specifically here at Metro. They didn’t know what they didn’t know.”

To respond to this need, in partnership with the Program Management Department, Meleandez’s staff began developing a program to expose high school students to the diversity of opportunities available in transit. The pilot consisted of five full-day learning modules, held once a month, for Compton High School students in 2019.

To recruit for the program, LA Metro staff met with ninth-grade teachers and school administrators to explain the project’s vision and goals. “Initially, the school wanted to send us their best and brightest,” Meleandez said, but the agency was targeting students with a GPA of around 2.5. “The idea is to target young people that didn’t have the best grades, didn’t have the worst grades. They just needed a little push, a little encouragement to get them over that threshold,” she said.

Los Angeles County Metropolitan Transportation Authority (cont.)



Students were identified and invited to attend; more chose to participate than expected, so the agency expanded its capacity from 25 to almost 40. The curriculum used the ongoing construction of the Blue Line, which passes through Compton, as a case study, showing them that it's more than just noise and inconvenience, but that such a project also represents opportunity for the community, including a wide variety of careers. Each month the students learned about a different element of the project, including station design, creative communications, and art and design. "The idea is to create these real-world scenarios that these young people can take part in, hands on, and have a better understanding of what exists in the world of transportation infrastructure—other than it's just noise or just a train," Meleandez said.

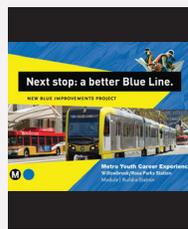
The curriculum for this program was shared with ninth-grade teachers throughout the country in the hopes that other students could be exposed. "What I am most proud of is allowing young people to dream a dream and be exposed to what exists outside of their community," Meleandez said. "I was that young person that didn't know any better. So as a professional, I am committed to creating opportunities for the next generation to stay curious and learn about how they can have a meaningful professional career in transportation infrastructure."

▼ RELATED MATERIALS



Metro Youth Career Experience:
New Blue Improvements Project
overview

➔ Part Three



Build-a-Station Module Facilitator
Guide

➔ Part Three



["LA Metro E3 Youth Initiative:
Metro's Youth Career Experience"
video](#)

➔ External link



[E3 Initiatives presentation](#)

➔ External link

Los Angeles County Metropolitan Transportation Authority (cont.)

High school summer internships

Now in its 23rd year, Metro’s high school summer internship, the [Transportation Career Academy Program](#), went virtual in 2020 in light of the COVID-19 pandemic. Senior director Marion Jane Colston worked diligently with external partners to ensure that LA Metro stayed connected to the community by evolving TCAP into a virtual offering for students. The agency used the challenge as an opportunity to “engage students in a way for them to gain experience with working remotely,” Meleandez said. “We started with identifying the skills, knowledge and abilities they will need to be successful in the workplace of tomorrow.”

The [Los Angeles Trade–Technical College](#) was a key partner in taking the program online, helping to facilitate the virtual platform and helping the agency engage with other private partners to provide new skill sets to be taught for the online program. The LATTC partners helped develop the curriculum for the internship, and students in the program also earn college credit.

TCAP is for rising juniors and seniors, who receive minimum wage and work 35 hours per week for seven weeks. The program’s goals include connecting high school coursework to real-world work experience and exploring careers in transportation. Students also benefit from a mentorship relationship with transit professionals. Targeted students are transit-dependent teens who live in close proximity of a Metro Rail station and whose schools are near Metro’s expansion efforts.

“It’s about exposure and passion. If that’s at Metro and within the industry, fantastic,” Meleandez said. “But if that’s not the case and their passion lies elsewhere, we want to help foster that growth as well.”

College internships

The [Metro Internship Program](#) for undergraduate and graduate college students features programs that last from six months to three years and pay from \$17 to \$19.50 per hour. Internship opportunities are made available in a wide variety of fields, including graphic design, accounting, civil engineering, community relations and urban planning, as just a few examples.

“This is meant for students that are in a college program and interested in exploring the professional, real-world workings of their major,” Meleandez said. “It gives them an opportunity to start engaging with professionals and doing some entry-level work that is in alignment with their degree program.”

Entry-level trainee program

The [Metro Entry Level Trainee Program](#) is designed to be a career bridge to help recent college graduates gain work experience and job skills needed prior to seeking a full-time position in transit. Students in this two-year program “get to touch and feel what that career would look like so they can determine if that’s something that they’d want to do for the long term,” Meleandez said. “It’s really creating those opportunities for exposure.”

Metro so far has converted about 38 percent of these trainees to full-time jobs, with more than half of those new employees being women.

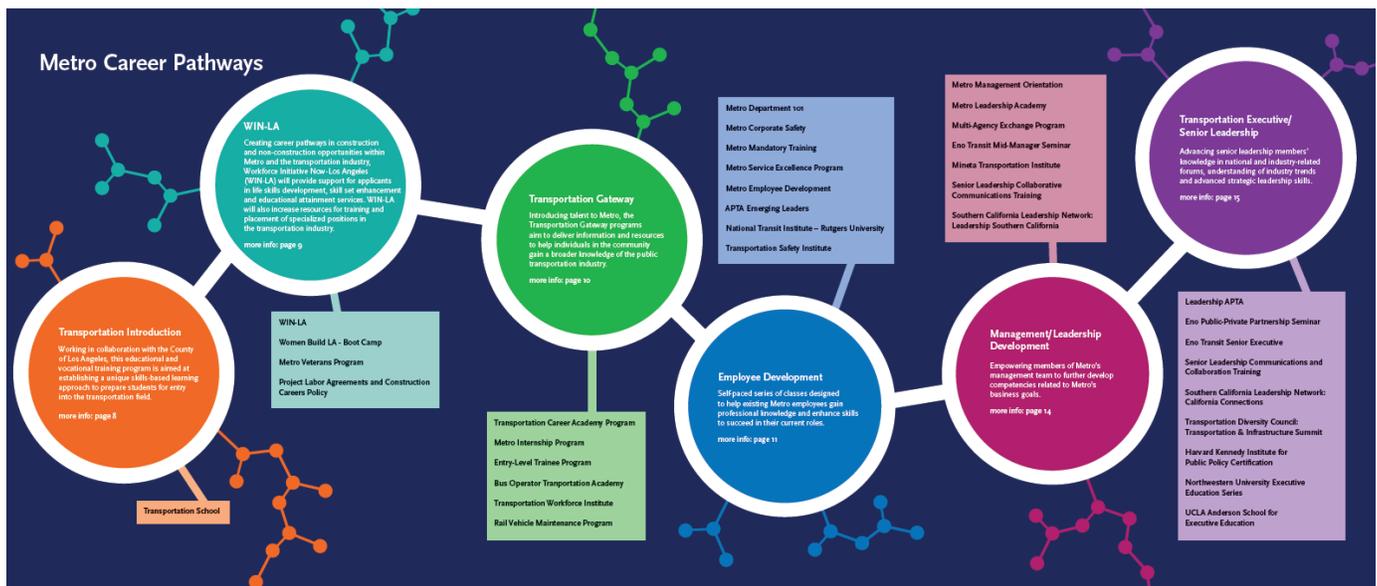
With all three internship programs—high school, college and entry-level—LA Metro partners with local community colleges, which provide professional and career days that introduce students to transit. “These

Los Angeles County Metropolitan Transportation Authority (cont.)

partnerships with the community colleges and community organizations really help bring more resources to the table for these young people so they can truly find alignment with what they're most passionate about," Meleandez said.

Career pathing and leadership development

As of 2020, 70 percent of LA Metro's approximately 10,000 employees are over the age of 40, and 28 percent are eligible to retire. And within the next five years—if trends hold in the years beyond the pandemic—that retirement eligibility is expected to be 50 percent. In response, and under the leadership of Peterson and Metro CEO Phil Washington, the agency has focused heavily on leadership development with LA Metro's Career Pathways Program, an innovative and progressive training model to prepare tomorrow's transportation infrastructure leaders. From transportation entry-level programs through employee development, middle management/leadership development, and transportation executive/senior leadership programs, the program is designed to develop and cultivate employees at every stage.



Within Metro's Career Pathway Program, an initiative called Workforce Initiative Now-Los Angeles (WIN-LA) was also developed to address the anticipated workforce challenges of the future. The effort is designed to create career pathways throughout Metro and within the transit industry as a whole.

WIN-LA also supports employees and would-be employees in connecting with training and education, enhancing their life skills, and helping them take ownership of their career trajectories. "We felt that was a first step, to start having people understand what career pathing was and for them to get a sense of the ownership they need to take with their career goals," Peterson said. "And so that started to open up the gates of people thinking about growing long-term careers, not just with LA Metro, but within the industry."

One strategy the agency uses to support this effort is "underfilling" each new job opening. When a high-level senior management position opens up, Metro makes every effort to promote from within and do the hiring at a much lower level. This not only creates opportunities for younger workers but also allows the agency to keep

Los Angeles County Metropolitan Transportation Authority (cont.)

workforce costs lower. “It’s one of those things where you’re making lemonade out of lemons,” Peterson said. “We have fiscal problems like everyone else right now, but we can use these kinds of programs to benefit the emerging workforce.”

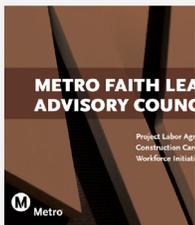
LA Metro’s workforce development programs have been implemented in collaboration with stakeholders throughout Los Angeles County, including unions, community colleges, community-based organizations, criminal justice offices, other employers and faith organizations. Various stakeholders meet once a quarter to share information and resources. “It’s about creating opportunities and advancing synergies with a cross-section of partners,” Meleandez said. “That’s important because many of the communities we impact are underserved.”

The agency has created detailed career pathing plans for 10 entry-level jobs: bus mechanic, bus operator, custodian, electronic communication technician, facilities system technician, rail electronic communication inspector, service attendant, stock clerk, systems electronic communication technician and transit security officer.

Each pathway details the development programs available to employees, including the agency’s own Leadership Academy, which allows employees to advance their personal leadership philosophy, develop a better understanding of public transportation, and learn what it takes to lead throughout the industry. Once employees have graduated from Leadership Academy, they are eligible to move on to further development programs offered through APTA and Eno.

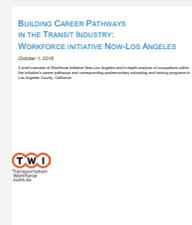
What Metro has succeeded in doing, Meleandez said, is creating an agency-wide learning culture, where all employees, from all backgrounds, are engaged in education and career advancement. “We’ve created the type of learning environment that is collaborative. If a director or manager has an emerging leader in their department, they know who to contact for additional support,” she said. “It’s an all hands-on deck effort to support our workforce. It’s not a formalized program, but more of a cultural shift that’s happened at Metro over the last six years.”

▼ RELATED MATERIALS



Faith Leaders Advisory Council presentation

➔ Part Three



[WIN-LA report](#)

➔ External link



[Career Pathways ebook](#)

➔ External link



[“How L.A. Metro is inspiring, training tomorrow’s transportation workforce” article](#)

➔ External link



In partnership with a local vocational high school, MBTA has developed a rich internship academy that gives students the opportunity to experience working in Boston’s dynamic transportation industry, learn how their skills can translate into a career and see firsthand what it takes to succeed.

Interviewee: Penny Nickle, Intern Transportation Institute project lead

High school summer internships

MBTA’s summer internship program works closely with vocational high schools to recruit students interested in the trades to participate in work and professional development opportunities at locations throughout the agency. Though it was put on hold in 2020 because of the pandemic, the Intern Transportation Institute has been so popular and successful since it launched in 2015 that it’s been extended to MassDOT Highway, where students work as auto technicians on the nonrevenue fleet.

Students participating in the seven-week ITI work 32 hours per week with a minimum wage of \$12.75. They are assigned skills-based projects at their job site Tuesday through Thursday, and they gather at MBTA headquarters on Mondays for professional development, tours and other wraparound training. This has included, over the years, a speed-dating-style icebreaker, team-building activities on Thompson Island, talks from leadership and union representatives, drug and alcohol education, presentations on new technologies being used in transit, PowerPoint and Excel training, lessons on financial management, and more. Students are recruited primarily from Madison Park Technical Vocational High School, Boston’s only vo-tech high school, and newer partnerships with five other area vocational schools have been added as well.

The program started as full-time, Nickle said, but was reduced to 32 hours a week both to save money and to provide more flexibility for the students. “We were finding out that some of our interns have two jobs,” she said. “This schedule allows them to work at their other jobs on the weekend but still have the MBTA experience.”

Students must meet a number of criteria to join the program, including having a minimum 2.0 GPA, an excellent attendance record and a letter of recommendation. “The first year we didn’t have prerequisites,” Nickle said. “But we found that the kids who were really serious about their grades and their attendance were much better candidates at the work site.” Additionally, those criteria are in alignment with the ones required for students to participate in other cooperative work experiences for credit and pay during their junior and senior years.



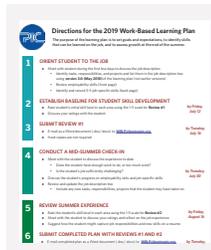
Massachusetts Bay Transportation Authority/Massachusetts DOT (cont.)

The ITI graduated 125 students from 2015 to 2019; in the most recent class there were eight interns working as auto technicians, three in electrical and radio communications, three on the Green Line, two in metal fabrication, two in IT and one in safety.

“Teenagers think the transportation industry is driving a bus or driving a train. They have no idea of the scope of all these different career opportunities,” Nickle said. She developed a list of every job in MassDOT to help drive this point home to students and parents considering the program. “People are always just shocked,” she said, “because even adults had no clue that our industry has all these opportunities.”

The ITI program has been transformational, Nickle said. “For students who came to us as a junior—and because of the training that we offered them on professional development and how important grades are and work ethic and their experiences with their supervisors—their senior year was totally different in terms of their attitude,” she said. “I think it really helps let them know that if this is something that they’re interested in, and they want to excel, that there’s really good-paying jobs available down the road.”

▼ RELATED MATERIALS

	<p>Instructions to departments for ITI work-based learning plan</p> <p>➔ Part Three</p>		<p>ITI work-based learning plan for students and supervisors</p> <p>➔ Part Three</p>
	<p>ITI brochure</p> <p>➔ Part Three</p>		<p>Sample ITI job description: automotive intern</p> <p>➔ Part Three</p>
	<p>ITI graduation invitation</p> <p>➔ Part Three</p>		<p>Nickle on partnering with vocational schools</p> <p>➔ Part One</p>

Entry-level work

MBTA has entry-level positions for people with four-year degrees, primarily in white-collar office jobs, such as those in the legal and accounting fields. But it’s harder for ITI graduates and other students with associate’s degrees to obtain union jobs in the trades.

Massachusetts Bay Transportation Authority/Massachusetts DOT (cont.)

“We finally have kids now that started on the program, and they’re getting their associate’s degrees in automotive or computer, and they’re returning to us, saying, ‘Where are the jobs?’ ” Nickle said. “This is something our industry definitely needs to take a look at. Here we already have an established relationship with this person, we know what their work ethic is, so how do we bring them back into the organization?”

One option for students interested in the trades is to take a job as a fueler at MBTA—fueling and cleaning buses and performing small repairs—to get the experience needed to start training as a level one mechanic. And MassDOT has a newly created highway maintenance position that is truly entry-level and could serve as another bridge to a transit career. Students also can go through union training, although each union has different rules and procedures, Nickle said. For example the electricians union every year awards two union slots to students at Madison Park, who can then start its training program.

“It’s really interesting to see the different tracks of how students would be eligible to come back into the organization,” she said. “Transit is like the doctor level of this industry. But I think it’s unfortunate, because if we’re going to have to replace 40 percent of our workforce, then that’s not going to work very well. We’re going to need everybody now.”

▼ RELATED MATERIALS



The image shows a screenshot of a document titled "List of all MassDOT occupations" from the Department of Transportation (MassDOT). The document is organized into columns with various job titles and descriptions. A navigation button labeled "Part Three" with a right-pointing arrow is visible on the right side of the document.

METRO Regional Transit Authority (Akron, Ohio)



With highly attractive transit wages and benefits, retention is not an issue for METRO. But around 40 percent of the operator workforce is over 60, so the agency has implemented several strategies to recruit and retain a younger, diverse and high-quality applicant pool.

Interviewees: Jay Hunter, director of employee engagement, and Lori Stokes, employee engagement manager

In-house training

A CDL is not a prerequisite for operator positions at METRO because the agency handles its own training in-house, which both reduces barriers to entry and provides an attractive benefit. “We don’t even advertise for CDL drivers,” Hunter said. “I’m sure in applicants’ minds, they’re thinking, ‘If it doesn’t work for me, at least I come out of there with a free CDL. I can make good money somewhere else.’ ”

METRO Regional Transit Authority (Akron, Ohio) (cont.)

The bus operator training begins with paratransit vans. When there's an opening in the line services, paratransit drivers are pulled off the road and given several weeks of training on the longer buses and must pass their CDL test to continue their employment.

Operators are also sometimes given opportunities to “moonlight” as supervisors/road dispatchers, so they can move more seamlessly into those positions if there is an opening.

In-house training is also provided for customer service and entry-level office positions, which are positions students can apply for right out of high school.

▼ RELATED MATERIALS



Metro's CDL study guide



➔ Part Three

Apprentice mechanic program

In addition to on-the-job training for operators, METRO periodically offers an [apprentice mechanic program](#) aimed at students. The two-year program pays a working wage and requires a high school diploma or GED and two years' experience in vehicle repair. These opportunities are shared with high school guidance counselors, who will refer students to the program. After two years, apprentice mechanics will have attained several certifications and a pipeline into a good-paying job at METRO. These jobs require a CDL, so new mechanic hires must be 21.

High school students are drawn to these opportunities both because of the potential for a full-time job and because of the opportunity to work on a variety of different types of vehicles. When talking to students, METRO emphasizes the diversity in its fleet, including diesel-electric hybrid, natural gas and low-sulfur diesel buses.

▼ RELATED MATERIALS



Apprenticeship program description

➔ Part Three



Job description: Apprentice mechanic

➔ Part Three

METRO Regional Transit Authority (Akron, Ohio) (cont.)

Summer civil engineering internships

METRO periodically offers internships in its Planning Department to high school graduates interested in civil engineering. These are offered on a project basis. “When the need arises, we reach out to multiple high schools, STEM schools especially,” Hunter said, to share the job descriptions.

Internships consist of 12 weeks of full-time work at \$13 an hour and are designed for students pursuing degrees in planning, engineering or public administration.

▼ RELATED MATERIALS



Job description: Planning Department intern

→ Part Three

Recruiting and retention

When METRO staff advertise and participate in job fairs, they focus recruitment efforts on soft skills such as customer service as a strategy to find higher-quality candidates.

“We’re trying to change their focus to say it’s customer service. We can teach you how to drive,” Stokes said. “But you have to come in the door with a certain skill set. ... That’s been a thing that’s worked in our favor, because we’re getting them to think early on that the customer service piece is very, very important.”

When the agency has attended high school job fairs, Stokes said, the focus is on exposing students to the future opportunities at METRO, since most jobs do require applicants to be 21. “What we would do is inform them, ‘Hey, here’s an opportunity that you could have when you’re 21. Keep your nose clean until then.’ ” The take-home job cards handed out at these events emphasize soft skills as well.

METRO’s social media accounts are another effective marketing tool. They are largely employee-focused, showcasing the diversity of people who work for the agency, as well as the diversity of work environments. And there’s a fun, youth-friendly bent, including pictures tagged [#YodaOnlyBusForMe](#) featuring a Baby Yoda character in different parts of the agency.

METRO Regional Transit Authority (Akron, Ohio) (cont.)



Akron METRO Regional Transit Authority

August 5 · 🌐



Baby Yoda's hard work in the bus garages has paid off! Our Maintenance crew made him an honorary member of the team today. Check out that uni!

#YodaOnlyBusForMe #RideMETROYouShould #RideBusYouMust #METROMovesYou
#METROMovesYoda #BabyYoda #TheMandalorian #StarWars #METRO Proud



Finally, METRO's employee engagement staff has been bringing ideas to senior leadership for new benefits, including flexible start times, on-the-clock volunteering, paid time off rather than traditional vacation hours, college debt repayment, and work-from-home options. Younger workers are arriving with an expectation of more flexibility in their work life than older generations, Hunter said, and it's hoped that such new benefits, if approved, will aid in retention in the years to come.

▼ RELATED MATERIALS



**RULE
THE
ROAD**

Job cards for recruitment:
customer service, operators and
mechanics

➔ Part Three



MST’s workforce development is focused on making young students aware of the many opportunities in the transit industry and providing ample growth opportunities to existing employees—even if that means they advance their careers at another agency.

Interviewee: Kelly Halcon, director of human resources/risk management

Transit awareness and recruiting

MST sees its service provision, especially to students and rural and underserved communities, as part of its workforce outreach. It has a [Mobility Services Center](#) dedicated to providing mobility training to the disabled community, veterans, senior citizens and young students, many of whom are first-generation-American children of agricultural workers.

“We try to open young kids’ eyes to come in and learn about transit and not be afraid of using transit,” Halcon said. “And as you talk to these children about the use of transit, you also start talking to them about your job. I tell kids that I remember being 6 and playing trains with my dad, and now I get to deal with the real machines. I get to try out new technologies and play with them, and I think that’s a really cool job.”

The agency also does community events and speaking engagements in high schools to help students understand transit services, and it has partnerships with local educational institutions to provide transit passes to students. In these partnerships, MST provides free unlimited service, which the institutions pay for with an increase in student fees. “We’ve had people come in to interview, and they say, ‘I remember riding MST as a kid. It was something that helped me to get a better education, and I want to be part of that service to my community for future generations,’” Halcon said.

To reinforce these kinds of connections, MST advertises its employment opportunities on the sides of its buses, prominently featuring women and minorities. “Transportation is an opportunity for people when they think other doors are closed,” Halcon said. “This is a great industry. Where else are you going to get a defined pension plan and have health and dental and vision and life insurance and supplemental insurance? You’re not going to find all that in the private sector for sure.”



Monterey-Salinas Transit (cont.)

Career development

When MST identified a wave of upcoming retirements, particularly in its management, it started a succession planning process that benefits employees at all levels. The agency revamped its performance evaluations to focus not just on rating individual aspects of performance, but also to encourage open dialogue about what the employees' future interests were, and where they saw their careers going. "We started talking with each individual about their strengths and their goals," Halcon said, "because in order to get people to where they want to go, you also have to look at where the skill and knowledge and abilities gaps are to get people there."

MST started developing training opportunities to align with its employees' personal goals, and it increased its budget to allow more employees to have networking and training opportunities at conferences. Additionally, the agency has a tuition reimbursement program of \$1,500 per semester so employees can earn certifications and degrees to help them advance their careers.

As a small-to-medium transit agency, Halcon said, MST is not always able to move the employee into the position they are hoping to achieve. "The way we look at it is, even if we don't have a position for you today, some other transit agency might," she said. "We don't begrudge somebody moving on in their career to advance themselves, and we can always try to steal them back at some point."

Another part of the workforce development effort was updating job descriptions to better align them with career mobility, as well as creating formal career ladders. "We just want to foster that communication between employees and their supervisors so everybody's understanding where they are today and where they can go in the future," Halcon said.

▼ RELATED MATERIALS



Goals and expectations employee assessment form

➔ Part Three

College internships

MST has pursued internship programs with local community colleges and California State University, Monterey Bay, but has found that it's difficult to convert these students into full-time employees. Recent college graduates typically can't afford to live in the community, Halcon said.

The agency is in the final stages of developing a new partnership with Hartnell College, with which it has a long-standing relationship, for a semester-long internship opportunity for diesel mechanics students. That program is currently on hold due to the COVID pandemic.

Monterey-Salinas Transit (cont.)

On-the-job training

MST has faced some pushback from unions about bringing in college interns and having employees help to train them, Halcon said. “ATU has argued that it’s working out of class for an individual who doesn’t work for MST to be turning a wrench,” she said. “They see it as taking job duties from another individual.”

One way the agency has secured union buy-in with both its internship program and other on-the-job training responsibilities is to offer a \$3-per-hour bump in pay for employees taking on training duties. This training rate applies to bus operators and has been negotiated for mechanics in the Maintenance Department as well.

It’s important for training to be a positive experience for both trainer and trainee, Halcon said. “It’s such an important development process within any organization, and you want it to basically develop like a comradery,” she said. “There’s a bond that forms when you’re learning together. ... We want our mechanics to work as a team in a positive way so we can be safer in the shop and safer for the public that we’re providing service to.”

Referral and retention programs

One recruitment strategy that has been successful at MST is a referral program. Any employee listed as a referral receives a \$400 bonus after the new employee he or she referred makes it through the probationary period.

The agency also has a “signing bonus” program that has been successful so far at retaining new bus operators. Many of these employees tend to leave in the first year, Halcon said. “While being a driver comes with a lot of benefits, the hours can be difficult at first,” she said. “You’re low on seniority, you have to work holidays, and that can be really rough.”

To get employees through the critical first two years, the agency offers a \$500 bonus for completing training, a \$1,000 bonus for completing the first 1,000 hours of work, and a \$2,000 bonus for completing the first 2,000 hours of work.

MTA New York City Transit



By leveraging its powerful programs and uniquely strong relationships with public CTE high schools in New York City, MTA New York City Transit has successfully built a pipeline from high school directly into the transit workforce.

Interviewee: Antonia Brown, director of recruitment and internships at NYCT

Public high school outreach

As of 2018, [124 of New York City’s 432 public high schools](#) had at least one CTE program. These include several programs relevant to transit—for example, automotive, construction and electrical—as well as a high school wholly dedicated to transit career training, called [Transit Tech Career and Technical Education High School](#).

MTA New York City Transit (cont.)

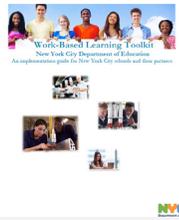
Transit Tech has a state-approved transit electrical program, and students enrolled there receive hands-on training using decommissioned NYTC subway cars and one recently donated bus.

“We have a real close connection with Transit Tech,” Brown said. “Our Operations Training Department makes sure they have the most recent and up-to-date equipment, and the students use the same tools we’re using in our own operations.”

Brown’s office works with officials at the CTE schools called work-based learning coordinators to get the word out about transit careers, get speakers into the schools, organize participation at job fairs and promote relevant exams.

NYCT also offers tours of various aspects of transit to schools when asked. “Sometimes they want to see our bus command center or rail control center. Oftentimes we invite them to our signal school to see how we train signal operators,” Brown said. “We also take high school and middle school students through the [transit museum](#).”

▼ RELATED MATERIALS



[Work-Based Learning Toolkit](#)
External link

Apprenticeship program

NYCT’s paid apprenticeship programs have existed on and off for more than two decades but were relaunched in 2016—and then suspended for 2020 in light of the COVID-19 pandemic.

In the most recent class, about 50 students were accepted into one of the two programs offered:

- **Transit electrical apprentice:** This is a 36-month program in the Department of Subways covering signals, elevators and escalators, car equipment, hydraulics, HVAC and bus facility maintenance.
- **Transit mechanical apprentice:** This is an 18-month program in the Department of Buses covering bus mechanical maintenance.

NYCT received more than 100 applications in 2019 for the 50 slots. Students are required to have a 75 percent average in school, a recommendation from a teacher or principal, and fewer than five unexcused absences. They go through the same operations training as new hires would, in addition to classroom study. Students can choose areas of specialty, and they shadow and learn from employees in that field.

“Every couple of months, they pull them out of the field and see where they’re at and also make sure they’re competent enough to pass the civil service exam,” Brown said, adding that every student in the first electrical apprentice graduating class passed the Department of Subways maintainer exam.

MTA New York City Transit (cont.)

Students are paid over \$22 an hour as apprentices. After completing their rotations, and passing a civil service examination, they can transition to a full-time, permanent civil service title of maintainer or maintainer B.

Students enjoy the apprenticeship, Brown said, and in the three years since the relaunch, only a couple of students have dropped out. Many of the program's graduates transition smoothly into jobs at NYCT, either immediately or after pursuing other opportunities.

“Since the word is starting to get out, matriculation at Transit Tech has gone up a lot,” Brown said. “And not everybody comes immediately into transit. They may come later on in their career. Some may come after they graduate from college.”

▼ RELATED MATERIALS



Apprenticeship presentation

➔ Part Three



Apprenticeship flyer

➔ Part Three



Transit electrical apprentice requirements

➔ Part Three

College internship program

The skilled trade area suffers as more students are pushed toward college, Brown said, but NYCT also has developed a workforce pipeline through its [college internship program](#), which has existed for almost 40 years.

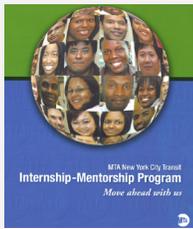
Most internship assignments last two years, as students become eligible in their junior year or after they have earned at least 60 credits. The agency offers both paid and unpaid internships. Paid college aides start at \$15 per hour undergraduate and \$20 per hour as graduate students. Both paid and unpaid program participants are given free use of the transit system. Students may intern for credit if they're enrolled into an internship class at their school.

Internships provide work experiences tailored to the students' degree discipline, including in areas such as accounting, capital engineering, human resources, information technology, marketing, operations and planning.

“It's been a great pipeline for full-time employment,” Brown said. “We have a very good track record at hiring people from the internship program, because it's such a great opportunity for people to learn and to test out the environment.”

MTA New York City Transit (cont.)

▼ RELATED MATERIALS



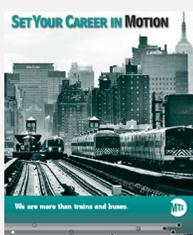
Internship-Mentorship Program Guide

→ Part Three



Bus operator flyer

→ Part Three



[“Set Your Career in Motion” brochure](#)

↗ External link

Summer training

NYCT is the site of a number of summer placement programs, offered through organizations including the Women’s Transportation Seminar, George Westinghouse Career and Technical Education High School, the Department of Education and [The Summit School](#).

Over the years the agency has been a strong supporter of the Department of Youth & Community Development’s Summer Youth Employment Program. NYCT typically participates in the summer program as a host site and in 2020 served as a webinar host for the virtual program.

The Summer Youth Employment Program is a six-week summer program for New York City youth ages 14 to 24. Brown said the NYCT usually places 100 to 200 of its older youth participants in various departments agency-wide to get work-based learning experience.

“We have them placed all throughout transit,” Brown said. “They could be in the law department, operations planning, they could be in HR, or in occupational health services.”

Mentoring

When students are placed as interns through the college program, supervisors are asked not just to assign work-based learning tasks but also to act as mentors. Additionally, NYCT employees have volunteered to participate in various mentoring programs like the Global Kids program in association with Transit Tech High School or the [Matilda Cuomo NYS Mentoring Program](#).

MTA New York City Transit (cont.)

▼ RELATED MATERIALS



Transportation career mentoring flyer

→ Part Three

New Jersey Transit



New Jersey Transit leaves no stone unturned when recruiting for its team of nearly 11,500 employees—and the agency supplements those efforts with an approach to retention that emphasizes training, growth and mobility within the agency.

Interviewees: Christina Murphy, Ph.D., deputy chief, Human Resources, and Margaret Carey, manager, Employee Development & Training

Operator hiring initiative

In 2018, New Jersey Transit decided that in order to better retain bus drivers, it needed to convert its part-time workforce to full-time. It faced record-low unemployment in New Jersey, a high retirement rate for drivers, comparatively low driver pay, and stiff competition for CDL holders from other carriers and the trucking industry. Additionally, provisional bus operators were the only full-time employees within any business line who were hired without medical benefits. New bus operators began as full-time provisional operators and began receiving benefits only when they reached regular full-time operator status.

The agency developed a multipronged initiative to tackle these challenges:

- It increased the hourly wage to be more in line with the regional transit industry and created a generous bonus program for bus drivers to be awarded upon their six-month and 12-month anniversaries. “We were in a quandary, because the starting pay rates at the time for the greater New York City area were higher than what we were paying,” Murphy said. “We decided first and foremost: ‘Let’s not have people question what the pay is.’ We want to make sure we’re not only competitive but have a competitive edge.”
- It identified its top-performing drivers and created video vignettes highlighting their career stories and the lifestyle of being a bus operator. The videos were featured on the agency’s website, along with information about working at New Jersey Transit.
- The agency sent a postcard to every licensed CDL holder in the state, advertising its bonus, increased pay and benefits. “Attracting new CDL drivers was a great strategy for us,” Murphy said, “since we train employees how to attain their CDL, that let us focus their training time and convert these drivers to the garages sooner.”

New Jersey Transit (cont.)

companies that are struggling a great deal right now,” Murphy said. “We have reached out to owners or heads of human resources to say, ‘We know you’re in a tough spot right now and you’re probably wondering what will happen with your staff. Just know that we are hiring and would welcome having them apply and talk to us.’ We are always looking to find those pockets of talent that we can tap into; we’re not waiting for them to come to us.” New Jersey Transit also uses its existing employees to find new workers with an employee referral program.

- The agency regularly reaches out to young workers, or those looking for a career change, by participating in college and community career fairs. “We’ve found that going out into the community face-to-face gave us an opportunity to really talk about *why* New Jersey Transit,” Murphy said. The agency also engages with students through college and university placement offices, including Rutgers University and New Jersey Institute of Technology.
- Finally, the agency has found success reaching out to military personnel at events at Fort Dix. “The type of talent we’re looking for, with experience in diesel technology, is very hard to come by,” Murphy said. “And one of the places that people don’t think of is the military. A lot of these folks are working on large crafts, large vehicles—the vehicles may be different, but diesel is diesel.”

Internships, entry-level positions and career ladders

New Jersey Transit offers a rich summer internship program for college students, and in the summer of 2020 moved it virtual because of the COVID-19 pandemic. “We’re all learning to acclimate to this new work-from-home, virtual landscape,” Murphy said. “So we did the same with our interns.” Because the agency has a culture of promoting from within, one track into operations and mechanics positions is to start as a bus cleaner or servicer. Once these employees reach the age of 21 and have three years of provisional driving experience behind them, they are eligible to train for their CDL and move into roles as mechanics or drivers. Other roles a student could move into right out of high school include administrative assistant positions and some introductory jobs on the rail side.

The agency also has developed formal career ladders, particularly in its agreement (union) jobs. Most of these jobs have a clear ladder that would show them how they can progress, and how quickly, through the different jobs. In the non-agreement worker population, Murphy said, there’s more movement between different disciplines, and employees are allowed to take short-term assignments in other career areas within the agency to learn about them. “For instance it is not uncommon for someone to be in a management position within bus and then maybe go into learning, finance, human resources or IT,” she said. “It’s actually quite common at New Jersey Transit, and the reason folks do this is they want to learn and acquire new skills; they have a vision for their career. This gets them introduced to other business lines that they have not had exposure to.”

Another crucial aspect of a culture that allows employees to advance within the agency is professional development training, such as assistance with resumes and interviewing. This training is paid for non-agreement employees but is also available for union employees if they do it on their own time. New Jersey Transit promotes these opportunities internally, but also regularly offers such training to employees who have already been through an internal hiring process. “What you find is oftentimes people might have the experience that they haven’t articulated effectively vis-à-vis the resume or in a panel interview,” Carey said. “If people have an experience of going through an interview in real life and think perhaps they could have done better, they reach out for feedback, and the feedback loop is closed when the talent acquisition group reaches out to my group.”

New Jersey Transit (cont.)

The agency is working to formalize career ladders for its non-union positions in support of the agency’s 2030 vision of developing employees from hiring to retirement. It is also reviewing its tuition assistance, external training, rotational assignments and other related programs as part of the holistic approach to career development at the non-agreement ranks.

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New Jersey Transit on its culture of promoting from within

← Part One

Current NJT Employees

Orange County Transportation Authority



OCTA has a strong focus on succession planning, performing regular assessments, mentoring and training so it can hire primarily at the entry level and then enable talented employees to move up the ladder internally.

Interviewees: Julie Espy, manager, Learning & Development, and Camille Pedroza, employee programs specialist

Career event

OCTA hosts an annual Career Expo featuring booths and information sessions related to careers in transportation, along with professional development opportunities including resume writing and mock interviews. Since OCTA has such a variety of entry-level positions, almost every agency department attends, Pedroza said, and the agency also invites other regional transportation agencies, including [LA Metro](#), Caltrans and Metrolink to participate. The event draws a few hundred students each year from schools all over the county and is capped at 20 students per school for space reasons.

The mock interviews are one of the most popular parts of the day, Pedroza said. After some trial and error, the agency settled on offering a “speed–mock interview” session, where a group of students sit with a group of transit employees, answer one question, and then rotate to the next employee. “In between that, the employee’s giving them feedback about how they’re sitting, what they’re doing with their hands, their appearance, things like that,” she said. “This style seems to work out the best, because it just keeps going and we can rotate quickly through groups of students so they aren’t standing in a long line.”

To attract schools to participate in the event, Pedroza said the key is to communicate with them early and often. Although the event is held in March, she first reaches out to school administrators the previous August. “I send out a ‘save the date’ email right away so that the schools can put it on the calendar and into their budgets,” she said, which is important because the schools are responsible for transporting students to the event. “And then

Orange County Transportation Authority (cont.)

I just keep communicating, because they tend to put it on the back burner, and we need them to get in their RSVPs.”

▼ RELATED MATERIALS

	<p>Careers in Transportation Expo flyer</p> <p>➔ Part Three</p>		<p>Careers in Transportation Expo program</p> <p>➔ Part Three</p>
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High school internships

OCTA hosts interns in partnership with an Orange County United Way program called [Anaheim's Innovative Mentoring Experience](#), which draws students from Anaheim Union High School District. It's a six-week summer program where students work 15 to 20 hours per week and receive a \$600 stipend. Students also receive mentoring and career coaching.

▼ RELATED MATERIALS

	<p>Internship flyer</p> <p>➔ Part Three</p>
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College internships

OCTA hosts several dozen year-round college interns in a program designed to develop workplace readiness skills and gain exposure to the transit industry. Students are placed in a variety of departments, including Finance and Accounting, Human Resources, Information Technology, Marketing, Strategic Planning, and Transit and Project Management. These interns work no more than 28 hours per week during the school year, or 40 hours per week during the summer program.

The agency also runs a short professional development module for interns called Intern Development Academy. “They learn about resume writing, interviewing skills, office etiquette, networking within the organization, building their online profile like within LinkedIn,” Espy said. “We have panels of folks come in and talk to them about entry-level positions, what to look for, all of that.”

The agency also is a host site for interns from the Transportation Academy, sponsored by The Women's Transportation Seminar of Orange County, and for interns from COMTO's Careers in Transportation for Youth summer program.

Orange County Transportation Authority (cont.)

▼ RELATED MATERIALS



COMTO CITY Internship flyer

→ Part Three

The flyer features the COMTO logo and a group photo of interns. Text on the flyer includes 'COMTO CITY Internship', 'EXPLORE CAREERS IN TRANSPORTATION THIS SUMMER!', and 'Internship Details'.

Entry-level jobs and retention

Nearly every department at OCTA has a few associate-level positions suitable for people just entering the workforce, Espy said. And the agency has defined what it calls “job families” to designate a typical progression through the ranks—from associate through administrator, senior administrator and then principal, for example.

“Ideally what happens is that you have like what my old boss used to call ‘monkey move-up,’ ” Espy said. “So if a senior person leaves or retires, then hopefully I would have someone internally who would want that position, and there would be a stepping-stone pattern that would happen, and the position that would be vacant would end up being my associate level.”

The agency offers its young employees a professional development program called Early Career Academy, which meets three hours per month for eight months and teaches career readiness to help employees move up through these ranks. For young managers, there is a similar Management Development Academy. The agency also offers tuition reimbursement, job shadowing and mentoring opportunities at any level to help employees continue to develop, all of which is aggressively promoted internally.

Pierce Transit



Pierce Transit has identified students as an untapped market for its future labor pool. It uses its existing educational relationships to make students aware of the variety of entry-level jobs available in transit, emphasizing the agency’s culture of promoting from within.

Interviewee: Ryan Wheaton, executive director of Planning and Community Development

Ridership and awareness programs

Pierce Transit reaches out to students from middle school through college on two fronts: to make them aware of the benefits of transit and how to ride it, and to help them understand the broad range of careers available in the industry. The agency has partnerships with [high schools](#) and [colleges](#) to put bus passes in the hands of every student, for which the schools pay a flat annual fee. “We’ve been pretty aggressive with our pricing for student bus passes,” Wheaton said, “which makes it easier than it has been in the past to get in and talk to students, because we already have that relationship built in.”

Pierce Transit (cont.)

The agency has a staff person responsible for working with students and community groups on transit awareness; the educational component includes anything the schools are interested in, Wheaton said, whether it be participating in career events, providing information to counselors, making presentations to staff members or talking to groups of students. With local schools operating virtually in 2020, the agency has shifted these promotional messages online, introducing a Virtual Transit Education program to help students understand everything from local trip planning to the purpose of public transit.

“It starts with how do you ride a bus, why do you ride a bus,” Wheaton said. “But we also talk about the amount of self-sufficiency that goes into an agency like this. We have positions you wouldn’t expect—in risk, government relations, mechanical, marketing, public safety—so that people understand that an agency like this is a place where you can really have just about any career and find a home.”

Pierce Transit uses NEOGOV to post its job openings, which broadens its candidate pool and also reduces some of the overhead work for staff members, Wheaton said, giving them more time to focus on reaching new audiences, including students.

“We should always think about students, because they are a large group of people to get your word out to, and the cost to do so is usually not very expensive,” Wheaton said. “Whether that’s marketing ridership opportunities or marketing jobs and employment opportunities, it’s usually a pretty good bang for your buck.”

▼ RELATED MATERIALS



The screenshot shows a webpage with a header image of a bus stop. Below the image is a section titled "COMMUNITY INVOLVEMENT" with sub-sections for "Virtual Transit Education offerings" and "External link". The text under "Virtual Transit Education offerings" includes bullet points about community involvement and a link to "External link".

Career fairs

The agency’s message to students when attending career fairs is that there are many places where they can start in an entry-level job and then build their entire career at the agency. Students are especially interested in hearing the [story of Pierce Transit’s CEO](#), Sue Dreier, who started her career as a bus driver. “We’re proud of the fact that not only can you work your way up, but you’re not stuck in your one department,” Wheaton said. “It is not uncommon for people to both work up the org chart and make lateral moves between departments. That’s not frowned upon here.”

Wheaton said the agency often brings a variety of job descriptions to talk about at these events, emphasizing the diversity of careers available. Interested people are also given information about how to apply, and the job readiness required. “You can go online and find a job description for every job at Pierce Transit, including the CEO job,” Wheaton said.

San Francisco Bay Area Rapid Transit District



BART partners with local government agencies and nonprofits to tap into young adult and student populations to help them gain work experience, introduce them to transit careers, and promote their continued training and education.

Interviewees: Ronnie Rhoe, manager of workforce development, and Prem Bajaj, supervisor of workforce development

Workforce development

In 2015, BART was awarded an FTA grant to participate in a program called [Transit Career Ladders Training](#), which ran for 23 months. It incorporated a regional partnership of workforce development boards and community colleges spanning nine Bay Area counties and focused broadly on electronic and electrical entry-level and journey-level classifications. The curriculum was based on existing college courses with feedback from BART managers and targeted recruitment efforts. The program drew interest from more than 1,600 applicants, of which 114 enrolled in the program and 73 achieved an electrical and electronic certificate of completion. This resulted in more than 40 hires—25 percent of those women.

After TCLT concluded, BART launched its own workforce development program called the Transit Pathways Program, which leverages a pre-apprenticeship program run by Oakland-based training nonprofit [Cypress Mandela Training Center](#). Cypress Mandela trainees go through a free 16-week small-group training program in various skilled trades career disciplines and also learn professional development skills. BART was able to leverage that model to create two modules, one for track workers and one for structures workers, by adding a week of BART-specific training to the program.

“We’ve had challenges with recruiting into our skilled trades positions,” Rhoe said. “Being in the Bay Area, an area with a high cost of living, and an area where skilled trades are deemphasized at the high school level, we’ve had trouble recruiting and retaining employees into those positions. And then prior to COVID, construction was booming, and there were a lot of employers competing with us. So what we did was looked and sought partnerships with existing programs in our service area that were long-standing, had credibility and had placement results.”

The BART team brings in its own curriculum and provides both classroom and hands-on training. For the track worker program, for example, the department manager brought materials to the Cypress Mandela parking lot and had participants learn how to put down and tie rail. “It’s quite a bit of hands-on knowledge and experience, as well as learning what it’s like to be on the job doing the work,” Bajaj said. “So their comfort level when they go in for the selection process is not as scary. And they start to think it’s something that’s a possibility.”

Another key to the success of the program is that BART brings in recruiters to teach the participants about the agency’s online application process and to explain how the pre-apprenticeships can be added to their resumes. The recruiters come back again at the end of the program to help walk participants through the application process itself and answer questions about it.

San Francisco Bay Area Rapid Transit (cont.)

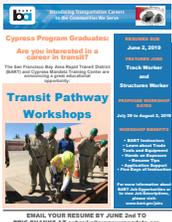
“Public agency job applications are just complicated in general,” Rhoe said. “That’s kind of an obstacle for any external job seeker, navigating what can be a very tough job application process. We give these students a leg up in that they basically already understand how to apply.”

Since 2018, BART has hired 13 people through this program, two of them women. Cypress Mandela keeps close tabs on those hires, checking in with them and their hiring managers every few weeks or months to make sure that they’re transitioning well and that their needs are being met. “That was a huge benefit of partnering with a community-based organization,” Rhoe said. “They can do the wraparound services, the retention, check in on housing, transportation, any other challenges that the employee may be facing. They provide the support we can’t always necessarily do as an employer to enable them to become a successful employee.”

Before the pandemic, the intention was to take this model and expand it to many new hiring classifications, including community services officers and janitorial positions. BART had sent out a request for quotation to several dozen organizations in its five service area counties with the hope of being able to add mini-training modules to more existing programs. In the spring of 2020, the agency was in the early stages of a partnership with Oakland-based Rising Sun Center for Opportunity and its Women Building the Bay program.

“Those few examples were the start of what we hoped would be something much larger,” Rhoe said. “We were in the middle of the training when COVID hit, and we had to put the training on pause. With the subsequent hiring freeze at BART, we just didn’t have the capacity to bring on their trainees. It was unfortunate, but we hope to resume this and other partnerships as we begin to rebound.”

▼ RELATED MATERIALS

	<p>Flyer for Cypress Mandela program graduates</p> <p>➔ Part Three</p>		<p>Cypress Mandela consulting agreement</p> <p>➔ Part Three</p>
	<p>RFQ for training and supportive services</p> <p>➔ Part Three</p>		<p>“BART partners with Cypress Mandela” article</p> <p>➔ External link</p>
	<p>Cypress Mandela program timeline</p> <p>➔ Part Three</p>		<p>BART career ladders brochure</p> <p>➔ Part Three</p>

San Francisco Bay Area Rapid Transit (cont.)

High school summer internships

BART hosts several dozen interns every summer, with many of the programs being run by specific departments, including Engineering, Planning and Development, and Rolling Stock and Shops. For its six-week district-wide internship program run by the Workforce Development Department, BART conducts outreach with a handful of community-based organization serving youth such as [Lao Family Community Development](#) in Oakland, California.

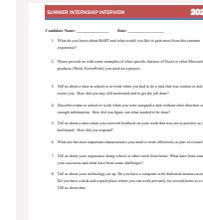
These CBOs refer intern candidates to BART, serve as the employer of record, provide pre-screening, pay the interns' stipend, and provide wraparound services. BART conducts interviews to understand the interns' career interests and matches them to a work area within the agency. "They get a real-world interview experience; they get badges and fingerprints," Bajaj said. "And they have wonderful things to put on their resume now."

The 2020 intern program was conducted almost entirely virtually because of the pandemic but included many of the same elements, including professional development classes and a final presentation designed to highlight the students' new skills. It also included access to 60 new on-demand online courses that interns could select from.

BART makes a point of keeping up with interns and has set up a LinkedIn group for intern "alumni" to share their experiences. "One of the things that we ingrain in the interns' heads is to make contacts when you're participating in the internship programs, and to stay in touch with your managers," Bajaj said. "And a lot of them have stayed in touch with us, so we kind of get to see where they end up going."

The agency is also making an effort to formally track where its interns land, Rhoe said, and some of the engineering internships provide enough work experience that students are qualified for junior roles right out of college—with 13 former interns having been hired in that department since 2018.

▼ RELATED MATERIALS

 <p>What is BART's Internship Program? BART's Internship Program is a six-week, district-wide program that provides high school and college students with hands-on experience in the transit industry. The program is designed to provide students with a real-world experience in the transit industry and to help them develop the skills and knowledge needed to succeed in the industry.</p> <p>What is a Virtual Internship? A virtual internship is a six-week, district-wide program that provides high school and college students with hands-on experience in the transit industry. The program is designed to provide students with a real-world experience in the transit industry and to help them develop the skills and knowledge needed to succeed in the industry.</p> <p>Supervisor's Guide to Managing a Virtual Intern This guide provides supervisors with the information they need to manage a virtual intern effectively. It covers topics such as setting expectations, providing feedback, and supporting the intern's learning experience.</p>	<h3>Internship program overview for supervisors</h3> <p>➔ Part Three</p>	 <p>BART Summer Internship Programs</p> <ul style="list-style-type: none">1. Supervisor's Guide2. Internship Program Overview3. Internship Program Overview - Part Two4. Internship Program Overview - Part Three5. Internship Program Overview - Part Four6. Internship Program Overview - Part Five7. Internship Program Overview - Part Six8. Internship Program Overview - Part Seven9. Internship Program Overview - Part Eight10. Internship Program Overview - Part Nine11. Internship Program Overview - Part Ten12. Internship Program Overview - Part Eleven13. Internship Program Overview - Part Twelve14. Internship Program Overview - Part Thirteen15. Internship Program Overview - Part Fourteen16. Internship Program Overview - Part Fifteen17. Internship Program Overview - Part Sixteen18. Internship Program Overview - Part Seventeen19. Internship Program Overview - Part Eighteen20. Internship Program Overview - Part Nineteen21. Internship Program Overview - Part Twenty22. Internship Program Overview - Part Twenty-One23. Internship Program Overview - Part Twenty-Two24. Internship Program Overview - Part Twenty-Three25. Internship Program Overview - Part Twenty-Four26. Internship Program Overview - Part Twenty-Five27. Internship Program Overview - Part Twenty-Six28. Internship Program Overview - Part Twenty-Seven29. Internship Program Overview - Part Twenty-Eight30. Internship Program Overview - Part Twenty-Nine31. Internship Program Overview - Part Thirty	<h3>Internship program overview</h3> <p>➔ Part Three</p>
 <p>2020 VIRTUAL SUMMER INTERNSHIP SCHEDULE</p> <p>PROCESSES OF INTERNSHIP & OBSERVATION</p> <p>INTERNSHIP SCHEDULE</p> <p>FINAL OBSERVATIONS</p> <p>BART SUMMER INTERNSHIP PROGRAM</p>	<h3>2020 virtual summer internship schedule</h3> <p>➔ Part Three</p>	 <p>SUMMER INTERNSHIP INTERVIEW QUESTIONS 2020</p> <p>Candidate Name: _____ Date: _____</p> <ol style="list-style-type: none">1. What year were you born?2. How many years of experience do you have in the transit industry?3. How many years of experience do you have in the transit industry?4. How many years of experience do you have in the transit industry?5. How many years of experience do you have in the transit industry?6. How many years of experience do you have in the transit industry?7. How many years of experience do you have in the transit industry?8. How many years of experience do you have in the transit industry?9. How many years of experience do you have in the transit industry?10. How many years of experience do you have in the transit industry?11. How many years of experience do you have in the transit industry?12. How many years of experience do you have in the transit industry?13. How many years of experience do you have in the transit industry?14. How many years of experience do you have in the transit industry?15. How many years of experience do you have in the transit industry?16. How many years of experience do you have in the transit industry?17. How many years of experience do you have in the transit industry?18. How many years of experience do you have in the transit industry?19. How many years of experience do you have in the transit industry?20. How many years of experience do you have in the transit industry?21. How many years of experience do you have in the transit industry?22. How many years of experience do you have in the transit industry?23. How many years of experience do you have in the transit industry?24. How many years of experience do you have in the transit industry?25. How many years of experience do you have in the transit industry?26. How many years of experience do you have in the transit industry?27. How many years of experience do you have in the transit industry?28. How many years of experience do you have in the transit industry?29. How many years of experience do you have in the transit industry?30. How many years of experience do you have in the transit industry?31. How many years of experience do you have in the transit industry?32. How many years of experience do you have in the transit industry?33. How many years of experience do you have in the transit industry?34. How many years of experience do you have in the transit industry?35. How many years of experience do you have in the transit industry?36. How many years of experience do you have in the transit industry?37. How many years of experience do you have in the transit industry?38. How many years of experience do you have in the transit industry?39. How many years of experience do you have in the transit industry?40. How many years of experience do you have in the transit industry?41. How many years of experience do you have in the transit industry?42. How many years of experience do you have in the transit industry?43. How many years of experience do you have in the transit industry?44. How many years of experience do you have in the transit industry?45. How many years of experience do you have in the transit industry?46. How many years of experience do you have in the transit industry?47. How many years of experience do you have in the transit industry?48. How many years of experience do you have in the transit industry?49. How many years of experience do you have in the transit industry?50. How many years of experience do you have in the transit industry?51. How many years of experience do you have in the transit industry?52. How many years of experience do you have in the transit industry?53. How many years of experience do you have in the transit industry?54. How many years of experience do you have in the transit industry?55. How many years of experience do you have in the transit industry?56. How many years of experience do you have in the transit industry?57. How many years of experience do you have in the transit industry?58. How many years of experience do you have in the transit industry?59. How many years of experience do you have in the transit industry?60. How many years of experience do you have in the transit industry?	<h3>Summer intern interview questions</h3> <p>➔ Part Three</p>

San Francisco Bay Area Rapid Transit (cont.)

hires don't have the skills it needs, and the agency also has had difficulty promoting from within to address these skills gaps.

To remedy the first issue, BART is seeking to partner with educational institutions to help them align their electronics training to better meet BART's needs, to include train control elements, for example.

But the agency also has created a new initiative to help fill these needs from within its current workforce: an upgrade program that lets current employees in non-skilled trades move into skilled trades classifications, such as a utility worker who is interested in becoming an electronic technician. These union-negotiated programs include on-the-job training, as well as classroom training offered in partnership with local community colleges.

The programs are only a few years old—and were on hold in 2020 because of the hiring freeze—but the agency is encouraged that the model itself has been successful. Attainment of the needed certificate at the community college is generally covered through the agency's tuition reimbursement program, Rhoe said, and the employees' shifts are changed as necessary to accommodate them being able to attend the training.

"These are some of our entry-level technical classifications, and then we also have some trade areas that we've experienced difficulties with in terms of track workers and structures workers on the construction side of the house. We've made some strides in all those areas," Bajaj said.

▼ RELATED MATERIALS



["Portraits of women rail workers at BART, in their own words" article](#)

[External link](#)

Sound Transit (Seattle)



Sound Transit has made workforce readiness a strategic priority, focusing on developing its talent pool organically with on-site events for teens, work opportunities for college students and early career professionals, and ongoing support and training for employees.

Interviewees: Julie Honeywell, chief human resources officer, and Alison Smith, deputy director of equity, inclusion and culture

Workforce development

Most Sound Transit employees are focused on large capital expansion projects, with service operations overseen by agency partners, so the agency's workforce readiness efforts are focused on its planning, and design/construction and engineering groups—roles that typically require a college degree and several years of experience. But with an average employee age of around 43, the agency has been focusing heavily in the past

several years on creating opportunities for early career professionals and then helping those employees to achieve their education, training and leadership goals while working at the agency.

Sound Transit also established the Office of Civil Rights, Equity & Inclusion (formerly the Office of Equal Employment Opportunity, Equity & Inclusion). Its mission is to ensure an equitable system that grows and sustains a diverse workforce, fosters an inclusive culture and builds organizational capacity.

These are a few of the successful efforts:

- **Onboarding:** New employees are assigned a “peer buddy” who meets with them regularly over the first six months. As a cohort, new hires meet about every six weeks at events that include networking, a chance to share their experiences and the opportunity to hear from various speakers from within the agency.
- **Mentoring:** Mentoring is available for employees at all levels of the organization; more junior workers are matched with people skilled in the areas they want to work on.
- **Education:** Sound Transit is working with a company called [Working Scholars](#), which partners with colleges and universities across the country to provide full-time employees a far less expensive route to a bachelor’s degree that can be completed in short bursts of online coursework. After completing three years of the degree program, students finish their final year at the university of their choice and pay only a discounted single year of tuition.
- **Career ladders:** The agency is in the early stages of identifying good employee entry points and structuring meaningful job descriptions that can be filled by early career professionals while also providing a ladder to advancement in the agency. “Once we’ve developed, for example, an engineering role that’s right out of college, we work both backward—promoting internships and awareness so that we’re developing good talent pools—and forward into getting their training certification, all the way through to their PE,” Honeywell said.
- **Leadership development:** Sound Transit offers four tiers of leadership development, beginning with front-line workers who are interested in advancing their careers. “These are based on our leadership competencies and values,” Honeywell said, “so it’s really around behaviors and how to be successful in the agency—collaboration skills, diversity and inclusion, respect, public stewardship, integrity, quality—and not so much a focus on technical skills.”
- **Employee Resource Groups and Employee Resource Networks:** ERGs and ERNs are essential to Sound Transit’s equity and inclusion strategy. Established since spring 2018, the five Employee Resource Groups (soon to be six) and four Employee Resource Networks allow staff members to connect to a network of co-workers who share similar identities and experiences, build community, and identify solutions to further the mission, vision and values of Sound Transit. More than 400 staff members participate.

▼ RELATED MATERIALS



Working Scholars presentation

→ Part Three



[Office of Equal Employment Opportunity, Equity & Inclusion 2018 annual report](#)

↗ External link

Sound Transit (Seattle) (cont.)



[Office of Equal Employment Opportunity, Equity & Inclusion presentation](#)

[External link](#)

Facility tours and events

Outreach to high school students begins with rising ninth-graders through a partnership with the University of Washington's [Summer Bridge](#) program. This program's goal is to introduce incoming high school students—with a focus on girls and students of color—to STEM careers, which includes job awareness and worksite tours at area companies.

Sound Transit also partners with two consulting firms working in the areas of capacity-building and social change, [Kinetic West](#) and [RoadMap](#). These organizations work with South King County high schools to provide ninth- and tenth-grade students exposure to different workplaces in the region.

These half-day events pose a bit of a challenge at the Sound Transit campus, which is “just a lot of offices and cubicles,” Smith said. “Students don't want to just sit there and listen to people talk. They want to be engaged, have conversations with folks and do some sort of hands-on project.” Among the agency's solutions to this problem is creating a “speed networking” opportunity similar to speed dating, where students quickly rotate among conversations with employees representing different parts of the agency. The events also include a hands-on activity planned by the engineering or construction teams.

▼ RELATED MATERIALS



[“Appreciation breakfast celebrates third year of worksite tours” article](#)

[External link](#)

College-level summer internships

As part of its concerted effort to hire younger professionals, Sound Transit has in the past few years created a full-time paid summer internship program for college students. “Most of our positions had a requirement of at least five years of experience,” Honeywell said. “We're hoping to show that you can actually have some positions for recent college graduates and that we can successfully transfer these interns into roles at Sound Transit. But in the meantime it's still a great way to show our younger workforce what careers in transit could look like.”

Sound Transit (Seattle) (cont.)



Courtesy of Sound Transit

Students are recruited from around the country, and the agency engages with COMTO to provide candidates as well. All interns get paired with a mentor, and they are exposed to careers and executives in the entire agency, not just in their area of interest. The agency provides them with professional development training, such as interviewing and resume-writing skills. And interns also get the opportunity to attend professional conferences.

▼ RELATED MATERIALS



Internship program overview

➔ Part Three



Internship program brochure

➔ Part Three



Intern job description: Art and architecture

➔ Part Three

Activity	Start Date	End Date	Location
Orientation	June 17, 2019	June 17, 2019	Seattle, WA
Project Kick-off Meeting	June 18, 2019	June 18, 2019	Seattle, WA
Project Kick-off Meeting	June 19, 2019	June 19, 2019	Seattle, WA
Project Kick-off Meeting	June 20, 2019	June 20, 2019	Seattle, WA
Project Kick-off Meeting	June 21, 2019	June 21, 2019	Seattle, WA
Project Kick-off Meeting	June 22, 2019	June 22, 2019	Seattle, WA
Project Kick-off Meeting	June 23, 2019	June 23, 2019	Seattle, WA
Project Kick-off Meeting	June 24, 2019	June 24, 2019	Seattle, WA
Project Kick-off Meeting	June 25, 2019	June 25, 2019	Seattle, WA
Project Kick-off Meeting	June 26, 2019	June 26, 2019	Seattle, WA
Project Kick-off Meeting	June 27, 2019	June 27, 2019	Seattle, WA
Project Kick-off Meeting	June 28, 2019	June 28, 2019	Seattle, WA
Project Kick-off Meeting	June 29, 2019	June 29, 2019	Seattle, WA
Project Kick-off Meeting	June 30, 2019	June 30, 2019	Seattle, WA

Intern schedule

➔ Part Three

Non-Technical			
Degree	Hourly Min	Hourly Midpoint	Hourly Max
Bachelor's	\$17.00	\$20.00	\$23.00
Master's	\$20.00	\$24.00	\$27.00

Technical			
Degree	Hourly Min	Hourly Midpoint	Hourly Max
Bachelor's	\$20.00	\$23.00	\$27.00
Master's	\$23.00	\$27.00	\$30.00

Intern pay grades

➔ Part Three



Presentation instructions and example for interns

➔ Part Three

Sound Transit (Seattle) (cont.)



Intern exit interview template

→ Part Three

Toronto Transit Commission



The TTC has several programs to expose students to the agency and to transit careers, as well as to guide them in workforce readiness. It is now working on centralizing more of these efforts and creating a seamless pipeline into entry-level jobs.

Interviewees: Matt Hopkins, manager of talent management, and Marika Fraser, manager of Outreach and Diversity, Human Resources

Pre-apprenticeships

A TTC hiring manager has independently begun a program called Front of the Line that brings in several dozen truck and coach technician apprentices each year. If these students work out well and want to stay, the pre-apprenticeships often give them enough hours toward their [Certificate of Qualification](#) to be hired directly into full-time roles after high school or college graduation, Fraser said. The hiring manager has created a partnership to promote the program to automotive students in the Toronto District School Board as part of their practicums.

Front of the Line is a competitive program that favors students with good grades and attendance, Fraser said, and the schools conduct the initial screenings and decide who gets referred to TTC. “They know about our diversity initiative, so they keep that in mind when they’re doing the screening,” she said. “In this case, what we’re looking for is specifically women, attracting young girls to consider that this is an opportunity for them.”

Truck and coach technicians are a job category with a lot of upcoming retirements, Fraser said, and attrition also has gone up year over year. “This hiring manager realized that we needed a stronger feeder pool, and this is a role a lot of young people are not aware of, especially in high school,” she said. “You don’t want to wait for them to get to a college program, which has not necessarily been developed to our needs.”

Pre-apprenticeships are unpaid, but students get a free TTC pass and can earn up to four Ontario Secondary School Diploma credits.

Toronto Transit Commission (cont.)

▼ RELATED MATERIALS



Front of the Line program flyers

→ Part Three

Co-op program

TTC partners with Toronto's secondary and postsecondary institutions to provide trades students hands-on experience as part of Canada's many cooperative education programs. A program coordinator at the agency ensures that students' training and work activities align with the curriculum, and students receive high school or college credit for completing their co-ops. In 2019, as many as 220 high school and college students chose TTC for their co-op placements.

High school students are either placed in the operations department or work as entry-level administrators. They are not paid aside from school credit but do receive a transit pass. College students are paid an hourly wage as well as receiving credit.

▼ RELATED MATERIALS



STEP to Transportation brochure

→ Part Three

College internships

TTC hires about 260 full-time postsecondary students every summer in its paid Summer Student Program, which runs from early May through the end of August and helps the agency cover its summer vacations.

Hiring managers from departments all over TTC submit requisitions to HR annually, depending on need and budget. The program then places students in a variety of positions, including in maintenance, finance, engineering, the garage, customer service, and HR, among others.

The agency advertises its internships through the city of Toronto's youth programs, through community agencies and job programs, and targets students from developing neighborhoods, Fraser said. The program is extremely competitive, regularly attracting a few thousand applications.

These summer internships only rarely lead to full-time employment, however, an issue the agency has identified as a gap in its workforce development. "The folks I know who have come on through the Summer

Toronto Transit Commission (cont.)

Student Program did the program, left, acquired experience elsewhere, and then came back,” Fraser said. “I’ve heard many instances where hiring managers want to keep the students but there isn’t an opportunity from a budgetary perspective.”

Hopkins said any such entry-level hiring programs so far have arisen organically through individual hiring managers, but TTC is interested in centralizing the process through HR so there’s a unified corporate strategy to hire young workers.

Recruiting

In 2019 TTC hosted its inaugural Trades Expo, a two-day event for interested applicants to learn more about skilled and semi-skilled trades and interview with hiring managers on the spot. The event attracted more than 4,000 people and resulted in about 137 hires. “It was good in that we attracted a very large audience, the applicants had the skills we were looking for, and many of them were onboarded,” Fraser said. “In terms of retention, that’s the part we’re waiting to see.”

Hiring from such a huge pool turned out to be a logistical challenge, Fraser said, but the agency was pleased at the broad, diverse and qualified audience it reached. It plans to scale back any future such events to one day. “Our goal was to cast the widest net possible, which is a good way to start,” Hopkins said. “But we’ll try to see if we can rein it in a bit, be a bit more strategic about the demographic groups we target.”



TTC also markets itself at career fairs at schools and community-based organizations with two primary goals:

- **Raising awareness of all the job opportunities available.** “It doesn’t even occur to people all the different things it takes to run a transit agency,” Hopkins said.
- **Helping people understand job readiness.** “We answer questions, walk them through the recruitment process and give them insight as to the expectations that a hiring manager is looking for,” Fraser said.

Hopkins said a key to recruiting young employees is to focus on the innovative technology used in the transit industry. “We need to be aware that as a public sector agency, we may be viewed as an old agency, a legacy

Toronto Transit Commission (cont.)

company,” he said. “When we promote our brand, we have to focus on what is exciting for young people. We have a lot of really cool stuff going on here that only a handful of places have in North America, or in the world, in terms of our technology and the vehicles we have.”

▼ RELATED MATERIALS

 <p>TTC's Trades Expo</p> <p>The TTC is holding a Trades Expo. This is your opportunity to speak to TTC staff and recruiters, and learn about many exciting opportunities and career possibilities in transit, from control, operations, technical and service production roles.</p> <p>November 28 and 29, 2018 10:00 AM to 4:00 PM Manufacturers Hall and Grand Stairs 3000 Yonge Street Toronto, Ontario M2X 1E4</p> <p>Please bring your own copy of your resume. Please pre-register for the expo at Expo18. Resumes will be accepted by the TTC. There is also limited free parking at the venue. The TTC is committed to creating a positive workplace culture with a commitment that is representative of our core values: Customer, Innovation, Integrity, Respect and Service.</p>	<p>Trades Expo flyer</p> <p>➔ Part Three</p>	 <p>Transportation</p> <p>Specialized Trades Certification Program</p> <p>Control Co-Op Program</p>	<p>“Behind the scenes at TTC: Skilled and other trades” brochure</p> <p>➔ Part Three</p>
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TransLink (Vancouver, British Columbia)



TransLink is preparing for a potential wave of retirements by reaching out to high school students and strongly promoting diversity and inclusion.

Interviewee: Andrew Croke, HR Business Partner, Employee Relations

Outreach to students

The focus of TransLink’s high school outreach, Croke said, is to “plant a seed” to help students understand that the organization includes much more than its buses and SkyTrain rail system, and that the job opportunities are diverse and vast. “We feel strongly we have to get them when they’re younger,” Croke said. “By the time they go to college, they’ve already made up their minds as to where they want to go and what they want to do.”

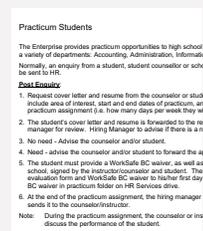
Current outreach includes taking part in job fairs targeted at high schools, colleges and universities, and indigenous students. TransLink also encourages employees to bring in their young high school–age children for “bring your child to work day,” in which the students shadow their own parents but also get exposure to the entire agency, with tours of the bus, SeaBus and rapid transit system.

TransLink also has a high school job shadowing/work experience practicum that it is working with a newly hired senior manager to expand. Interested students submit a cover letter and resume, undergo a short interview process, and then take part in job shadowing opportunities and training for school credit.

TransLink also offers a number of student positions, four to eight months in length, in which students get pay and degree credit working in a variety of roles in diverse fields such as enterprise asset management, engineering, or communication. Some of the participants have become full-time employees after graduation.

TransLink (Vancouver, British Columbia) (cont.)

▼ RELATED MATERIALS



Practicum student procedure

➔ Part Three

Summer jobs for college students

Every summer, TransLink opens 15 to 20 summer positions for students enrolled in a college or university, including some students just out of high school. The hiring helps to cover summer vacations for year-round TransLink employees. The program is quite popular, Croke said, as the students receive union wages.

“They’re being exposed to our company, so then they pursue an apprenticeship of becoming a heavy-duty mechanic or electronic technician, and then they’ll pursue a career with us,” Croke said. “It definitely pays off for us, for coverage as well as exposure.”

▼ RELATED MATERIALS



Summer job postings: Social media assistant, transportation planner, BCRTC engineering coop student

➔ Part Three



Summer student feedback form

➔ Part Three

Diversity and inclusion

TransLink partners with the British Columbia Institute of Technology (BCIT) to provide job shadowing for students in its [Trades Discovery for Women](#) program and its [Enhanced Bridge Watch Rating](#) program for women and indigenous learners. Students in these programs also complete a two-week practicum at a worksite of their choosing, with several choosing TransLink. This partnership helps with transit career awareness, but the agency has plans to be even more proactive in its outreach to these students.

With the Bridge Watch program partnership, the hope is to have all students get a chance to tour TransLink’s SeaBus facility and the vessels, as well as to speak with marine masters who can talk about the industry and job opportunities. Trades students would have a similar experience, but in bus and rail maintenance facilities with the Trades Discovery for Women program.

“We have state-of-the-art facilities, so we want to promote what we have to offer for them to be interested in us for their practicum—and hopefully increase our numbers when it comes to people interested in apprenticeship for maintenance and other positions,” Croke said.

TransLink (Vancouver, British Columbia) (cont.)

Another outreach program is TransLink’s involvement with groups providing services to immigrant communities. TransLink staff members give a short presentation about the organization and the job possibilities, and then assist participants with critiquing their resumes, cover letters and interviewing skills. “It’s rewarding because a lot of the new citizens didn’t realize entry-level positions in transit were even an option for them,” Croke said.

The organization has recently formed an Equity, Diversity and Inclusion Task Force to support and expand these efforts. Outreach to recruit a diverse staff is “important to us because we have such a diverse community,” Croke said. “Our transit system relies on the community as much as the community relies on the transit system.”

Employee development

TransLink offers free internal training programs for leadership development, including modules on organizational skills, communication skills, career coaching, time management, project management and many other areas. If employees want to take courses outside the agency, they can receive a 50 percent tuition reimbursement, plus the cost of books and materials.

TransLink also offers an ongoing mentoring program that pairs newer employees with more experienced ones for an informal monthly learning experience. Mentors and mentees can join or leave the program at any time.

▼ RELATED MATERIALS



[Leadership and Management Development Program overview](#)

🔗 External link

TriMet (Portland, Oregon)



TriMet’s outreach to younger and underserved workers includes career fairs, work with nonprofit and community organizations and—prior to COVID-19—entry level opportunities within TriMet’s operational divisions.

Interviewee: Angela Burns-Brown, director of talent management

Career fairs and partnerships

TriMet co-sponsors and participates in a number of career fairs, including the [Oregon Tradeswomen’s Career Fair](#), the Portland Workforce Alliance [NW Youth Careers Expo](#) and its own [Steer Your Career Hiring Events](#). The Steer Your Career events—which were on hiatus in 2020 because of the COVID-19 crisis—make it easy

TriMet (Portland, Oregon) (cont.)

for interested applicants to apply. Attendees can be interviewed by hiring managers right at the event, and the agency brings in computers or tablets for people to use to complete their applications on the spot. The featured jobs at this event vary depending on what the agency's current hiring needs are.

TriMet is intentional about maintaining its relationships with partners that serve underrepresented communities; most job recruiters are assigned to work directly with specific organizations. One example is the [Immigrant and Refugee Community Organization](#), which works with immigrants living in Oregon. A TriMet staff member regularly goes on-site to the IRCO office in Portland to educate staff and clients about the careers available at TriMet and the skills needed to apply.

▼ RELATED MATERIALS



[Oregon Tradeswomen's Career Fair video](#)

↗ External link



Workforce Expo ad

➔ Part Three

Entry-level jobs and career pathways

TriMet has looked at statistical data to identify areas where it might face workforce challenges and has identified its maintenance and transportation areas as of primary concern. Prior to COVID-19, young workers could enter TriMet as service workers in the Maintenance Division in a bus operator position and be eligible for promotional opportunities. TriMet is currently assessing its training programs to meet upcoming workforce needs.

COVID-19 did create a new entry-level opportunity at TriMet: cleaners who wipe down the high-touch areas of bus and rail vehicles in the Maintenance Department. The job requires only a standard driver's license and a clean driving record, and many of the hires were recent high school graduates and community college students.

“When talking with many of those cleaners, they say, ‘Gosh, TriMet’s a great place to work, and I’m hoping that there are other opportunities that I can move into,’ ” Burns-Brown said. “We’re hoping that would be the case as well.”

Within Transportation and Maintenance Operations, there are many internal promotional opportunities, creating a career path for interested and good-performing employees.

As the agency looks to the future, Burns-Brown said, the goal is to consider and address the its workforce needs, including updating excessively restrictive job descriptions. “It will be imperative to assess actual skills needed to attract a diverse workforce and to continue to be a reflection of our community,” she said.

PART THREE

Sample Materials

JUMP TO MATERIALS RELATED TO:

Apprenticeships

Internships

Awareness

Recruiting

Education

Training

Entry-level jobs



APPRENTICESHIPS

Long Beach

BUSINESS JOURNAL

August 4-17, 2015

A Changing Perception of Apprenticeships



■ Trade and Transportation
By Thomas O'Brien

A July 13 article in the New York Times showcased an apprenticeship program at a Virginia naval shipyard. Around the same time, Democratic Presidential candidate Hillary Clinton proposed a tax credit for companies that take on apprentices. It's a call that has been taken up by others, including some on the Republican side as well.

Apprenticeships aren't new but they're enjoying renewed attention. The typical apprenticeship includes a paid salary for on-the-job training with some classroom-based instruction as part of the mix. In places like Germany, which has one of the best known and most successful programs in the world, employers are willing to invest in apprenticeships because they get workers with job-specific skills. Furthermore business chambers and trade associations play a critical role in developing and overseeing training standards and defining the skill sets that apprentices need.

In the U.S. students are more likely to take part in a shorter-term internship, which provides valuable work-based experience, often during the summer as part of a two-year or four-year college program. But that's significantly shorter than the two-to-three year period that is the hallmark of the relationship between apprentice and employer.

Part of the challenge in this country has been the perception of on-the-job training programs, which are often viewed as lesser alternatives to a degree conferred by a two-year or four-year institution. It's the same problem that vocational education programs have had in high schools. Many have viewed them as pathways to lesser-skilled employment opportunities with little opportunity for advancement.

But that's beginning to change. Given the cost of a college degree, the debt many of us have incurred to get that degree, and the uncertainty of employment once graduated, the prospect of any salaried position that is designed to prepare you for employment in a particular field is increasingly appealing to many young people.

At the national level, President Obama has made it a goal to more than double the number of young Americans in apprenticeship programs from 325,000 to 750,000 in five years. And last year, the Department of Labor made available \$100 million in grants to employers, training providers, and apprenticeship and workforce

agencies to enhance training opportunities as part of the "American Apprenticeship Initiative." Some of the emphasis of the Initiative is placed on "registered" apprenticeships in the trades. But the eligible applicants for the grant program also include those tied to economic sectors which rely heavily on foreign workers here on H1-B visas, visas for knowledge-workers performing functions usually developed at institutions of higher education. These are the jobs many employers say Americans are not well equipped to fill. Proof again that this is not your father's apprenticeship.

And all sides see the upside of expanding our range of education and training options. Apprenticeships were included in the Regional Economic Strategy for the Central Puget Sound in Washington State. This is a plan issued by a coalition of business, labor and governmental and community leaders.

Closer to home, pre-apprenticeship programs have been proposed as part of a Project Labor Agreement for all construction projects at the Port of Long Beach. And as part of a College and Career Fair held on the Cal State Long Beach campus last fall, the Port held a workshop open to local high school students called "Earn While You Learn: Apprenticeships."

Pre-apprenticeship programs can play a critical role in providing foundational knowledge to the new apprentices before they set foot in the workplace. It's a role well-suited to colleges and universities, particularly those of us already engaged in professional development and continuing education. And in logistics, where the potential for apprenticeships is great, a basic understanding of how the supply chain works will go a long way in preparing someone to be apprenticed at the port, in a warehouse, at a 3PL or even in an additive manufacturing (3d printing) company where advanced technical skills may be required.

The university works closely with industry, but as the industry needs change - and the expectations of the student - so must our approach. A rise in apprenticeships may require us to develop more pre-apprenticeship courses, restructure others so that classes are offered in a way that fits the work schedule of the apprentice (who may have availability only 1 day per week) and provides knowledge that can be applied on a particular job. But this isn't a zero sum game. A vibrant economy should hold opportunities for people with advanced degrees as well as those with apprenticeship training.

Dr. Thomas O'Brien is the Interim Executive Director for the Center for International Trade and Transportation (www.ccpe.csulb.edu/citt) at CSULB and the Associate Director of Long Beach Programs for the METRANS Transportation Center (www.metrans.org). METRANS is a joint partnership of the University of Southern California and California State University, Long Beach.



SCHOOL TO WORK PROGRAM

The School to Work program at Cummins is a partnership with high school vocational and technical automotive or diesel programs to identify talented students during their high school years. Students selected for the program can work in Cummins facilities after reaching legal working age of 16 in the United States.



HANDS-ON LEARNING
AT A LOCAL FACILITY



EARN MONEY
WHILE LEARNING
YOUR TRADE



WORK EXPERIENCE
ACCELERATES YOUR
CAREER GROWTH

SALES AND SERVICE PROGRAMS
careers.cummins.com

STUDENT REQUIREMENTS

- » Must be at least 16 years of age in the U.S. to participate
- » Must participate in high school automotive or diesel vocational educational program and maintain academic studies
- » Must maintain a minimum 2.8 GPA to remain in the program
- » In the U.S., student and instructor must work together to complete identified competencies during the student's junior and senior years
- » Must work the designated number of hours at the Cummins facility during the program each year (in U.S., students work up to 19 hours per week during school year, no restrictions during summer months when out of school)
- » Meet safety compliance requirements
- » Be on time each day and work well with mentor

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WHO WE ARE

EST. **1919**

Our company consists of five complementary business segments.

Engines. New Power. Distribution. Components. Power Systems.

The largest independent diesel engine manufacturer in the world, with related products in the **United Kingdom (1959), India (1965), Brazil (1971), China (1978) and Mexico (1985).**

WHERE WE ARE

WORLD HEADQUARTERS
COLUMBUS, INDIANA

We serve customers in more than **190 COUNTRIES.**

POWERING YOUR POTENTIAL

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WE PROVIDE THE TOOLS TO TAKE YOUR IDEAS TO THE NEXT LEVEL

POWERING YOUR POTENTIAL



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CUMMINS SALES AND SERVICE

Cummins Inc., a global power leader, is a corporation of complementary business segments that design, manufacture, distribute and service a broad portfolio of power solutions.

Cummins provides support and service to our customers across a wide variety of industries and power needs. Our teams work in the shop, in the office, in the field and customer sites. Wherever and whenever we are needed, we are there. This is Sales and Service.

Each sales and service branch is like a diverse family — and that feeling is shared by our customers as well. As we support each other, the culture of our work environment grows to feel more comfortable and inclusive for everyone.

The Cummins Technician Apprentice Program and School to Work program provide different tools and programs to accelerate an employee's career.



SALES AND SERVICE PROGRAMS
careers.cummins.com

TECHNICIAN APPRENTICE PROGRAM

The Cummins Technician Apprentice Program is a four year government-registered apprentice program. A collaboration between Cummins, community colleges, the U.S. Department of Labor and, in some states, the local department of labor. Students must have an unweighted high school GPA of 2.8 to participate.

With both on-the-job training to embed skills in a real-world context and formal education in a classroom setting, apprentices achieve the highest recognized industry standards.

PROGRAM OVERVIEW

A formal written apprenticeship agreement with Cummins ensures you receive the following upon successful completion of the program:

- » Hired as a full time employee with benefits on your date of hire
- » Progressive wage scale
- » Snap-on® tool box and tools when you begin the program
- » Earn an Associate of Applied Science degree during first 2 1/2 years
- » Last 18 months of program is career focused
- » Assigned mentor to support career development
- » No college debt — all tuition and travel costs are paid for by Cummins



ENGINE TECHNICIAN APPRENTICE PROGRAM

When in the program, you will graduate from college with an Associate of Applied Science degree in Diesel Engine and Heavy Equipment Technology. Following college graduation, you will take additional classes at one of our Service Training Centers for advanced training providing you an opportunity to:

- » Continue in the shop as a technician for diesel and natural gas engines
- » Attend service leadership training classes to prepare for leadership opportunities
- » Move into a service truck as a field service technician for agriculture, construction, logging, mining or power generation planned maintenance

POWER GENERATION TECHNICIAN APPRENTICE PROGRAM

When in the program, you will be in the shop during your first year, learning diesel engines and quickly progress to Power Generation support in Field Service. Specific training at the college to include:

- » Diesel engine systems and maintenance
- » Fundamentals of alternating current
- » NFPA70E electrical safety training
- » Preventive maintenance for power generation products
- » Automatic transfer switch controls
- » Power generation controls and systems



I have gained so much since joining Cummins! I have improved my time management skills, strengthened my leadership skills, graduated valedictorian with an Associate of Applied Science and most importantly, found a company to aid in my endeavor for excellence.

KATIE K.
FORMER TAP ASSOCIATE, NOW SERVICE TECHNICIAN

careers.cummins.com
#LifeAtCummins

Depending on the program you choose, your first two and a half years will be dedicated to engine or power generation fundamentals, then you will have the opportunity to focus on one of these five specialties:



DIESEL ENGINES
Light-duty, MidRange, heavy-duty and natural gas



HIGH HORSEPOWER
15L to 95L engines



MARINE
Pleasure and commercial vessels



POWER GENERATION
Consumer and commercial products



SERVICE OPERATIONS
Business management and process training

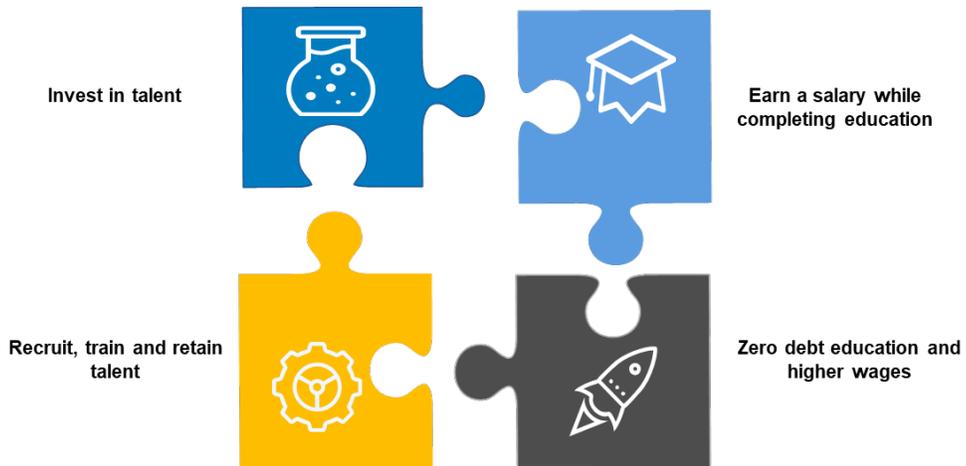
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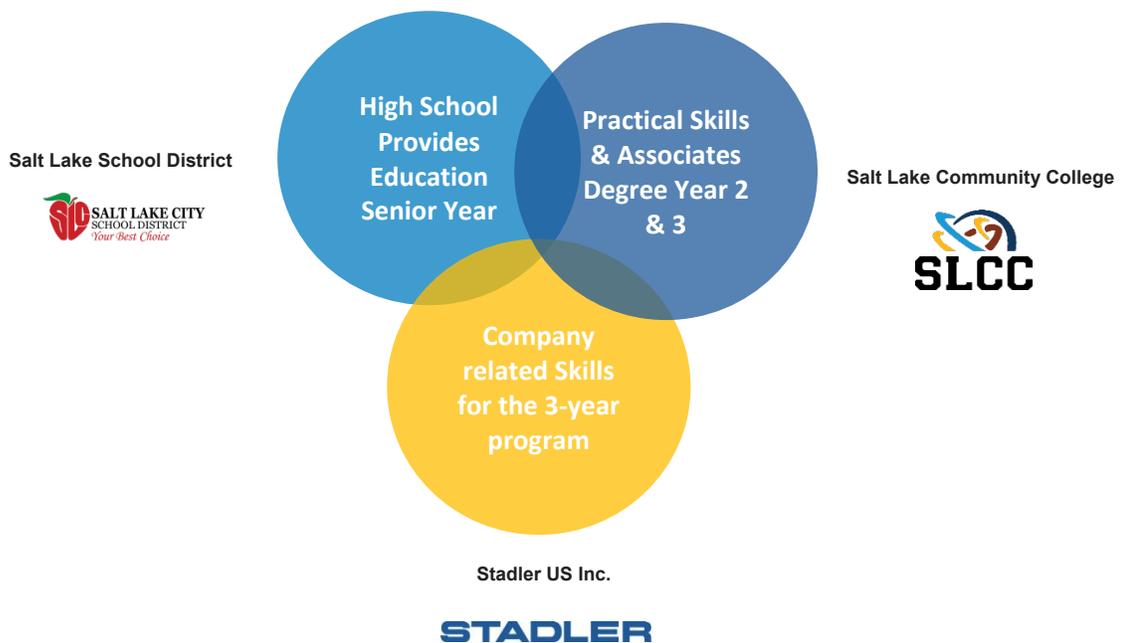


WHAT IS AN APPRENTICESHIP PROGRAM?

OUR VISION



THE TRAC APPROACH



APPRENTICE CURRICULUM MAP EDUCATION PLAN



General Education 16 credits/240 contact hours

- **Composition**
ENGL 1010 Intro to Writing
- **Quantitative Studies**
MATH 1010 Intermediate Algebra
- **Communications**
COMM 1010 Elements of Effective Communication
- **Human Relations**
CTEL 1010 Leadership & Teambuilding
- **Institutional**
PHYS 1010 Elementary Physics

Technical Courses 30 credits/550 contact hours

- Orientation to Advanced Manufacturing
- Technology and Professional Development I
- Advanced Manufacturing Principles I
- Technology and Professional Development II
- Advanced Manufacturing Principles II

Production Technician	Automation Technician
<ul style="list-style-type: none"> • Tools and Their Uses • Fasteners and Assembly • Carpentry and Fabrication • Fluid Power Systems 	<ul style="list-style-type: none"> • Electrical Theory • IPC/WHMA-A-620C Certification and motor controls • Power Distribution Systems • Automation Troubleshooting and Repair

Apprentice Capstone 18 credits/900 contact hours

- **Apprentice Journals**
- **6 credits/course, 18 total**
- **One class for each year**



Quarterly Review

Apprentice :

Department:

Trainer:

A. Expectations exceeded B. Expectations attained
C. Expectations barely attained D. Expectations not attained

1. Technical Competences	A	B	C	D	Comments
1.1 Level of training - Overall assessment based on the learning objectives					
1.2 Quality of work - Precision / Care					
1.3 Quantity of work, pace of work - Time required to perform work properly					
1.4 Practical application of technical knowledge Connection between theory and practice					
2. Methodological Competences	A	B	C	D	Comments
2.1 Work technique - Layout of the workstation / use of resources / thought given to the work to be completed / requests for further details					
2.3 Proper handling of tools and resources - Care / upkeep of equipment and tools / Eco-friendly / waste disposal					
3. Social Competences	A	B	C	D	Comments

3.1 Ability to work in a team and overcome conflicts - Contribution to the working atmosphere / honesty / attitude in the face of criticism					
3.2 Sense of cooperation - Understands others / ability to put themselves in other people’s shoes					
3.3 Information and communication - Ability to express oneself in a comprehensible manner / respect other people’s point of view / know the information process and act accordingly					
3.4 Customer-oriented skills - Contacts with customers / comprehend customers’ needs / helpfulness / kindness					
4. Personal Competences	A	B	C	D	Comments
4.1 Independence, responsible behavior - Initiative / sense of responsibility / personal contribution					
4.2 Reliability, tolerance to stress - Punctuality / compliance with deadlines / perseverance					
4.3 Good manners - Behavior which is adapted to the situation / kindness / appearance					
4.4 Motivation - Attitude towards the occupation / enthusiasm / willingness to learn					
5. Training journal	A	B	C	D	Comments
5.1 Relevance, completeness					
5.2 Spotlessness, presentation, clarity					

Test Results

Apprentice: _____ **Date:** _____

Trainer: _____ **Date:** _____

T.R.A.C. 2019 – 2021

Complete	Electrical	Task
	Learn how to lay cables according to cable channel drawings and harness layout documentation.	Lay harness in the correct channels on the train. Lay reserve tubes where necessary.
	Learn to read and identify cable collars.	Read and identify cable collars.
	Identify proper grounds for channel, build ground cable, identify types of grounds, earth, equipment, etc. Intro to schematics.	Install channel grounds according to documentation.
	Learn to identify cable types, pull and cut cable to cable table specs.	Pull cable and prep harness for connectors.
	Learn proper bundling of cables to prevent future problems. How to zip tie data cable vs power cable. Use of distance pieces. Proper way to break off from a bundle. Bend radius education.	Tie down harness in cable channels on train with proper procedures. Make inspection ready.
	Tie down harness in cable channels on train with proper procedures. Make inspection ready.	Build harting connector harness to given specification.
	Learn metric system as it pertains to cable harnessing. Learn how to read harnessing documentation, layout, parts list, and wire table. Find needed information on computer.	Identify parts needed per connectors, find given harness documentation on the computer and print needed resources. Build given harness.
	Learn to read on drawings where tie downs are needed. Learn how to measure for tie downs. Learn proper bonding method for surface, and learn where to find material needed.	Install sika fast tie down according to print and bonding instructions.

T.R.A.C. 2019 – 2021

Department Curriculum Production Name:

Complete	Interior	Task
	Become familiar with both cordless and corded drills, drilling speeds, and sizing up processes.	Visual inspection with plans, pilot holes, and sizing up holes.
	Getting familiar with plans and layout of car body, familiarization with fastening elements and their placement.	Gather plans and cover all drain holes in the floor. Checking newest indexes and redlines, and eliminating unnecessary marks.
	To read BOM list properly, complete a reusable kit from Bossard shelves.	Get the BOM, get the material and label correctly with the plan, the position and part number.
	Understanding the correct placement of fastening elements and installing them in an efficient manner.	Keep things clean and orderly, be methodical and efficient. Gather plans and install all fastening elements on the walls and ceilings.
	Insulation, to achieve a high quality end result with minimal damage, gaps, or poor installs.	Dry fit, visual inspection, peel and stick, taping where necessary and filling gaps.
	Stairs, must be covered with linoleum and other elements installed to ensure an easy installation in the wagon.	Add heavy layer to bottom of treads, add elements if necessary, prep and clean for glue and double stick tape, cut and glue down linoleum.
	Subfloor, construct floor substructure to proper height and spacing.	Add heavy layer to bottom of treads, add elements if necessary, prep and clean for glue and double stick tape, cut and glue down linoleum.
	To install floor covering, clearly and consistently on a prepared substrate.	Surface prep, application of profiles, trowel, glue, and roll out linoleum.

Complete	Mechanical	Task
	Understanding mechanical drawings.	Working independently with the drawings.
	Proper use of power tools.	Working with power tools properly.
	Calibration and maintenance of torque tools, and torque striping.	Independently working with torque procedures.
	Proper mounting techniques of mechanical parts.	Learn the basic mounting techniques with the trainer.
	Nut back plates, corrosion protection, bonding, C-channel nut installation, and fall protection while working on the roof and roof mounted components.	Prep work area, clean and install parts and hardware. Torque to proper spec, and apply torque striping. Apply corrosion protection.
	Knowledge of electrical cabinet mounting. Importance of team lifting and spotting possible dangers.	Study blue print, create a hardware and tool list. Check in required materials. Measure the location of the mounts. Team lifting.
	General understanding of the sanding system.	Preassemble small units to be installed in the equipment, install equipment with intended bonding, and inspect hose and cable management.
	Emergency coupler, understand the basic installation and function of the unit.	Check-in required materials, measure the location of the mount, and install coupler.

Complete	Pneumatics	Task
	Understanding pneumatic drawings.	Working independently with the drawings.
	To install press ring fittings correctly and efficiently.	Prep area and parts for install, adjust machine settings, press fitting.
	Proper pipe cutting techniques, and deburring of the pipe.	Cut pipe to proper length, make sure pipe is free of any debris using deburring tool.
	Pipe installation in the wagons.	Independently installing pipes in the wagon.
	Proper connection procedures of the pipes.	Hands on pipe connections.
	Understanding and installing pipe clamps.	Installing pipe clamps in the wagon.
	Proper installation of T-nuts in C-channels.	T-nut installation.
	Pressure testing procedures.	Executing the pressure test procedure.

Complete	Pneumatics	Task
	Learn to read bonding drawings.	Working independently with the drawings.
	Types of Sika and Sika products.	Learning different types of Sika.
	To learn the correct prepping procedure to create a good adhesive joint.	Clean with IPA, tape, scotch, clean with IPA, activate, and prime.
	Adhesive curing time.	Learning the curing time process.
	Adhesion failure	Learning about adhesion failure with trainer.
	To correctly place, bond, and seal a pass through. Free of bubbles, gaps, voids, or dog tails. Clean of any sika residue.	Apply sika to the prepped surface, place part in its correct location, and use correct spatula technique for the desired outcome.
	Bonding junction box covers, correctly placing and sealing properly.	Apply sika to the prepped surface, place part in its correct location, and use correct spatula technique for the desired outcome.

Complete	Truck Assembly	Task
	Basics to truck drawings.	Working independently with the drawings.
	Surface preparation	Preparing surfaces for procedures.
	Understanding bolts, grease, etc.	Installing bolts with proper techniques.
	Dynamic works of the trucks.	Working and understanding the dynamics of truck assembly.
	Torsion bars	Installing the torsion bars.
	Braking system	Installing the brakes.
	Suspension	Installing the suspension.
	Dampers	Installing the dampers.



TALENT READY APPRENTICESHIP CONNECTION (TRAC) OVERVIEW AND Q&A

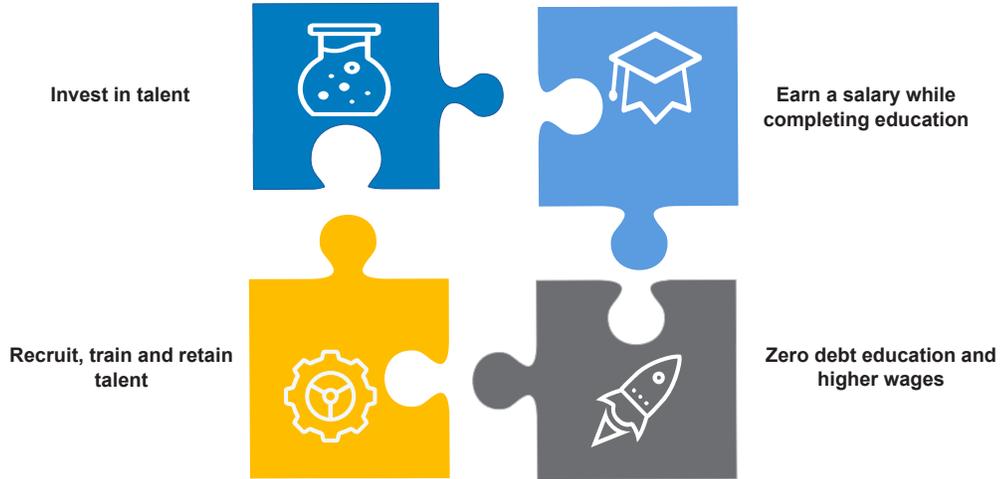
Salt Lake City, 04.16.2019

STADLER

Youth apprenticeship is a learning system that prepares students for work by giving them a combination of classroom instruction and paid on-the-job training

United States Dept. of Labor

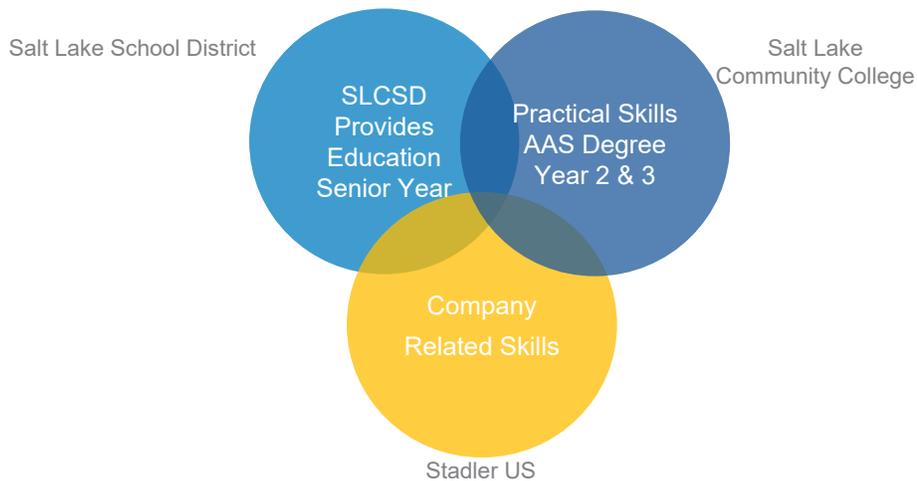
WHAT IS AN APPRENTICESHIP PROGRAM? OUR VISION



Youth apprenticeship is a learning system that prepares students for work by giving them a combination of classroom instruction and paid on-the-job training

3

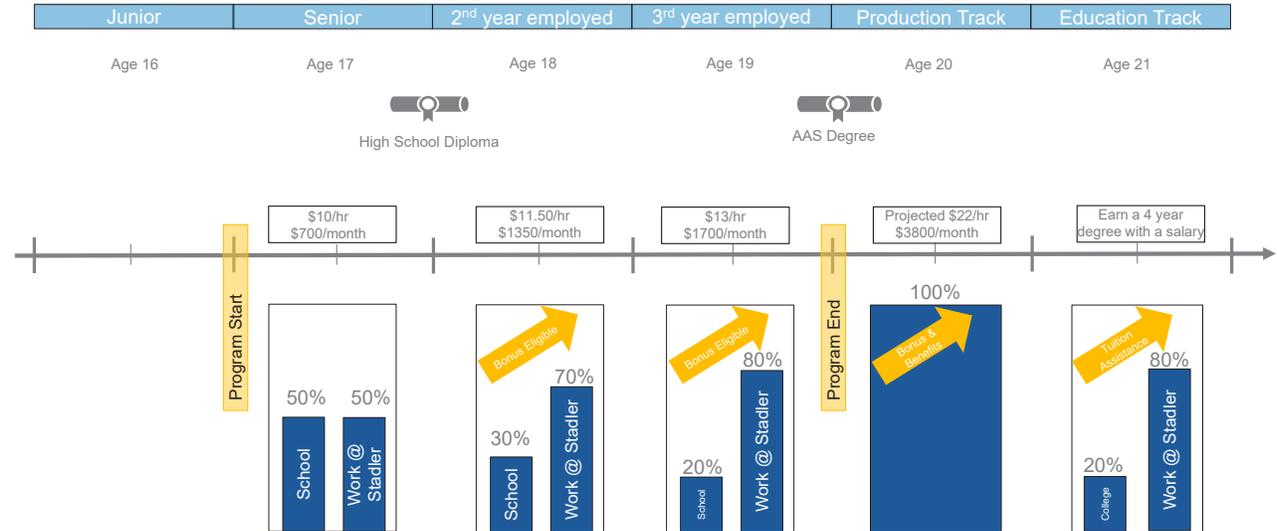
TRAC APPROACH HOW DOES IT WORK?



Collaborative partners working together to ensure a comprehensive education

6

TRAC SCHEDULE PROGRAM BEGINS SENIOR YEAR



7

COURSE STRUCTURE EDUCATION CONTENT

	Automatic Technician (Electrical)			Production Technician (Mechanical)		
	School (applied lectures) Salt Lake School District	School (theoretical lectures) Salt Lake Community College	Stadler	School (applied lectures) Salt Lake School District	School (theoretical lectures) Salt Lake Community College	Stadler
Year 1	Manually process and check workpieces	Mathematics Physics	Introductory Tasks	Measure and check workpieces	Mathematics & Physics	Introductory Tasks
Year 2	Install and Wire Apparatus & Components Controls & Components Measure & Check	Electrical Engineering Materials Technology Drawing Technology Standards & Apparatus	Supplementary Training* 1-2 selection projects of focus training**	Integration in Production Add components (welding & riveting) Rotate Milling	Materials Technology Drawing technology Connection, production, and machine technology General Education	Supplementary Training* 1-2 selection projects of focus training** Final Project
Year 3		General Education	Final Project			Final Project

Two different tracks depending on the student's main interests

10



SALT LAKE CITY SCHOOL DISTRICT

STADLER

- How is CTE is an integral part of student learning in our District?
- How will students in the SLCS D benefit from the Youth Apprenticeship Program?
- What support will my student receive so that he or she can be successful, as possible?
- What is the application process like?



Utah CTE Career PATHWAYS
Pathways to College & Career Readiness

School Year 2019-2020

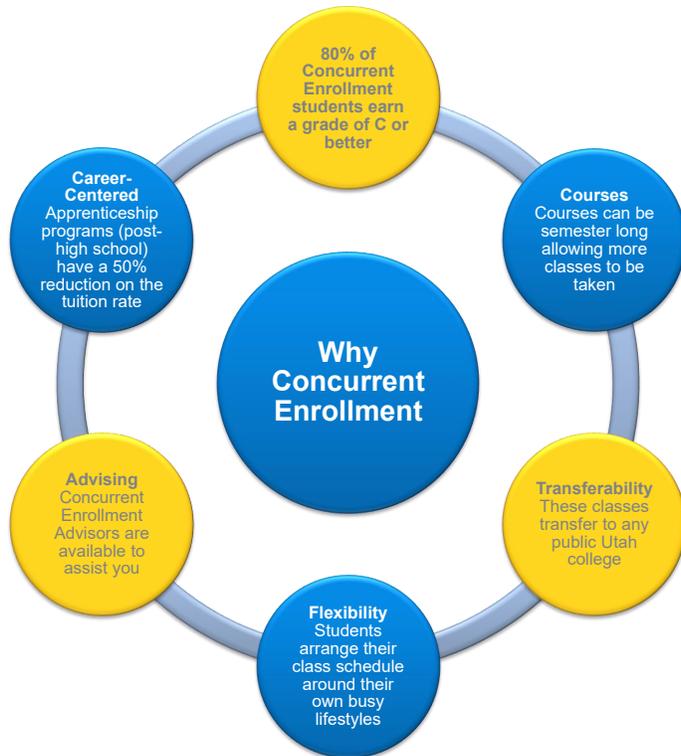


- Career Cluster***
> Career Pathway
- Agriculture, Food & Natural Resources**
> Agricultural Mechanics Systems
> Agricultural Production Systems
> Animal & Veterinary Science
> Food Science, Dietetics & Nutrition
> Natural Resource Science
> Plant Science
- Architecture & Construction**
> CAD Architectural Design
> Interior Design
Construction & Structural Systems
> Carpentry
> Electrical
> Plumbing
- Arts, Audio/Visual Technology & Communications**
> Fashion, Apparel & Textiles
Broadcasting
> Audio/Visual Production Professional
> Broadcasting Professional
Graphic Design & Communication
> Commercial Art
> Commercial Photography
> Digital Media
> Graphics Printing
- Business, Finance & Marketing**
> Accounting & Financial Operations
> Customer Service & Management
> Entrepreneurship
> Office/Administrative Support
> Marketing & Sales
- Education & Training**
> Pre-K/Early Childhood Education
> K-12 Teaching as a Profession
- Engineering & Technology**
> Aerospace Engineering
> CAD Mechanical Design
> Electrical Engineering
> Manufacturing Engineering
> Materials Science
> Mechanical Engineering
> Robotics
- Health Science**
> Emergency Medical Services
> Nursing Services
Clinical Laboratory Science
> Biotechnology
> Medical Forensics
Therapeutic Clinical Services
> Dental Assistant
> Exercise Science/Sports Medicine
> Medical Assistant
> Pharmacy Technician
- Hospitality & Tourism**
> Culinary Arts
> Hospitality & Tourism
- Human Services**
> Community, Family & Social Services
Personal Services
> Cosmetology/Barbering
> Esthetician/Nail Technician
- Information Technology**
> Cybersecurity
> Information Technology Systems
> Programming & Software Development
> Web Development
- Law, Public Safety, Corrections & Security**
Public Safety & Law Enforcement
> Protective Services
- Manufacturing**
> Aerospace Manufacturing
> Medical Innovations
> Welding
Advanced Manufacturing
> Cabinetmaking/Millwork
> Machine Tool
- Transportation, Distribution & Logistics**
> Aviation
> Aviation Maintenance Technology
> Diesel
Automotive
> Collision Repair
> Service Technician



SALT LAKE COMMUNITY COLLEGE

STADLER



Talent Ready Apprenticeship Connection (TRAC)

Complete Years Two
and Three of
Training at Salt Lake
Community College

Earn an Associate's
Degree



QUESTIONS AND ANSWERS

STADLER



Earning While Learning

With the Stadler apprenticeship program you will attain a degree comparable to an applied associates degree, all while getting hands-on manufacturing experience throughout your three year journey - the best part: you earn money along the way.



Stackable: You can use TRAC as base for a successful transition into college



The program is recognized with a statewide certificate



Full support: you won't get thrown in the deep end. You will have our full support every step of the way.

FIRST YEAR

Overall pay: \$700 per month
 Hourly breakdown: \$10 per hour
 Weekly work hours: Block schedule every other week

Apprentices complete their senior year of high school on a block schedule, where they are enrolled in theoretical lectures and work at Stadler on opposite days. Working days consist of both training and specific tasks. Students have a choice between the Automatic Technician (electrical) track and the Production Technician (mechanical) track.

SECOND YEAR

Overall pay: \$1350 per month
 Hourly breakdown: \$11.5 per hour
 Weekly work hours: 3.5 days

During year two, apprentices will be attending courses at Salt Lake Community College. At Stadler, apprentices will start supplementary and focused training and will be integrated into regular production.

THIRD YEAR

Overall pay: \$1700 per month
 Hourly breakdown: \$13 per hour
 Weekly work hours: 4 days

Year three will consist of advanced lectures at Salt Lake Community college as well as advanced practical focus and supplementary training at Stadler. Apprentices will complete final testing and a final project in order to graduate from the program.

NEXT STEPS

- See your CTE counselor today for more information and application requirements
- Learn more about our company: www.stadlerrail.com
- Tour our production facility



Mechanic Apprenticeship Program

METRO
METRO REGIONAL TRANSIT AUTHORITY



METRO RTA JOURNEYMAN MECHANIC APPRENTICESHIP PROGRAM

Effective August 1, 2007 all new mechanics will be subject to the Apprenticeship/Journeyman Program ("Program"). The employer may employ one (1) apprentice for every five (5) journeymen. A Hiring/Peer Review Committee ("Committee") consisting of three (3) Management level representatives and two (2) Union representatives will review the performance and progress of each apprentice in the Program. Experienced mechanics accepted into the Program or an apprentice who demonstrates superior skills and/or abilities may be advanced through the steps of the Program at an accelerated rate based upon the recommendation of the Committee and the approval of the employer.

An apprentice shall be paid as per the rates set forth in section 1 (c) under the apprentice classification. Increases shall be provided as outlined in the program, however the program shall not restrict the employer from progressing an apprentice sooner or advancing him/her to a higher progression/hourly wage level.

An apprentice shall be assigned at all times to work with a journeyman and/or trainer. He/she shall be rotated throughout the shop of the employer, working with different journeymen to acquire sufficient skills and be assigned different types of repair work so that within the 24 month period the successful apprentice shall become a journeyman. A journeyman mechanic is qualified to do all phases of bus repair, including but not limited to, major rebuilds, general and minor repairs, electrical repairs, preventative maintenance (bus inspections), and wheelchair lift repairs within an acceptable timeframe. A journeyman mechanic requires limited supervision. A journeyman mechanic is required to have a class A or B CDL with air brake and passenger endorsements and be ASE-certified in at least four areas as defined in the IAM contract. If at any time during the 24 month period, the employer in its sole discretion is not satisfied that an apprentice will develop into a fully-qualified journeyman mechanic, the apprentice may be discharged at will. Such discharged apprentice shall have no right to the grievance or arbitration procedures outlined in Article VIII in the IAM contract.

Apprentices shall attend the appropriate training institutions as requested by the employer. Such training costs shall be borne by the employer.

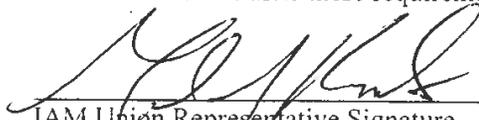
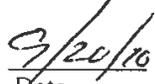
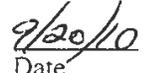
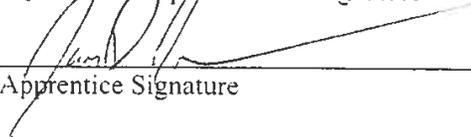
In case of a reduction in the workforce or layoff, apprentice(s) will be the first position(s) in the maintenance department to be laid off – last in, first out. Once an apprentice has successfully completed his/her 24 month period as an apprentice he/she shall become a journeyman and his/her seniority as a journeyman shall revert back to the date of hire as an apprentice.

An apprentice on probation will be eligible for company benefits after 60 days. Union membership will be available after 60 days. The apprentice will be eligible for all union benefits except for sign-ups and the union may not grieve a discharge of the apprentice.

A journeyman working with the apprentice will receive 25 cents per hour differential for performing this additional duty.

There shall be a wage progression for mechanics hired after August 1, 2007 as follows:

- Hire – Journeyman top rate of pay less six dollars (\$6.00) per hour
 - 6 months – Journeyman top rate of pay less four dollars (\$4.00) per hour
 - 12 months – Journeyman top rate of pay less three dollars (\$3.00) per hour
 - 18 months – Journeyman top rate of pay less two dollars (\$2.00) per hour
 - 24 months – Journeyman top rate of pay less one dollar (\$1.00) per hour, and will be classified as a journeyman mechanic
1. Twelve months after the completion of the apprentice program, progression to the journeyman’s top wage rate requires the following:
 - a. Four (4) ASE certifications
 - b. Class A CDL with air brake and passenger endorsement (as long as Metro retains tow truck); or Class B CDL with brake and passenger endorsement.
 - c. Three (3) quarters of perfect attendance in a twelve (12) month period
 2. A mechanic that does not meet these requirements shall not progress beyond \$1.00 less than top rate.
 3. If a mechanic does not qualify for top rate under item (1) above, he/she must wait six months after these requirements have been met to increase to top rate.

 _____ IAM Union Representative Signature	 _____ Date
 _____ Metro BTA Representative Signature	 _____ Date
 _____ Apprentice Signature	 _____ Date

METRO BUS APPRENTICE

I. Orientation

1. Introduction: 80 hrs.

1. All pre-post hiring/training classes done by HR
2. MSDS and Right to Know laws: handling, storage and disposal of Hazardous substances; OSHA and EPA regulations, standards and rules
3. Overview of work processes and related instruction
4. Familiarization with apprenticeship rules
5. Tour of shop
6. Knowledge of importance of safety procedures
7. Familiarization with shop policy manual (if applicable)

2. Service: 80 hrs.

1. Operating various types of coaches: tow motor training, operating driver's radio
2. Raising and moving vehicle parts using jacks and hoists
3. Oiling engines and transmissions
4. Checking tire air pressure, antifreeze, windshield washer fluid
5. Safety operating auxiliary equipment, including wash rack
6. Making and understanding markups
7. Elementary troubleshooting of coach malfunctions

3. Shop Practice: 80 hrs.

1. Familiarization with safety practices
2. Familiarization with terminology
3. Using maintenance and parts manuals, updates and computer software
4. Using fasteners
5. Using measuring instruments
6. Using tools; hand, pneumatic, special
7. Using machine tools, including lathe, grinding machine
8. Tour of storeroom (if applicable)

4. Inspection and Lubrication: 160 hrs.

1. Performing complete inspection of bus
2. Familiarization with various oils and greases, and their uses
3. Changing motor, transmission, differential, fuel oils and filters
4. Lubricating steering assemblies, connections and universal joints
5. Checking batteries, tires, lights

2. Welding and Cutting: 80 hrs.

1. Using protective clothing and devices
2. Safety practices
3. Familiarization with various metals
4. Oxy-acetylene: minor cutting, brazing, welding
5. Electric (Arc): minor cutting and welding
6. Familiarization with MIG: minor welding

3. Brakes: 400 hrs.

1. Familiarization with brake system construction and operation
Familiarization with names and functions of component parts
 1. S-Cam system (if available)
 2. Wedge system (if available)
 3. Disk system (if available)
 4. Anti-lock braking system (if available)
2. Inspecting, adjusting and performing preventative and routine maintenance
3. Discussing nature and extent of malfunctions or damage with shop supervisor (if applicable)
4. Diagnosing problem areas

5. Measuring, turning or replacing drums; relining shoes
 6. Adjusting, repairing, rebuilding, replacing parking and service brake mechanisms (slack adjuster, camshaft, air chamber)
 7. Checking and repairing all hoses; checking valves and connections
 8. Removing, repairing/replacing, testing brake valves
 9. Testing air compressor and air governor and replace.
 10. Removing, inspecting, repairing hubs as necessary (including wheel bearing races and studs)
4. Suspension and Chassis: 240 hrs.
1. Familiarization with names and functions of component parts
 2. Familiarization with system operation, maintenance and adjustments
 3. Discussing nature and extent of malfunction or damage with shop Supervisor (if applicable)
 4. Overhauling system, including radius rods and mounts, bushings, stabilizer bars, bellows, air filters and driers, leveling valves, shock absorbers, front and rear bumpers, frame, wheel stops, kneeling systems, trunnions, coil and leaf springs
 5. Properly torquing suspension and chassis fasteners
5. Axles and Steering Gears: 240 hrs.
1. Familiarization with names and functions of component parts
 2. Inspecting, maintaining, troubleshooting tires and wheels
 3. Installing front/rear hubs and bearings. Adjusting bearings and checking oil seals on hubs and front axles & rear axles
 4. Removal & replacement of differential assembly
 5. Inspecting, performing preventative maintenance, troubleshooting, and repairing steering system including steering column, steering transfer box, steering gear box, drag link, tie rod, king pins, steering linkage, spindles, steering hydraulic systems. Overhauling boxes and steering linkage
 6. Aligning front end
 7. Removing, inspecting and overhauling steering universal joints
6. Electrical System (12-Volt and 24-Volt): 400 hrs.
1. Familiarization with names and functions of component parts
 2. Using testing meters, load testers and diagnostic equipment
 3. Reading schematics
 4. Cleaning, maintaining, testing and replacing batteries
 5. Maintaining, testing, troubleshooting, repairing starting system
 6. Installing, adjusting, maintaining, testing generator, alternator and regulator
 7. Installing, adjusting, troubleshooting and rewiring lighting systems
 8. Rewiring instrument panel
 9. Installing, troubleshooting and repairing electrical accessories including SIR
 10. Maintaining, testing, troubleshooting, repairing multiplexing System (I/O)
7. Heating and Air-Conditioning 320 hrs.
1. Familiarization with names and functions of component parts
 2. Performing preventative maintenance, inspection, diagnostics and repairs
 3. Operating air pressure, regulator, Grad-U-Stat and EPR valve in connection with heat system water pump (if applicable)
 4. Maintaining, troubleshooting, rebuilding, cleaning and repairing heater core, motors, filters and wabasto heater
 5. Safety practices concerned with using refrigerants in air conditioning system, including Freon recovery
 6. Familiarization with tools, including gauges; nitrogen; Freon 22 and 134A (as applicable)
 7. Maintaining, troubleshooting and repairing air-conditioning system
 8. Removing, maintaining and replacing air-conditioning compressor.

9. Inspecting, adjusting, checking for fault conditions, getting status readings on microprocessors (if available)
10. A/C certification test
8. Engine and Fuel Systems 400 hrs.
 1. Familiarization with names and functions of CNG & Diesel component & parts
 2. Performing preventative maintenance
 3. Disassembling and inspecting; examining parts for defects and excessive wear
 4. Reconditioning and replacing parts such as pistons, rings, bearings, gears, valves and bushings
 5. Inspecting cylinder head and valves, cylinder, piston and crankshaft
 6. Reassembling and installing engine and fuel systems
 7. Tuning-up engine using standard guidelines
 8. Diagnosing and troubleshooting. Discussing nature and extent of malfunction or damage with shop supervisor (if applicable). Using tachometer, and engine analyzer. Using computer to diagnose equipment, if available.
9. Cooling System 160 hrs.
 1. Familiarization with names and functions of component parts
 2. Performing preventative maintenance, including using hydrometer to insure proper mix of elements such as coolant, rust inhibitor, and water. Recycling antifreeze (if applicable)
 3. Tearing down, inspecting, diagnosing, repairing, rebuilding, installing water pump
 4. Inspecting, repairing, replacing fan blades, fan drives, fan belts
 5. Inspecting and replacing radiator and surge tanks
 6. Inspecting, repairing, and replacing controls including thermostats, alarmstat, temperature sending unit, verntherm valve (as available)
10. Drive System, Transmission, 320 hrs.
 1. Familiarization with names and functions of component parts
 2. Familiarization with various types of transmissions
 3. Performing preventative maintenance
 4. Inspecting and adjusting
 5. Diagnosing and troubleshooting
 6. Diagnosing, troubleshooting, disassembling, repairing, rebuilding, assembling valve body
 7. Using pressure gauges to take pressure readings
11. Exhaust System 120 hrs.
 1. Familiarization with names and functions of component parts
 2. Inspecting, diagnosing, replacing manifold and heat controls
 3. Inspecting, diagnosing and replacing muffler, exhaust pipe, trap oxidizer and catalytic convertor
12. Wheel Chair Lift, Ramp 240 hrs.
 1. Familiarization with names and functions of component parts
 2. Selecting and using proper fluids
 3. Cleaning and flushing system
 4. Inspecting, diagnosing, repairing and rebuilding electric/hydraulic/mechanical system
13. Body (Interior and Exterior) 320 hrs.
 1. Inspecting glazing for cracks, fogging, other defect; replacing defective pieces
 2. Repairing driver-area controls
 3. Repairing/replacing windshield wiper motor, control valve, wiper arm, blades
 4. Adjusting and replacing all interior and exterior lights

5. Installing and repairing mirrors
6. Repairing speedometer and tachometer
7. Adjusting/repairing driver's seat
8. Inspecting and repairing passenger seats, passenger assists, flooring, seat tracks, sidewall panels
9. Inspecting and repairing passenger signals
10. Maintaining and repairing farebox and destination signs (if applicable)
11. Ensuring proper door operation, including sensitive edges and interlock system (as available)
12. Inspecting required safety devices such as triangles, fire extinguisher
13. Riveting exterior body
14. Painting

Total Hours: 3640

**BUS MECHANIC
RELATED INSTRUCTION**

Mathematics: Job Requirement

- Arithmetic
- Measurements
- Metric System
- Algebra (including fractions and decimals)

CDL A with air brake/passenger endorsement as long as Metro retains tow truck; or Class B with air brake and passenger endorsement

Written and Oral Communication

Trade Theory and Science

- Machine Shop
- Welding
- Lubrication Systems
- Air Brake Systems (if applicable)
- Air Suspensions (if applicable)
- Power Steering Systems
- Front End Repairs and Alignment
- Electrical Systems
- Automotive Electronics
- Heating and Air Conditioning
- Diesel Engine
- Gasoline Engine (if applicable)

Engine Repair/Overhaul
Tune-up
Cooling Systems
Starting Systems
Automotive Electronic Ignition Systems (if applicable)
Hydraulics
Other related courses as necessary

A minimum of 144 hours of Related Instruction are required for each apprentice for each year.

JOB DESCRIPTION

EMPLOYER: METRO REGIONAL TRANSIT AUTHORITY

JOB TITLE: APPRENTICE MECHANIC

HOURS: AS REQUIRED

NATURE AND SCOPE OF POSITION (PURPOSE):

Functions of this classification shall be to acquire the skills and knowledge and be proficient at the repair and maintenance of METRO's fleet of vehicles within a 24 month period.

JOB RESPONSIBILITIES (ESSENTIAL FUNCTIONS):

Candidate will be required to complete a 24 month apprentice program for the repair and maintenance of vehicle systems such as: Suspension, brakes, exhaust, fuel, drive line, steering, heating, lighting, electrical distribution, replacement of batteries and charging system units, cooling, vehicle signage, moving of vehicles as directed and necessary to perform job assignments, assist journey person as required, prepare written reports and any other duties relative to maintenance to vehicles. Also, any repairs or maintenance of building and grounds as directed.

Physical demands of the job include the following:

- Standing - Constantly
- Walking - Constantly
- Sitting - Occasionally
- Lifting- Constantly (approx. 75 lbs.)
- Carrying- Constantly (approx. 75 lbs.)
- Pushing - Frequently (approx. 200 lbs.)
- Pulling- Frequently (approx. 200 lbs.)
- Climbing - Frequently (ladder, bus stairs, etc.)
- Kneeling - Frequently
- Reaching - Frequently

Work environment:

60% indoors, with exposure to diesel fumes, odors, dust, mists, smoke, gases, poor ventilation, noisy vibration, and hazards associated with the cleaning and repair of vehicles.

40% outdoors, with exposure to diesel fumes, odors, dust, mists, smoke, gases, poor ventilation, noisy vibration, and hazards associated with the cleaning and repair of vehicles.

The above statements reflect the general details considered necessary to describe the principal functions of the job necessary for its classification and shall not be interpreted as a detailed description of all the work requirements that may be inherent in the job. Other duties shall be assigned from time to time. There is a 24 month probationary period. Job performance will be evaluated periodically for continued participation in the apprenticeship program.

METRO Regional Transit Authority (Akron, Ohio)

Apprentice Mechanic
Page 2

LINE OF AUTHORITY:

Directly responsible to the Maintenance Foreman and Maintenance trainer.

EDUCATION (QUALIFICATIONS):

High school diploma or G.E.D. Must be able to speak clearly, write legibly, and hear during ordinary conversation, see near and far, and accurately judge depth perception. Must have written temporary or valid Ohio Commercial Driver's License Class B with passenger endorsement within twelve months of hire date.

EXPERIENCE:

One year relevant technical training or trade school, or two years experience in vehicle repair.

WAGE: 24.08

AN EQUAL OPPORTUNITY EMPLOYER

TO BE CONSIDERED FOR THIS POSITION, PLEASE SUBMIT AN APPLICATION TO THE HUMAN RESOURCES DEPARTMENT NO LATER THAN September 15, 2017

**Mail: METRO RTA
Attn: HR Recruiting
416 Kenmore Blvd.
Akron, OH 44301**

**Fax: 216-937-0190
Email: HRrecruits@akronmetro.org**

**POSTED: September 1, 2017
This posting will be removed on September 15, 2017**





THE MTA NYC TRANSIT APPRENTICE PROGRAM

WELCOME

OUR APPRENTICE PROGRAM

Transit Electrical Apprenticeship

- Signals
- Elevators and Escalators
- Car Equipment
- Hydraulics
- HVAC
- Bus Maintenance/Facilities
(36 month program)

Transit Mechanical Apprenticeship

- Bus Maintenance
- Bus Facilities
(18 month program)

Pay Rate - \$22.6928

HOW MANY SLOTS ARE AVAILABLE?

Approximately **50 Apprentices slots**
are available this year.

TRANSIT ELECTRICAL HELPER



Notice of Examination

Transit Electrical Helper

FREQUENTLY ASKED QUESTIONS

How has the experience been for you?

- It's a great experience
- You get to meet a lot of people
- You get to learn a lot
- You can go to college & work (Most apprentices go to City Tech)

What would you tell your younger self on your first day based upon what you know now?

- To save your money, don't spend too much.
- Don't loan money to family/friends
- Don't tell people how much you make
- Leave the High School stuff in high school

What do you dislike about the job?

- Getting up early
- Change in tours
- Long commutes
- Multi-Generational Challenges
- Working OT During Emergencies

What do you like most about the job?

- The money/pay
- The work is different every day because of troubleshooting
- The long term benefits of working at Transit

FREQUENTLY ASKED QUESTIONS

What has been your most interesting troubleshooting job?

- Complete Escalator Repair (Removing the Chain from the Escalator)
- A Fan Plant repair (Completely dismantling a Fan)
- A Signal Failure Job (Finding the Failed Signal and Repairing it under traffic while letting trains bypass the work location)

What has been your biggest regret?

- Not speaking up early on
- Not starting college as soon as possible
- Not starting to save earlier (Join the 401k/

Where do you see yourself in the future?

- Elevator/Escalator Inspector
- Maintainer
- Mechanical Engineer
- Computer Programmer/App Developer

OPERATIONS TRAINING

Julio Vidal (Department of Subways)

Eric Monroe (Department of Buses)

Emergency Instructions

Fire	Medical	Police	Evacuation
			
<ul style="list-style-type: none"> • Notify train crew immediately • Evacuate from train through nearest door • Remain inside tracks are electrified • Follow instructions from train crew and emergency workers • Do not pull the emergency cord 	<ul style="list-style-type: none"> • Notify a crew member if a passenger is in distress • If you are qualified to assist, inform the train crew • Do not pull the emergency cord 	<ul style="list-style-type: none"> • Alert the train crew to any suspect or suspicious behavior • Train crews can assist on calls • Do not pull the emergency cord 	<ul style="list-style-type: none"> • Do not exit train unless directed to do so by train crew or emergency workers • Follow instructions from train crew and emergency workers

Always contact a train crew member and listen for announcements.



HOW THE PROCESS WORKS

Start Recruitment @ CTE High Schools (Now)

- Documents Due – April 4th
- Original Documents Review (Only candidates under consideration)
- Commitment by end of May
- Meet Union Leaders - July
- Drug Testing - July
- Appointment & Start (August/September)
- Induction Training & Apprenticeship Officially Begins



You must submit the following documents:

- **OFFICIAL TRANSCRIPT** (PERMANENT RECORD, WITH ALL CTE COURSES GROUPED TOGETHER)
- **LETTER OF RECOMMENDATION** (FROM SHOP TEACHER, WBL COORDINATOR OR PRINCIPAL ON SCHOOL LETTERHEAD)
- **OFFICIAL ATTENDANCE RECORD** (PRINTED FROM DOE SYSTEM. THIS DOCUMENT CAN BE PRINTED BY SCHOOL ADMINISTRATOR)

Documents will be accepted in person (between 3pm and 5pm) on
April 2nd, April 3rd and April 4th

Please see:

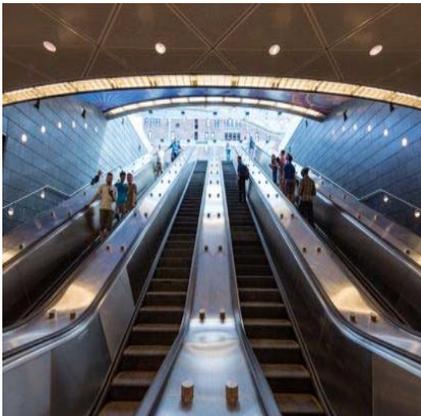
Antonia Brown, Director of Educational Resources
180 Livingston Street, 6th Floor - Room 6047
Brooklyn, NY 11201
email: antonia.brown@nycct.com
phone: 347-643-8331

PROGRAM BENEFITS

Participants in the Apprenticeship Program receive the following:

- Competitive salary of \$46,049 per year*
- On the Job training
- Free transportation pass
- Paid vacation, holidays, and sick days
- Qualification for certain Promotional Civil Service Exams at the end of the program
- Comprehensive benefits package (includes medical, dental, and vision insurance and flexible spending accounts)
- Pension plan
- Deferred Compensation plan
- And so much more...

*Subject to periodic increases.



NYC TRANSIT LABOR-MANAGEMENT APPRENTICESHIP PROGRAM



For more information about this and other exciting opportunities at MTA New York City Transit, please contact:

Educational Resources

Email: Studentprograms@nyct.com

WHAT IS THE LABOR-MANAGEMENT APPRENTICESHIP PROGRAM?

The Labor-Management Apprenticeship Program is an 18 to 36-month program created to give highly motivated trade and technical high school students a chance to demonstrate their abilities, acquire valuable work experience and start building a career.

PROGRAM QUALIFICATIONS

To apply, students must meet the following qualifications:

- Graduation from an approved trade/technical high school with specialty in:
 - ⇒ Automotive ⇒ Ironwork
 - ⇒ Carpentry ⇒ Masonry
 - ⇒ Electrical ⇒ Mechanical
 - ⇒ Electromechanical ⇒ Painting
 - ⇒ Electronic technology ⇒ Sheet metal work
- Have a school record showing mastery of the chosen specialty area with a good academic and attendance record.
- Be a US Citizen, possess a valid Permanent Resident Card, or valid Employment Authorization

SELECTION PROCESS



(Subject to change)

1. All students interested in being considered for the Apprenticeship Program must submit the following documents by the deadline (above/below):

- Recent transcript demonstrating at least an overall 75% average
- Completed teacher recommendation form
- Attendance record showing less than 5 unexcused days late/absent from school

2. Based on an evaluation of the application, transcript, teacher recommendation, and attendance record, some candidates will be selected to attend a preliminary information session.

Candidates should bring the following information to the preliminary information session:

- Original US Passport, Permanent Resident Card, or valid Employment Authorization
- Original Social Security Card
- Birth Certificate
- High School Diploma
- Photo ID

3. After the preliminary information session, the final candidates will notified of acceptance via phone and email.

PLACEMENT

Apprentices are placed at a variety of divisions within the Department of Subways, Department of Buses and MTA Bus such as:

- Automotive Maintenance
- Car Equipment
- Elevator & Escalator
- Facility Maintenance
- Hydraulics
- Lighting
- Signals

RECRUITMENT

Some of the schools where we have recruited Apprentices from include but are not limited to:

- Alfred E. Smith Career and Technical Education High School
- Automotive High School
- Bronx Design and Construction Academy
- George Westinghouse Career and Technical Education High School
- High School of Construction and Trades
- Queens Vocational High School
- Thomas Edison Career and Technical Education High School
- Transit Tech Career and Technical Education High School
- William E. Grady Career and Technical Education High School



IMPORTANT INFORMATION PERTAINING TO THE QUALIFICATION REQUIREMENTS FOR

Transit Electrical Helper, Exam No. 9624

On the date of the multiple-choice test, you will be required to document that you met the education requirements by June 30, 2019, or the experience requirements by the close of the filing period for this examination (April 23, 2019). You may also be required to complete additional forms regarding the education and experience requirements at the time of appointment. You will be given the multiple-choice test before we verify your qualifications. You are responsible for determining whether you meet the qualification requirements for this examination, which are described in the HOW TO QUALIFY section of the following Notice of Examination, prior to submitting your application. If you are marked "Not Qualified," your application fee will **not** be refunded and you will **not** receive a score.



Notice of Examination

Transit Electrical Helper, Exam No. 9624

Application Deadline:

April 23, 2019

Type of Test:

Multiple-Choice

Application Fee:

\$61.00

Test Date: (subject to change)

Saturday, August 3, 2019 or
Sunday, August 4, 2019

JOB DESCRIPTION

Pursuant to Section 61(1) of the New York Civil Service Law, the eligible list resulting from this examination may also be used to fill vacancies in the title of Signal Maintainer Trainee. Eligible candidates accepting or declining appointment either as a Transit Electrical Helper or as a Signal Maintainer Trainee will have their names removed from the eligible list.

Transit Electrical Helpers, under direct supervision, assist maintainers and supervisors in the installation, maintenance, testing and repair of electrical, electro-mechanical and electronic equipment in various MTA New York City Transit departments; Transit Electrical Helpers operate motor vehicles to and from work assignments; keep records and write reports; and perform related work. Under direct supervision, Transit Electrical Helpers perform the duties indicated below in the following areas:

1. In Signal Maintenance, they assist Signal Maintainers and Maintenance Supervisors (Signals), with their work on railroad signal apparatuses, including signals, automatic train stops, electronic control systems, track circuit equipment, compressors, interlocking machines, and related apparatuses; and work with some materials containing asbestos.
2. In Lighting Maintenance, they assist Light Maintainers and Maintenance Supervisors (Lighting) in the maintenance, installation, inspection, testing, alteration and repair of lighting and related equipment.
3. In Electronic Equipment Maintenance, they assist Electronic Equipment Maintainers and Maintenance Supervisors (Electronic Equipment) with their work on electronic communication equipment, closed circuit televisions, control systems and equipment.

(Continued)

READ CAREFULLY AND SAVE FOR FUTURE REFERENCE

Filing Opened: April 3, 2019

JOB DESCRIPTION (Continued)

4. In Elevator and Escalator Maintenance, they assist Elevator and Escalator Maintainers and Maintenance Supervisors (Elevator and Escalators) with their work on elevators, escalators, electrically operated drawbridges and all related electrical and mechanical equipment.
5. In Ventilation and Drainage Maintenance, they assist Ventilation and Drainage Maintainers and Maintenance Supervisors (Ventilation and Drainage) in the maintenance and repair of ventilation and drainage systems, including fans, blowers, compressors, pumps, sewage ejectors and related equipment.
6. In Power Distribution (Third Rail) Maintenance, they assist Power Distribution Maintainers and Maintenance Supervisors (Power Distribution) with their work on contract rail power distribution systems, including positive and negative cables, rail connections, circuit breakers and related equipment.
7. In Electrical Power Maintenance, they assist Power Maintainers – Group B, Power Cable Maintainers and Maintenance Supervisors (Electrical Power) in the maintenance and repair of mercury arc and silicon rectifiers, rotary converters, high tension switch gear, automatic relay panels and circuits, power, telephone and fiber optics cables, and auxiliary equipment and accessories; and work with materials containing asbestos, mercury and lead.
8. In Telephone Maintenance, they assist Telephone Maintainers and Maintenance Supervisors (Telephone) with their work on telephones, intercom systems, emergency alarms, fire alarms, cables, electronic and other communications systems and materials containing asbestos.

Signal Maintainer Trainees, under close supervision, receive a course of training both in the classroom and on the job, leading to qualification and competency as a Signal Maintainer in the installation, maintenance and repair of electrical and electronic equipment in the Maintenance of Way Division of the Department of Subways of MTA New York City Transit.

Some of the environmental conditions experienced and physical activities performed by Transit Electrical Helpers and Signal Maintainer Trainees are: climbing and descending ladders and stair ways; walking on and between catwalks and roadbeds; hearing audible signals such as alarms bells, train whistles and horns; working in confined areas; lifting and carrying heavy material and equipment; observing colored light signals in tunnels, on elevated tracks, and on open-cut road beds; differentiating color-coded wires, and working outdoors in all weather conditions.

Transit Electrical Helpers in Electrical Power Maintenance may work in the presence of infectious and biological waste.

Special Working Conditions: Transit Electrical Helpers and Signal Maintainer Trainees may be required to work various shifts including nights, Saturdays, Sundays and holidays.

(This brief description does not include all of the duties of this position.)

SALARY AND BENEFITS

1. The current minimum salary for Transit Electrical Helpers working in Electrical Power Maintenance is \$21.95 per hour for a 40-hour week increasing to \$31.36 in the sixth year of service.
2. The current minimum salary for Transit Electrical Helpers working in other subdivisions is \$21.46 per hour for a 40-hour week increasing to \$30.66 in the sixth year of service.

(Continued)

SALARY AND BENEFITS (Continued)

3. The current minimum salary for Signal Maintainer Trainee is \$22.68 per hour for a 40-hour week increasing to \$32.41 per hour in the sixth year of service. Upon advancement to the title of Signal Maintainer, the salary is expected to increase to \$37.85 per hour for a 40-hour week (based on the current minimum salary).

These rates are subject to change. The benefits of this position include, but are not limited to, night and weekend salary differentials, paid holidays, vacation and sick leave, a comprehensive medical plan and a pension plan.

HOW TO QUALIFY

Experience Requirements must be met **by the last day of the Application Period**. **Education Requirements** must be met by **June 30, 2019**.

1. Two years of full-time satisfactory experience as a helper in the electrical, electronic, or electro-mechanical fields in the maintenance, repair, testing, construction or installation of electrical equipment; or
2. Graduation from a trade school or technical school, with a major course of study in electrical, electronic, or electro-mechanical technology, or a closely related field, totaling 600 hours; or
3. Graduation from a vocational high school with a major course of study in electrical, electronic, or electro-mechanical technology, or a closely related field; or
4. An Associate degree or higher degree in electrical, electronic, or electro-mechanical technology or a closely related field from an accredited college or university.

The vocational high school, technical school, or trade school must be approved by a State's Department of Education or a recognized accrediting organization. The college or university must be accredited by regional, national, professional or specialized agencies recognized as accrediting bodies by the U.S. Secretary of Education, and by the Council of Higher Education Accreditation (CHEA).

Foreign Education Fact Sheet (required only if you need credit for your foreign education for this examination): If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. The services that are approved to make this evaluation, as well as instructions on how to submit this evaluation are listed in the *Foreign Education Fact Sheet* included with your application packet. When you contact the evaluation service, ask for a "document-by-document" (general) evaluation of your foreign education.

On the date of the multiple-choice test, you will be required to document that you met the education requirements by June 30, 2019, or the experience requirements by the close of the filing period for this examination (April 23, 2019). You may also be required to complete additional forms regarding the education and experience requirements at the time of appointment. You will be given the multiple-choice test before we verify your qualifications. You are responsible for determining whether you meet the qualification requirements for this examination, prior to submitting your application. If you are marked "Not Qualified," your application fee will **not** be refunded and you will **not** receive a score.

REQUIREMENTS TO BE APPOINTED

Driver License Requirement: At the time of appointment, you must have a motor vehicle driver's license valid in the State of New York with no disqualifying restrictions that would preclude the performance of the duties of this title. If you have serious moving violations, a license suspension or an accident record, you may be disqualified. This license must be maintained for the duration of your employment in the title.

Drug Screening Requirement: You must pass a drug screening in order to be appointed, and if appointed, you will be subject to random drug and alcohol tests for the duration of your employment. Additionally, if you have tested positive on a drug or alcohol test or had a refusal to test during pre-employment or while employed by a Federal DOT-regulated employer during the applicable period, you must have completed the Substance Abuse Professional (SAP) evaluation, referral and education/treatment process required by federal law in order to be appointed to this safety-sensitive position.

Medical Requirement: Medical guidelines have been established for the positions of Transit Electrical Helper and Signal Maintainer Trainee. You may be examined to determine whether you can perform the essential functions of the position. Where appropriate, a reasonable accommodation will be provided for a person with a disability to enable him or her to perform the essential functions of the job.

Residency: New York City residency is not required for this position.

English Requirement: You must be able to understand and be understood in English.

Proof of Identity: Under the Immigration and Reform Control Act of 1986, you must be able to prove your identity and your right to obtain employment in the United States prior to employment with MTA New York City Transit.

Safety Proficiency Assessment: If you pass the multiple-choice test and meet the education and experience requirements, you will be scheduled to take the qualifying safety proficiency assessment as vacancies occur. However, based on the projected number of vacancies, it is possible that not all candidates who pass the multiple-choice test and meet the education and experience requirements will be scheduled for the qualifying safety proficiency assessment. A score of 70% is required to pass the qualifying safety proficiency assessment. In the qualifying safety proficiency assessment, you will be required to demonstrate the following abilities:

Oral Comprehension – The ability to understand spoken English words and sentences.

Oral Expression – The ability to use English words or sentences in speaking so others will understand.

HOW TO OBTAIN AN APPLICATION

During the application period, you may obtain an *Application* for this examination online at <http://mta.info/nyct/hr/appexam.htm> or in person at the MTA Exam Information Center as indicated below.

MTA Exam Information Center: Open Monday through Friday, from 9 AM to 3 PM, in the lobby at 180 Livingston Street, Brooklyn, New York. Directions: take the A, C, F or R trains to the Jay Street-Metro Tech Station, or the 2, 3, or the G train to the Hoyt Street Station.

HOW TO SUBMIT AN APPLICATION AND PAY THE APPLICATION FEE

If you believe you meet the requirements in the “How to Qualify” section, submit an application online unless you are requesting a Fee Waiver. Applicants who wish to request a Fee Waiver should refer to the “How to Submit an Application When Requesting a Fee Waiver” section below. *Applications* will **not** be accepted in person.

Online Applications:

1. Apply using <http://mta.info/nyct/hr/appexam.htm> by the last day of the application period.
2. Log into your existing account or create a new account online to apply.
3. Follow the steps to submitting an application.
4. A confirmation number will appear on the same page after submitting your Application.
5. Below the confirmation number, a Pay Examination Fee button will appear for you to click to open the payment page.
6. A major credit card or a bank card associated with a bank account must be used when paying the application fee.
7. You will be sent a confirmation email after you submit payment for the application fee.

Save your confirmation numbers for future reference and proof of filing an *Application*.

Computers with internet access are available on a limited basis at branches of the New York Public Library, the Brooklyn Library and the Queens Library to patrons with a valid library card.

Application Fee: This fee is generally not refundable. Under special circumstances, you may be entitled to a refund. You should refer to the Department of Citywide Administrative Services (“DCAS”) General Exam Regulations to determine if you are entitled to a refund prior to requesting a refund. You can refer to the bottom of the last page of the Notice of Examination for instructions on how to obtain a copy of the DCAS General Exam Regulations.

HOW TO SUBMIT AN APPLICATION WHEN REQUESTING A FEE WAIVER

Applicants who wish to request a fee waiver must obtain an *Application* in person at the MTA Exam Information Center as indicated above and must submit the *Application* and required forms by mail to the address in the “Correspondence” section below **by the last day of the application period**.

MTA New York City Transit will not accept *Applications* in person. Additional information on how to request an application fee waiver is available with the *Application*.

ADMISSION LETTER

An *Admission Letter* will be mailed to you about 10 days before the first date of the multiple-choice test. If you do not receive an *Admission Letter* at least 4 days before this date, you may obtain a duplicate letter at the MTA Exam Information Center (as indicated above). A paper copy of the *Admission Letter* is your ticket for admission to the test.

Applicants **must** keep their mailing address **up to date**. Please refer to the Correspondence section below for instructions on how to update your address and other contact information.

THE TEST

You will be given a competitive multiple choice test. A score of at least 70% is required to pass this test. Your score on this test will determine your place on the eligible list.

(Continued)

THE TEST (Continued)

Veterans' or Disabled Veterans' Credit will be granted only to eligible passing candidates who request that they be applied. Veterans' or Disabled Veterans' Credit should be requested at the time of application, but **must** be requested before the date the eligible list is established. Claims for Veterans' or Disabled Veterans' Credit cannot be made once the eligible list is established.

The multiple-choice test may include questions that require the use of any of the following abilities:

Written Comprehension – The ability to understand written sentences or paragraphs. Example: Understanding written bulletins released by MTA New York City Transit.

Written Expression – The ability to use English words or sentences in writing so others will understand. Example: Writing incident reports regarding unusual occurrences.

Deductive Reasoning – The ability to apply general rules to specific problems to come up with logical answers. It involves deciding if an answer makes sense. Example: Applying MTA New York City Transit rules and regulations to situations to determine the appropriate action that must be taken.

Information Ordering – The ability to follow correctly a rule or set of rules to arrange things or actions in a certain order. The rule or sets of rules used must be given. The things or actions to be put in order can include numbers, letters, words, pictures, procedures, sentences, and mathematical or logical operations. Example: Following a step-by-step procedure to connect a cable to the third rail for power.

Number Facility – The ability involving the degree to which adding, subtracting, multiplying, and dividing can be done quickly and correctly. Example: Performing mathematical calculations using track markers to determine the current work location on the track.

TEST ADMINISTRATION GUIDELINES

Warning: You are not permitted to enter the test site with cellular phones, smart watches, beepers, pagers, cameras, portable media players, or other electronic devices. Calculators are permitted; however they must be hand-held, battery or solar-powered, numeric only. Calculators with functions **other than** addition, subtraction, multiplication and division **are prohibited**. Electronic devices with an alphabetic keyboard, word processing, or data recording capabilities, such as planners, organizers, etc., are prohibited. If you use any of these devices in the building at any time before, during, or after the test, you may **not** receive your test results, your test score may be nullified, and your application fee will **not** be refunded.

You may not have any other person, including children, present with you while you are being processed for or taking the test, and no one may wait for you inside of the test site while you are taking the test.

Required Identification: You are required to bring one (1) form of valid (non-expired) signature and photo bearing identification to the test site. The name that was used to apply for the exam must match the first and last name on the photo ID. A list of acceptable identification documents is provided below. **If you do not have an acceptable ID, you may be denied testing.** Acceptable forms of identification (bring one) are as follows: State issued driver's license, State issued identification card, US Government issued Passport, US Government issued Military Identification Card, US Government issued Alien Registration Card, Employer Identification Card with photo, IDNYC, or Student Identification Card with photo.

(Continued)

TEST ADMINISTRATION GUIDELINES (Continued)

Leaving: You must leave the test site once you finish the test. If you leave the test site after being fingerprinted but before finishing the test, you will not be permitted to re-enter. If you disregard this instruction and re-enter the test site, you may not receive your test results, your test score may be nullified, and your application fee will not be refunded.

THE TEST RESULTS

If you pass the multiple-choice test and meet the education and experience requirements in the "How to Qualify" section above, your name will be placed in final score order on an eligible list and you will be given a list number. You will be notified by mail of your test results. If you meet all requirements and conditions, you will be considered for appointment when your name is reached on the eligible list.

ADDITIONAL INFORMATION

Probationary Period: The probationary period for **Transit Electrical Helper** is one year.

Signal Maintainer Trainee Appointment Conditions: Signal Maintainer Trainee is a trainee class of positions subject to Rule 5.8.1 of Personnel Rules and Regulations of the City of New York, with a probationary period of 12 months; however, the Trainee service and corresponding probationary period may be extended to a maximum of 18 months. Upon satisfactory completion of the Trainee service and corresponding probationary period, permanent employees in this class of positions will advance, without further examination, to the title of Signal Maintainer.

Selective Certification for Education, Special Experience and licensure: If you have the education, experience or license listed below, you may be considered for appointment to positions requiring this education, experience or licensure through a process called Selective Certification. If you qualify for Selective Certification, you may be given preferred consideration for positions requiring this education, experience or licensure. If you have qualifying education, experience or licensure, as listed below, follow the instructions given to you on the date of the multiple-choice test to indicate your interest in such selective certification(s). Your education, experience and/or licensure will be verified by MTA New York City Transit at the time of consideration for appointment.

1. Selective Certification for Education or Experience in the Mass Transportation Industry:
You must meet the conditions in "A" or "B" below.

- A. **Education:** When meeting the education requirements in the "How to Qualify" section above, you must have attended a specialized program that focused on electrical, electronic, or electro-mechanical technology in the mass transportation industry; or
- B. **Experience:** When meeting the experience requirements in the "How to Qualify" section above, you must have worked as a helper performing repairs or maintenance on electrical, electronic or electro-mechanical equipment in the mass transportation industry.

2. Selective Certification for Commercial Driver License (CDL): If you qualify for this Selective Certification, you may be given preferred consideration for such positions in Electrical Power Maintenance. To qualify for this Selective Certification, you will be required to possess at the time of appointment either:

- A. A Class B Commercial Driver License valid in the State of New York with endorsement for hazardous materials and no disqualifying restrictions; or

(Continued)

ADDITIONAL INFORMATION (Continued)

- B. A Motor Vehicle Driver License valid in the State of New York and Learner's Permit for a Class B Commercial Driver License valid in the State of New York.

If you qualify under "B" above, you will be appointed subject to receipt of a Class B Commercial Driver License valid in the State of New York with an endorsement for hazardous materials within six months of appointment. For all appointments through Selective Certification, the Class B Commercial Driver License valid in the State of New York with an endorsement for hazardous materials and no disqualifying restrictions must be maintained for the duration of employment in the Electrical Power Maintenance Group.

If you have serious moving violations, license suspension or an accident record you may be disqualified. Candidates interested in Selective Certification should follow the instructions provided on the date of the multiple-choice test. You may also meet the requirements for Selective Certification and may request to be included on future Selective Certifications at any time during the life of an eligible list. In such an instance, you are required to notify MTA New York City Transit as indicated in the Correspondence Section below.

Commercial Motor Vehicle Driving Experience in the Military or New York National Guard: If you are an active member or former member (discharged in the past year) of the military or New York National Guard and have experience driving a Commercial Motor Vehicle in the military or New York National Guard, you may be eligible for a waiver of the New York State commercial driving skills test through the New York State Department of Motor Vehicles. If you believe that you may be eligible for this waiver, you must apply for the waiver through the New York State Department of Motor Vehicles.

The above Selective Certification requirements may be met at any time during the duration of the list. If you meet this requirement at some future date, please submit a request by mail to the address in the correspondence section below. Please include the examination title and number, your social security number, and the Selective Certification you are requesting in your correspondence.

SPECIAL ARRANGEMENTS

Special Test Accommodations: If you plan to request special testing accommodations due to disability or an alternate test date due to your religious belief, follow the instructions included with your *Application* and mail your request to the address found in the "Correspondence" section below no later than 30 days prior to the first scheduled test date.

Make-Up Test: You may apply for a make-up test if you cannot take the Multiple-Choice test on the scheduled date for any of the following reasons:

1. Compulsory attendance before a public body; or
2. On-the-job injury or illness caused by municipal employment where you are an officer or employee of the City; or
3. Absence from the test within one week after the death of a spouse, domestic partner, parent, sibling, child, or child of a domestic partner where you are an officer or employee of the City; or
4. Absence due to ordered military duty; or
5. A clear error for which MTA New York City Transit is responsible; or
6. A temporary disability, pregnancy-related, or child-birth related condition preventing you from taking the test.

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SPECIAL ARRANGEMENTS (Continued)

To request a make-up test, mail your request with your documentation of special circumstances to the address found in the "Correspondence" section below within 60 days of your scheduled test date or make the request within 90 days after performing ordered military duty.

CORRESPONDENCE

Change of Contact Information: It is critical that you keep your contact information (telephone number, mailing address and/or email address) current with MTA New York City Transit. You may miss important information about your exam(s) or consideration for appointment or promotion, including important information that may require a response by a specified deadline, if we do not have your correct contact information. To update your contact information, you must:

1. Visit us at the MTA Exam Information Center;
2. Email us at examsunit@nyct.com, with the subject named 'Contact Info Update'; or
3. Mail us at the address below, with the words 'Contact Info Update' next to the exam title

Your request must include your full name, exam title(s), exam number(s) and your old and new telephone numbers, mailing and/or email address. **All changes to an MTA employee's contact information must also be made through the MTA Business Service Center (BSC) via the employee portal at <http://www.mymta.info>.**

All other correspondence must be sent to the following address:

Transit Electrical Helper, Exam No. 9624
MTA New York City Transit
180 Livingston Street, Room 4070
Brooklyn, NY 11201

PENALTY FOR MISREPRESENTATION

Any intentional misrepresentation on the *Application* or examination may result in disqualification, even after appointment, and may result in criminal prosecution.

The General Examination Regulations of the Department of Citywide Administrative Services apply to this examination and are part of this Notice of Examination. They are posted and copies are available in the MTA Exam Information Center, 180 Livingston Street (Lobby) Brooklyn NY 11201

TTC Apprenticeship Opportunity

in partnership with the TDSB

“FRONT OF THE LINE”

One Toronto District School Board graduate will have the opportunity to get on board with the TTC as an apprentice **Auto Body and Collision Damage Repairer**.

To qualify you must:

- Complete the requirements for an Ontario Secondary School Diploma by June 30, 2016
- Have a minimum of two automotive/transportation credits.
- Be at least 18 years old by December 31, 2016
- Have a valid class G or G2 driver's license (not a G1) with no demerit points - you must pass the test for a G driver's license within the first six months of employment
- Have a minimum 70% overall average
- Complete an aptitude test with the TTC

An offer of employment will be made to the successful candidate. Employment will be conditional upon:

- Satisfactory results of a driver's abstract check
- Meeting the Ministry of Transportation's requirements to qualify for a Class C license (includes medical examination). The TTC will arrange for and pay the cost of this medical examination.
- Satisfactory results of a police reference check, and drug screening test

The successful candidate will start with the TTC as an Auto Body and Collision Damage Repairer apprentice in the summer of 2016.



HOW TO APPLY

Submit a cover letter, TTC “Front of The Line” application form, resume, and at least three reference letters (two from teachers and one from an employer). Students must also submit a copy of their Credit Counseling Summary to confirm completion of Transportation Technology credits, and minimum 70% overall average. TDSB staff will pre-screen all applicants to short list candidates for referral to the TTC.

Applications must be received by January 29, 2016.

Please send to:

TTC “Front of the Line”
c/o Jane Germenis
140 Borough Dr. 2nd Floor
Route South East

Or email (PDF document only) to

james.corbett@tdsb.on.ca
maria.carvalho@tdsb.on.ca

For more information please call or email: James Corbett (416-394-2080) or Maria Carvalho (416-396-8595) at the Toronto District School Board.



TTC Apprenticeship Opportunity

in partnership with the TDSB

“FRONT OF THE LINE”

Two Toronto District School Board graduates will have the opportunity to get on board with the TTC as **Truck & Coach Technician apprentices.**

To qualify you must:

- Complete the requirements for an Ontario Secondary School Diploma by June 30, 2016
- Have a minimum of two automotive/transportation credits.
- Be at least 18 years old by December 31, 2016
- Have a valid class G or G2 driver's license (not a G1) with no demerit points - you must pass the test for a G driver's license within the first six months of employment
- Have a minimum 70% overall average
- Complete an aptitude test with the TTC

An offer of employment will be made to the two successful candidates.

Employment will be conditional upon:

- Satisfactory results of a driver's abstract check
- Meeting the Ministry of Transportation's requirements to qualify for a Class C license (includes medical examination). The TTC will arrange for and pay the cost of this medical examination.
- Satisfactory results of a police reference check, and drug screening test

The two successful candidates will start with the TTC as Truck & Coach Technician apprentices in the summer of 2016.



HOW TO APPLY

Submit a cover letter, TTC “Front of The Line” application form, resume, and at least three reference letters (two from teachers and one from an employer). Students must also submit a copy of their Credit Counseling Summary to confirm completion of Transportation Technology credits, and minimum 70% overall average. TDSB staff will pre-screen all applicants to short list candidates for referral to the TTC.

Applications must be received by January 29, 2016.

Please send to:

TTC “Front of the Line”
c/o Jane Germetis
140 Borough Dr. 2nd Floor
Route South East

Or email (PDF document only) to

james.corbett@tdsb.on.ca
maria.carvalho@tdsb.on.ca

For more information please call or email:
James Corbett (416-394-2080) or
Maria Carvalho (416-396-8595) at the
Toronto District School Board.



AWARENESS

Massachusetts Department of Transportation (MassDOT) Occupations

Accounting

Accountant
Auditor
Bookkeeper
Budget Analyst/Director
Buyer
Clerk
Federal Aid Coordinator
Financial Operator
Fiscal Officer
Government Grants Manager
Payroll & Revenue Coordinator
Procurement Officer
Statistician

Aeronautics

Aeronautical Inspector
Aeronautical Manager
Aviation Planner

Automotive

Automotive Machinist
Body Shop Foreperson
Car Cleaner
Fueler
Mechanic
Vehicle Maintenance Director

Business

Business Management
Executive
Executive Assistant
Mail Clerk
Procurement Officer
Retail Storekeeper
Secretary
Workforce Planning Coordinator

Construction

Bridge Carpenter
Carpenter
Cement Finisher
Construction Inspector
Mason
Millwright
Painter
Pipe Fitter
Power Equipment Operator
Roofer
Upholsterer

Criminal Justice/Emergency

Safety/Security
Compliance Officer

Control Center Director
Crime and Statistics Analyst
Emergency Manager
Fire Life Safety Officer
Fire Protection Systems
Investigator
Police Officer
Safety Oversight Coordinator
Security Officer
Transportation Safety Analyst
Workplace Safety Specialist

Customer Service

Communication Dispatcher
Customer Service Representative
Hearing Officers
Road Test Examiners

Electrical/Electronics

Electrical Engineering
Electrician
Electronic Technician
Inspector
Line Repairer
Signal Communications Controller
Telecommunication Analyst
Tower Person
Traffic Control Equipment
Utility Analyst
Wire Person

Engineering

Analyst/Engineer
Architect
Bridge Maintenance Foreman
Bridges and Culverts Officer
Cartographer
Civil Engineer
Contract Documents Manager
Design and Construction
Highway Repairer
Inspector
Mechanical Engineer
Safety Compliance Officer
Safety Specialist/Director
Structural Manager
Urban Designer

Environmental

Energy Conservation Monitor
Environmental Analyst
Environmental Engineer
Landscape Architect
Tree Surgeon

Facilities/Maintenance

Facilities Manager
Heating Plant Fireperson
Highway Maintenance Foreman
Highway Repairer
HVAC Refrigeration Mechanic
Janitor
Laborer
Maintenance Supervisor
Parking Services Director
Plumber
Structural Manager
Warehouse Supervisor

Health

Nurse
Occupational Health Officer

Human Resources

Benefits
Employee Relations and Programs
Human Resources Generalist
Performance Reviewer
Personnel Officer
Staffing

Information Technology

Computer Technician
Data Analyst/Processing
Database Manager
Information Officer
Safety Data Analyst
Webmaster
Word Processing Operator

Legal

Civil Rights Investigator
Claim Examiner
Compliance Officer
Contract Documents Manager
Labor Relations Representative
Lawyer
Legislative Liaison
Municipal Affairs Liaison
Paralegal Specialist
Policy Writer and Analyst
Title Review Officer

Marketing

Customer Communications
Event Planner
Graphic Designer
Marketing Director
Photographer

Press Secretary
Public Relations Spokesperson
Sign Painter and Letterer
Video Analyst

Metals

Blacksmith
Iron Worker
Machinist
Metal Work
Rail Asset Manager
Rail Repairer
Sheet Metal Worker
Track Laborer
Welder

Real Estate

Property Management Specialist
Real Estate and Asset Manager

Science

Chemist
Laboratory Supervisor
Materials Tester

Training/Education

Archivist/Librarian
Records Analyst
Research Analyst
Training and Development Instructor

Transportation Operations &

Equipment Maintenance

Bus Operator
Dispatcher
Ferry Operator
Heavy Equipment Operator
Inspector
Motor Person
Operations Control Center Director
Paratransit Coordinator
Train Operator
Trolley Motor Person
Truck and Tractor Driver



GEE: Opening Doors and Minds to Engineering

Business Case for **Girls Experiencing Engineering**

The Program. Girls Experiencing Engineering is a summer program that attracts young women to science, technology, engineering, and math (STEM) fields by increasing awareness of career opportunities, addressing misperceptions and stereotypes, and providing hands-on learning experiences that build confidence and offer leadership opportunities. GEE is hosted by the University of Memphis Herff College of Engineering and has been funded since inception by the Women's Foundation for a Greater Memphis.

National Need Explained. Critical to building an American workforce with 21st century skills is the recruitment, retention, and graduation of students in STEM fields. However, nationwide, lack of student interest in and preparation for various STEM fields, in particular engineering, results in a shortage of workforce talent. In addition, there is a lack of diversity in the STEM workforce. This is particularly important, as people of varied perspectives, backgrounds, and experiences are needed to solve the increasingly challenging problems faced by our global society.

The American Community Survey statistics show that women are still very underrepresented in STEM fields. Although women make up 50% of the U. S. workforce, they account for only 25% of the STEM workforce¹. The statistics for specific fields, such as engineering, are even more sobering. Only 13% of engineers in the U. S. workforce are women¹. These trends are concerning not only because women must be well represented in STEM in order to meet job market demands, but also because diversity of thought is very important for solving STEM challenges. In fact, numerous studies have documented a business case for diversity in terms of increased profit, innovation, and organizational performance, with these indicators being particularly linked to representation of women².

Local Relevance Explored. Within the State of Tennessee, it is anticipated that more than 100,000 STEM related jobs will need to be filled within the next six years and 88% of these jobs will require post-secondary education. Memphis mirrors these findings, with a large STEM industry based in transportation and logistics, bioscience, and chemical fields. Because of this significant industry base, it is essential to produce a talented STEM workforce locally.

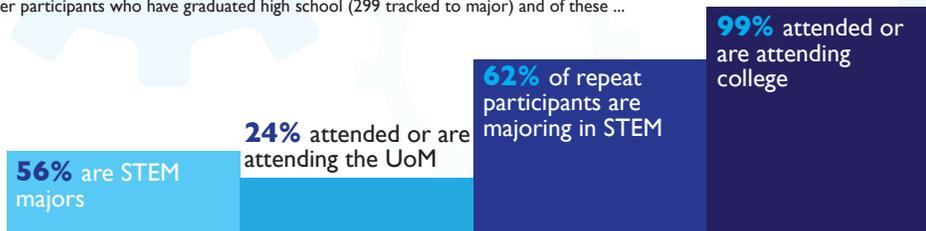
In Shelby County, women make up 50% of the local workforce but are significantly underrepresented in technical fields³. Women only hold 31% of jobs in the computer, engineering, and science (CES) occupations. The discrepancy is even greater for computer and mathematical occupations, where women make up 28% of the workforce and in architecture and engineering occupations, where they account for 22% of the workforce³. Median earnings in the CES sector are \$69,209, as compared to the overall median in all employment categories of \$49,647⁴. This is important because this sector is one of the top occupation categories in terms of earnings in Shelby County, and can lead to economic self-sufficiency for women.

Evidence of Success. Since its inception in 2004, the GEE program has engaged an estimated 1,821 students (including 1,105 unique participants where nearly 40% are repeat attendees), over 850 teachers, and 325 peer mentors. Program tracking efforts reveal that of the tracked former participants who have graduated high school, 99% are attending college and 56% are majoring in Science, Technology, Engineering, or Math. As more students progress from the middle school to the high school GEE programs, graduate, and enter college, it is expected that the number of STEM majors will also rise. This success contributes to the availability and diversity of a local STEM ready workforce, which is crucial for the local economy.

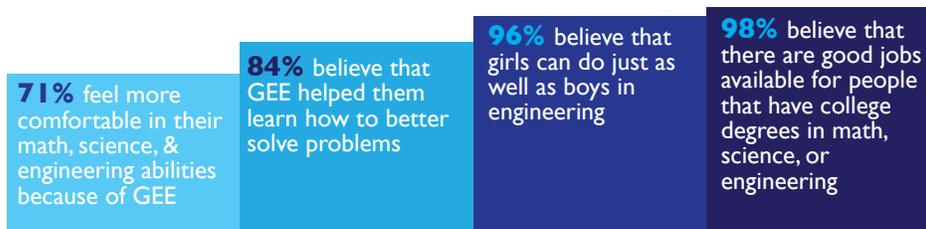
1. U. S. Census Bureau (2019). STEM Occupations by Sex, Race, and Hispanic Origin: 2012-2016 ACS 5-year.
2. McKinsey & Co. (2017). Women in the Workplace 2017. McKinsey & Co.
3. U. S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.
4. DataUsa (2017). Shelby County, TN. <https://datausa.io/profile/geo/shelby-county-tn>

GEE: Opening Doors and Minds to Engineering

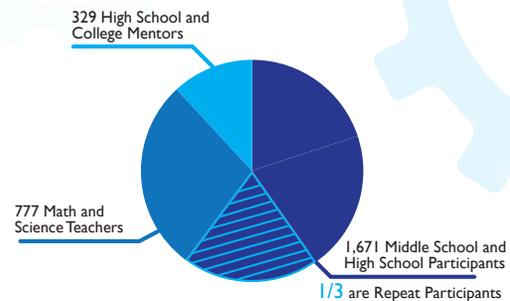
Longitudinal data on current student activities. We have been able to track 536 of 836 former participants who have graduated high school (299 tracked to major) and of these ...



Participant opinions as they exit the program.



Over the course of the past **16 years (2004-2020)**, GEE has involved **968 middle school and 853 high school students**. Importantly, approximately **88%** of these girls represent minority groups traditionally underrepresented in math, science, technology, and engineering fields. Of the high school girls selected to serve as mentors, **77% are now in engineering majors, 87% are in a STEM major, and 99% are in college!**



Hear from GEE Program participants.

“All my life I have wanted to be a scientist, and now **I feel like I can follow my dream.**”

“GEE was **fun, challenging, intriguing, and engaging!**”

“GEE has helped me figure out what I want to do when I go to college. I've enjoyed this program so much, and **I am definitely now considering becoming an engineer.**”

Thank you 2019 GEE Sponsors!!!



Introducing Youth to American Infrastructure





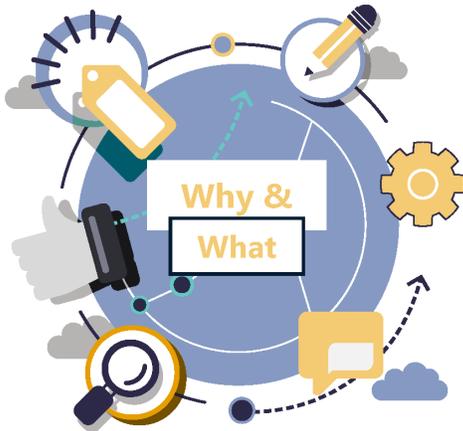
CTA OSC High School Internship Program Summer 2020



Motivating Today's Youth to Become
Tomorrow's Infrastructure Leaders, Skilled
Workforce, Innovators, Entrepreneurs
-- "*Community Builders*"



"Why" and "What" Infrastructure?



BACKBONE of Our Daily Lives and Communities

Decision-Making with **GENERATIONAL IMPACTS** – “People”, “Communities”, “Society”

Systemic **UNDER-REPRESENTATION** of “*People of Color*” and “*Women*”

Major **OPPORTUNITIES** – Community-Building, Careers, Business Development

MAKING A DIFFERENCE – “YOUR” LEARNED EXPERIENCE, “YOUR” VOICE, “YOUR” JOURNEY!”

PAGE 5



“Based on the pending retirements of older workers in our infrastructure sectors, our nation currently needs more than 14 million workers just to keep current systems running.

An infrastructure investment of \$1 trillion dollars would require an additional 11 million skilled workers.”

Andy Van Kleunen, CEO, National Skills Council



Poll: What is Critical National Infrastructure?

- ✓ ENERGY
- ✓ TRANSPORTATION
- ✓ WATER
- ✓ COMMUNICATIONS
- ✓ MANUFACTURING
- ✓ HEALTHCARE
- ✓ PUBLIC HEALTH
- ✓ FOOD/AGRICULTURE
- ✓ DEFENSE
- ✓ DAMS
- ✓ CHEMICAL
- ✓ NUCLEAR REACTORS
- ✓ INFORMATION TECHNOLOGY
- ✓ EMERGENCY SERVICES
- ✓ FINANCIAL/BANKING
- ✓ COMMERCIAL FACILITIES
- ✓ GOVERNMENT FACILITIES

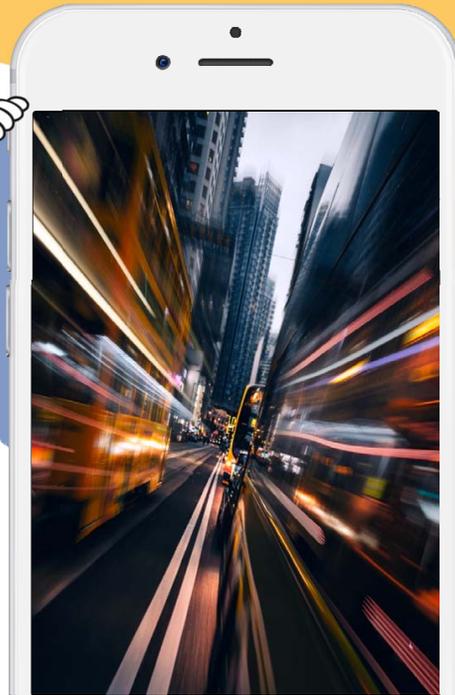


iyai+ Approach



Infrastructure is all
around us – often
“hidden” in plain
sight.

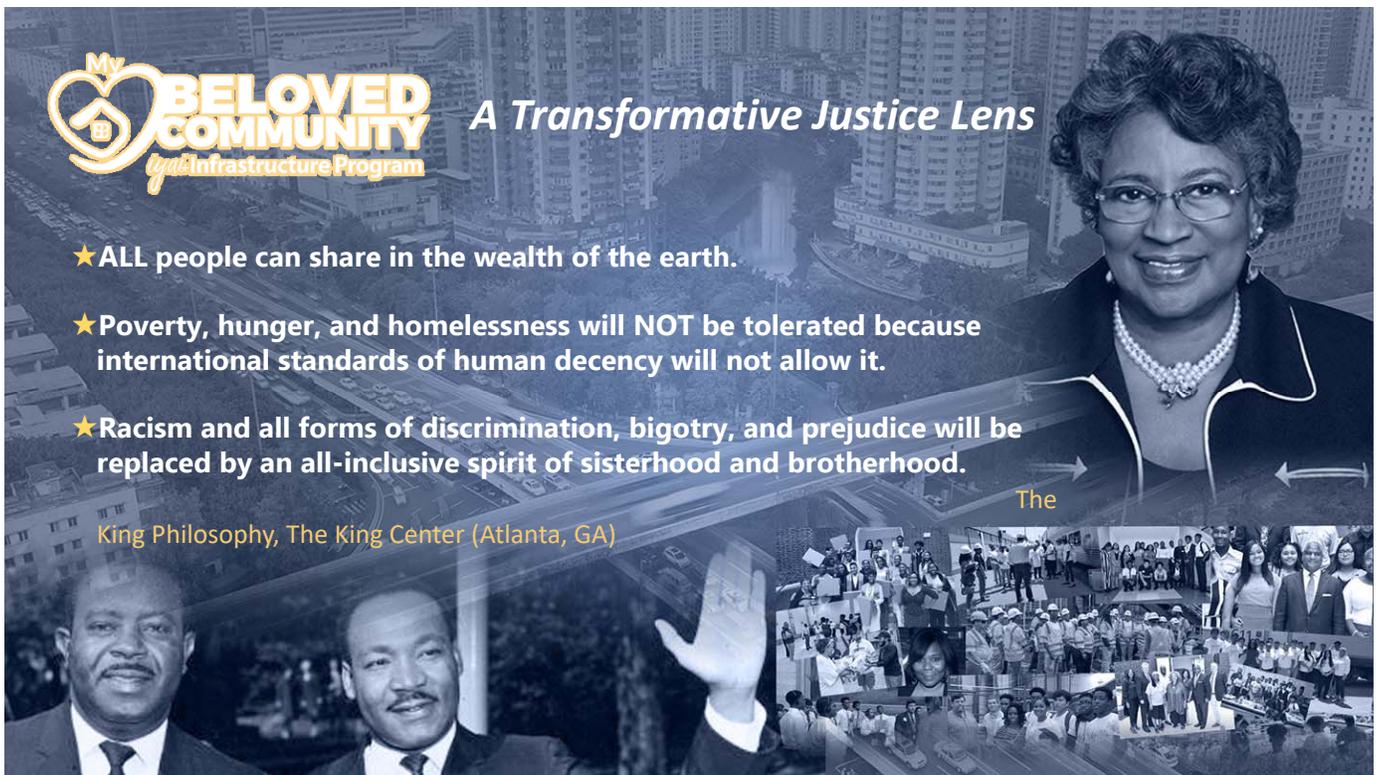
“Start by Looking, Planning &
Working in Your Own
Backyard!”



A Transformative Justice Lens

- ★ ALL people can share in the wealth of the earth.
- ★ Poverty, hunger, and homelessness will NOT be tolerated because international standards of human decency will not allow it.
- ★ Racism and all forms of discrimination, bigotry, and prejudice will be replaced by an all-inclusive spirit of sisterhood and brotherhood.

The King Philosophy, The King Center (Atlanta, GA)





My BELOVED COMMUNITY
iyai Infrastructure Program

A Transformative Justice Lens

- ★ International Disputes resolved by peaceful conflict resolution of adversaries, instead of military power.
- ★ Love and trust will triumph over hatred.
- ★ Peace with Justice will prevail over war and military conflict.

The King Philosophy, The King Center (Atlanta, GA)



Capstone Project "Telling Your Stories"

SELF reflections on WHY and HOW the critical infrastructure sectors are lifelines for our community -- starting with personal experience and insights. What have I learned? Perspectives on why continuity of these services is so critical, especially for our most vulnerable -- seniors, youth, persons with disabilities, transient and homeless, low-income and under-resourced communities.



Welcome Program Team Introductions



Our Team



Dr. Beverly Scott
iyai Founder / CEO



Rasaan Khalil
Program Manager
Coordinator



Alexis Stewart
iyai Sr. Fellow
Asst. Program Director



Saurav Pudasaini
Tech Support Admin



Citlalli Trujillo
Student Intern
Class Coordinator



Isaiah Chauhan
Student Intern
Class Coordinator



Okino
Student Intern
Class Coordinator



The National Center for Mobility Management is a national technical assistance center funded through a cooperative agreement with the Federal Transit Administration, and operated through a consortium of three national organizations - the American Public Transportation Association, the Community Transportation Association of America, and Easterseals Inc. (An accessible version of this brochure can be downloaded at www.nc4mm.org/about-us/.)



Promoting Customer-Centered Mobility Strategies

that advance good health, economic vitality,
self-sufficiency, & community

www.nc4mm.org

www.nc4mm.org



Supporting innovative and integrated transportation services through building capacity in communities in many ways:

- Planning and implementation grants
- Customized technical assistance
- Training for mobility management professionals, including in human-centered design strategies
- Facilitated partnership collaboration among transportation and non-transportation sectors

Sharing our expertise on many subjects:

- Mobility for veterans, people with disabilities, older adults, low-income individuals and families, and other community members
- Assistance in crafting transportation solutions for connecting to health care, employment, and social determinant of health destinations
- Evolving mobility modes, such as microtransit and on-demand services
- Technology and integrated mobility
- Human-centered planning and innovative design
- Coordination and funding strategies for transportation



Resources we offer:

- E-learning center (nc4mm.org/e-learning) with basic and advanced level training courses
- Information briefs, webinars, and in-person trainings
- Searchable blog posts covering trends, issues, news
- Direct contact with regional and subject matter experts
- By topic pages for easy access to news, reports, and resources

www.nc4mm.org

www.nc4mm.org



Module 4: Transportation Education Student Engagement

Learning Objectives

- Acquire ideas about implementing student-driven activities and projects;
- Obtain examples of student plans and checklists that empower youth to be engaged in transportation decision-making; and
- Implement student activities that facilitate learning and application regarding transportation topics.



Consider...

- Apply and use this material in a way that best aligns with your district's policies and practices.
- Customize contents to meet student needs.



3

Why Student Engagement?

- Students are critical informants to transportation education – Integrating transportation content into classroom instruction and activities will help students become more involved in transportation content and discussions about transportation options as they move across grades
- Providing students with opportunities to express their preferences and interests in transportation options will better ensure that choices are aligned with student needs
- Using tools, such as [Dane County Dane County T.R.I.P. Toolkit \(Transportation Reference and Individualized Planning\) Toolkit](#) can help students in developing customized transportation plans.



4

Suggested Activities to Focus on Student Skills

- Critical thinking - problem solving – Students must be equipped with the ability to solve problems they encounter in navigating their adult lives.
 - Student Activities (Ask students to write about what they would do if the bus or train is late, and they are trying to get to a job?)
- Communication – Students need to self-advocate when navigating their communities.
 - Student Activities (Ask students to interact with a bus driver for information or assistance.)
- Collaboration – Students need to know how to work with others to reach goals.
 - Student Activities (Ask students to collaborate on a transit project (Module 4) or plan a trip)
- Creativity – Students can innovate through projects.
 - Student Activities (Have students complete a service-learning project that reflect transit experience, such as examining accessibility of bus stops in a community (Module 4))



5

Student Led Projects - Enhancing Interest in Transit

- Art on the Bus
 - “We wanted to create art in some highly visible ways that helped promote public transit and the environmental benefit that increased ridership brings,” said a research director with the university center.
 - The Transit Agency had a contest for youth to develop artwork for the public buses - [Knoxville Area Transit](#)



6

Educators Creativity Regarding Transportation

- In 2013, Easterseals invited school districts to participate in student-led projects.
- Educators, transition professionals, and students identified community needs regarding transportation and developed student-driven projects to address these needs.
- In some cases, the projects fulfilled a service-learning requirement that the state had.



7

Student Led Projects - Accessible Transportation Mapping Project

District: Crestview Local Schools, Crestview, Ohio
Title of Project: Accessible Transportation Resource Mapping Service-Learning Project
The goal of the Accessible Transportation Resource Mapping Service-Learning Project was to determine the current and potential accessible transportation options for individuals with disabilities in Van Wert County, Ohio. Crestview High School students in the National Honor Society who did not have disabilities were matched with students with disabilities to develop a transportation resource list. Community transit professionals and transportation providers joined school transportation personnel, educators and administrators along with students, parents and families to assist in the project by identifying transportation needs and/or providing information on accessible transportation services which are or could be available in the community.
(This project was funded by Easter Seals Project ACTION and concluded in 2013)



[“American Education: Images of Teachers and Students in Action”](#)



8

Student Led Projects - Creating a Graphic of Transportation Services

Students in the Stow School System, Ohio designed various activities to attend and arranged for their mobility needs and schedules. The students met with Summit County Metro Transportation to discuss needs and learn about present options. They also developed graphical blogs, also known as glogs as we way to depict what they learned about transportation in their community. Finally, they presented to the Tri-County Resource Transition Council and the Kent State Center for Innovation in Transition. In summary, students conducted online research, participated in travel training activities and gave presentations to explore and conclude their findings.

(This project was funded by Easter Seals Project ACTION and concluded in 2013)



9

Student Led Project - Design a Transportation Marketing Project

This is from MUNI in San Francisco-- a short music video called "The Muni Mash." Created the Muni Accessibility Advisory Committee, the MAAC, using committee members, SFMTA staff, and students from the Access SF Unified School District program for transitioning students with developmental disabilities, as actors. Done in house with volunteer time.

These videos emphasize the importance of giving up your seat to older adults or individuals with disabilities.

- The Muni Mash: full length 3 min: <http://youtu.be/H5swO8nek08>
- The Muni Mash: short version 2 min: <https://www.youtube.com/watch?v=pWGjtHSoAy0>



10

Student Led Project - Design Informational Materials Getting Around the School Building or Community

- Youth may need to access a bus stop by walking, biking, or using a wheelchair;
- Youth may also have to navigate around a community to access the transit stop or access their destination once they deboard the bus or train.
 - The path that a student takes to get to or from a transportation station or stop is called a [path of travel](#) (glossary module, page 8).
- Have students develop a walking/biking map around their school building that they can share with their peers. Maps can include: obstacles that may impede navigation; Landmarks; Suggestions for improved accessibility. Students can share what they learned with the building and grounds personnel at their school building/community to improve path of travel.



11

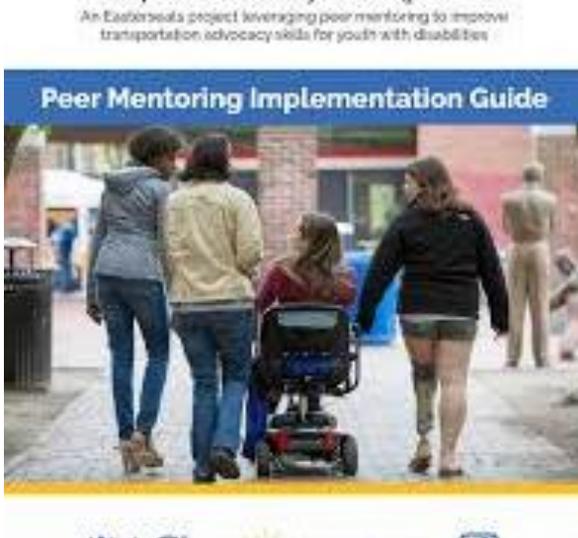
Navigation by Walking, Biking, or using an Assistive Device is part of Transportation Education

- Walking is often called active transportation and communities are educating their members about its importance to independent travel.
- States receive grants from the National Highway Traffic Safety Administration (NHTSA) to fund [Safe Routes to Schools Programs](#) (SRTS).
- [Curriculum](#) is developed that spans grade levels to educate students about pedestrian safety (see module 5).



12

Student-Led Project - Youth Advocacy



- Youth can be important informants to accessible transportation services in their community;
- Student voices can be powerful motivators to transportation service planners to redesign or change service;
- Consider encouraging students to develop a Transportation Advocacy Project.
- Easterseals supported a youth advocacy program through PYD (called TAMI) - obtain free materials [here](#).



13

Performance Measures

- Percentage change in the number of student-led project opportunities that youth have during the academic period.
- Percentage change in the number of student-led projects implemented by students.
- Percentage change in the number of organizations/individuals that are impacted by the student-led project (i.e. number of dissemination events, changes in transportation service, changes in path of travel conditions, etc.)



14

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of LIFE

Building Diverse Entry-Level Talent Pipelines & Retention Strategies

AUGUST 2019

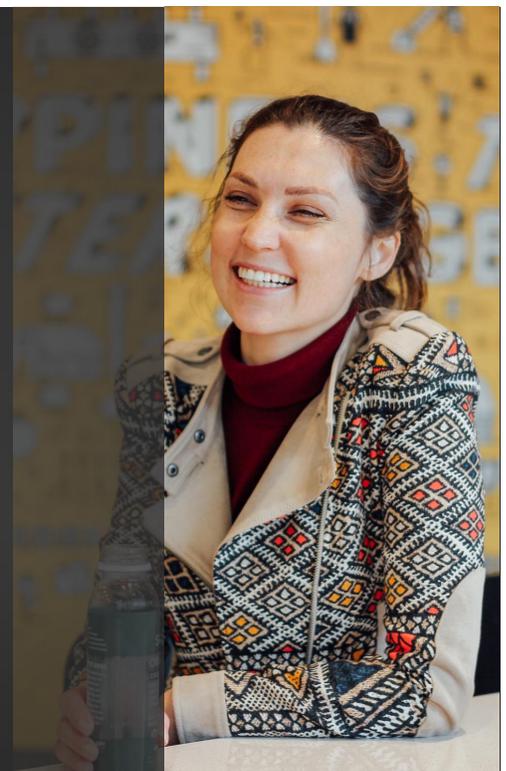


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Our Purpose

WHY WE MATTER TO YOUR BUSINESS

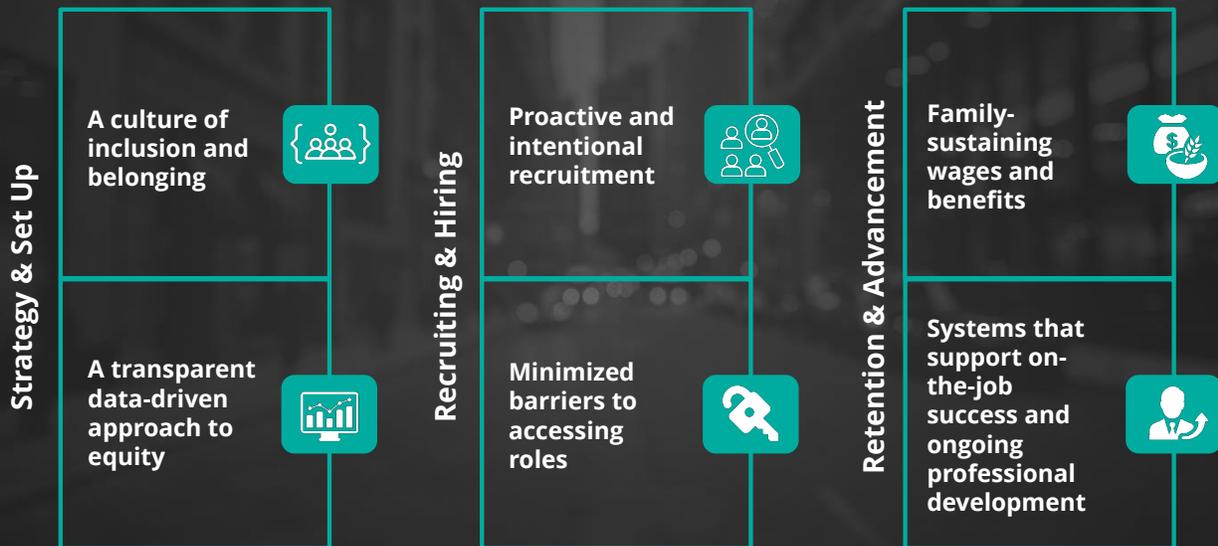
We are trusted advisors in helping leading employers create talent strategies that promote inclusion, equity, and opportunity within their organizations.



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Opportunity Employment

A STRATEGIC APPROACH TO INCLUSIVE TALENT MANAGEMENT



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We Work With Employers in Two Ways

HOW WE CONNECT WITH YOUR BUSINESS



1

Inclusive Talent Strategy & Design

We use human-centered design to help **identify and solve for friction at any stage in the talent pipeline, co-designing and testing solutions.**

Our **suite of innovative tools** support employers in the recruitment, hiring, development and retention of Opportunity Talent.

2

Implementation Support



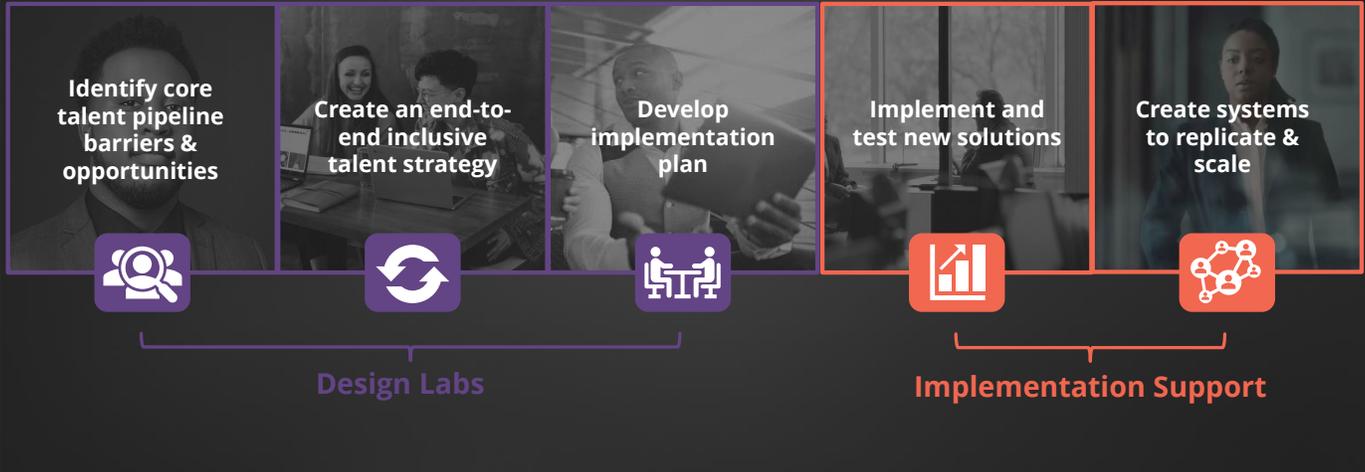
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Design Labs & Implementation Support

SERVICES

Our end-to-end **human-centered design** process – from needs assessment to design and scale – helps companies and organizations develop inclusive talent strategies based on Opportunity Employment practices.



GRADS
of LIFE



Opportunity Navigator

TAKE THE FIRST STEP

The **Opportunity Navigator** is a web-based tool designed to help employers assess themselves on **best practices** in recruiting, training, and retaining Opportunity Talent.

- A 15-minute, anonymous **tool for employers** to assess themselves against the best practices within each principle of Opportunity Employment.
- An **individualized scorecard** showing progress across the six principles of Opportunity Employment.
- A **compendium of vetted resources** including expert organizations, research, free tools, and more to help with implementation.

Explore the tool at www.OpportunityNavigator.org

COLLABORATORS

GRADS
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TALENT
REWIRE
Shared Value in Action



GOOD
JOBS
INSTITUTE



GRADS
of **LIFE**

Who Has Worked With Grads of Life?

PARTNERS



It starts with a Spark



Los Angeles after-school program uses engineering to empower, inspire

AVIATION, BRIDGE DESIGN, RAIL PLANNING, WATER RESOURCES.

These topics – and more – are the focus of SPARK LA, an immersive educational partnership between HNTB's Los Angeles office, the Girls Academic Leadership Academy (GALA): Dr. Michelle King School for STEM, and the City of Los Angeles.

Now approaching its fourth year, SPARK LA offers GALA students in grades 6 through 10 a chance to pull back the curtain and get an insider's look at engineering. That includes hearing from guest speakers and participating in hands-on activities, all of which are further



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grounded in real-world context taken straight from the bustling city that surrounds the school, including nearby rail construction, micro-mobility and a vibrant aviation industry.

As the program continues to grow and evolve, it's proven to not only be an effective resource for the students but also a rewarding opportunity for the SPARK LA coordinators.

Igniting a Spark
Initial inspiration for SPARK LA came from a similar program – also named SPARK – led by HNTB's Chicago office and targeted to high school students.



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"Someone in our LA office got wind of the Chicago program and said we should do something like it," said Laura Mohr, PE, HNTB vice president and SPARK LA program leader. "They looked at me and said, 'And you can organize it!'"

After closely examining the Chicago SPARK approach, Mohr decided on a few key changes to make in LA. For one, participating Chicago students were brought to HNTB's office each week for the sessions, something that wouldn't work given LA's size and heavy traffic.

In a case of perfect timing, HNTB reached out to both the City of Los Angeles and the Los Angeles Unified School District (LAUSD) to explore partnerships, just as a new school — GALA — was preparing to open. This new school welcomes all girls within the LAUSD who are committed to a highly rigorous, college preparatory curriculum focused on science, technology, engineering and mathematics.

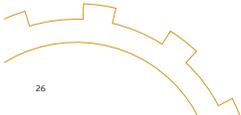
GALA Principal Liz Hicks, Ph.D., immediately expressed interest in participating in SPARK LA, and the City of Los Angeles, particularly Mayor Eric Garcetti and the Board of Public Works, quickly signed on, too.

"Our city only succeeds if everyone has an equal shot at success," Garcetti said in 2017. "For too long, our women and girls have been left behind and counted out, and I want Los Angeles to lead in employing and empowering women."

However, Mohr faced a big challenge: creating the program's curriculum.

"By engaging and inspiring students with opportunities that challenge them to think critically and build on their leadership skills, we're empowering young girls to become the next generation of STEM leaders."

- Laura Mohr, PE, HNTB Vice President and SPARK LA Program Leader



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START YOUR OWN SPARK PROGRAM

Just as HNTB's LA office took inspiration from Chicago's own SPARK program when creating SPARK LA, other offices and cities can create something similar.

SPARK LA program leader and HNTB vice president Laura Mohr gives advice on starting your own program.

STEP 1: ESTABLISH A PARTNERSHIP

Mohr recommends working with a local school and assessing if on-campus sessions are feasible (they're typically easier to facilitate than transporting students elsewhere).

STEP 2: DON'T HESITATE TO START SMALL

A four-week program can make an effective pilot project, especially if program coordinators, like the HNTB LA team, are juggling other tasks and responsibilities while creating and leading the program.

STEP 3: BE CREATIVE WITH THE PROGRAM

Mohr recommends mixing in some activities and demonstrations so that students aren't spending the entire time listening to someone else talk.

"When we started SPARK LA, my philosophy was that I didn't want to be standing up there talking to the students for too long — they've already been in school all day," Mohr said. "There's some talking and presenting, but we want to sit at the table next to them. Making those personal connections is what's going to get them interested in engineering."

New program facilitators who find themselves stuck on a particular detail or unsure of how to approach curriculum, can reach out to people like Mohr who can offer insight.

"When we started, I reached out to the Chicago team to find out more about some of the things they had done," Mohr said.

STEP 4: GIVE IT TIME

Mohr recommends after-school sessions that are an hour and a half. Any less than that and it can be difficult to get activities completed.

STEP 5: MAKE TIME TO EVALUATE

After the first year, make time to evaluate the program and identify opportunities to make changes. Enlist the students' help in offering feedback to help ensure the sessions are engaging.

"We did a survey this year asking the students which programs they enjoyed, and overall they said they liked all of the sessions," said Lilly Acuña, SPARK LA program coordinator and environmental planner.

Inform, empower, inspire

When developing each SPARK LA session, Mohr's resources included HNTB's project portfolio and her widespread network of clients and colleagues. While each session would explore a specific topic, the cumulative curriculum would address one question: what is engineering?

"A lot of students don't really know what an engineer does," Mohr said. "For them to even consider engineering as a career, they have to know what a structural engineer does — they might not have ever heard that term."

That's one of the reasons why HNTB's projects and expertise became such a valuable resource, not only to inform students but also to give them valuable context through nearby projects.

Take aviation, for example. HNTB has led a number of aviation projects, including terminal enhancements at Los Angeles International Airport.

When Mohr discovered that GALA had two computer flight simulators, she created an aviation module that began with a guest speaker to help set the stage for aviation-related career options.

"We look for opportunities to invite our clients to participate, and in this case, we had Van Nuys Airport Manager Flora Margheritis share how she got into the field," Mohr said. "She has a great story about how she started in the gift shop and worked her way up."



Another is model bridges built using gum drops and toothpicks, part of the bridge session that includes an emphasis on the Sixth Street bridge, a collaborative project between HNTB and the City of LA.

"If you're trying to get someone interested in a topic, give them something to take home and share and keep in their rooms," Mohr said.

Mohr ran the first year of SPARK LA by herself. Over the next few years, program assistance with planning and logistics came through the help of HNTB employees Teri Marsh, project engineer; Elena Salcedo, transportation planner; and Lilly Acuña, environmental planner.

Although some topics, such as aviation, bridges and water, have become a standard part of the SPARK LA curriculum, Mohr and the program coordinators embrace a degree of flexibility to align with current HNTB projects or pressing, engineering-related issues.

"This year, we added a session about micro-mobility, including shared cars like Uber and scooters," Mohr said. "Everyone enjoyed the session. However, since you have to be 16 to ride the scooters, they wanted to change the law!"

Just as school courses work toward a final project or exam, SPARK LA students take what they've learned and, at the end of the program, put that knowledge into action. Students participate in a project and then present it to the City of LA's Board of Public Works. This valuable opportunity gives them firsthand

knowledge of how the Board makes decisions, as well as helping them hone their presentation skills.

"By engaging and inspiring students with opportunities that challenge them to think critically and build on their leadership skills, we're empowering young girls to become the next generation of STEM leaders," Mohr said.

Lessons learned

The hope is the program will ignite the students' curiosity and inspire them to learn more about engineering. So far, that's exactly what's happened.

"After one of the sessions, I was approached by a parent who was so thankful that we were there. She told me her daughter wouldn't stop talking about the activities and what she learned."

Acuña said: "The students were coming home excited about the program, and this parent was interested in promoting what we were doing."



Acuña finished her first year with the SPARK LA program and said it proved to be as much a learning experience for her as the students.

"It was so inspiring and rewarding to see the spark as students participated in the activities. Their confidence grew and so did their interest in the engineering field," she said.

GALA principal, Dr. Hicks, also has noticed firsthand how SPARK LA has impacted participating students, which now totals 75.

"Exposure is everything," Hicks said. "Most of the girls at GALA have never had the opportunity to be introduced to the rich and varied field of engineering

CONTACT:
LAURA MOHR, PE, HNTB Program Leader
(213) 403-1011 • lmohr@hntb.com
www.linkedin.com/in/LauraMohrPE



SPARK MISSION

To introduce students in Grades 6-10 to STEM careers in the design, construction and engineering of Roads, Trains, Bridges, Parks, Tunnels and Airports by engaging the students in hands on activities with professionals.

The SPARK Program will meet weekly after school at GALA. The meetings will be led by HNTB project managers with additional representatives from the City of Los Angeles, HNTB and other organizations. Meetings may occasionally involve field trips to project or office sites.

SPARK participants will create an end of year project incorporating their learning through the regular sessions and present their work at the Los Angeles City Hall, Board of Public Works.

DEADLINE FOR APPLICATIONS: JANUARY 24, 2020.





PROGRAM APPLICATION

DEADLINE FOR APPLICATIONS: JANUARY 24, 2020

SPARK Program is **FREE** to Participants!

Name: _____ **Grade:** _____

Address: _____

City: _____ **Zip Code:** _____

Student Email: _____

What would you like to learn about the City? : _____

Why do you want to join SPARK?: _____

Student agreement:

I agree to regularly attend SPARK meetings at GALA and contribute to the project team activities.

Student Signature: _____ **Date:** _____

I agree to support this student's regular attendance at SPARK meetings and field trips and consent to the use of photographs/videotape taken during the course of the program for publicity, promotional, and/or educational purposes.

Parent/Guardian Signature: _____ **Date:** _____

For additional information, contact Adrienne Warlick (adrienne.warlick@lausd.net) or **Laura Mohr** (ljmohr@hntb.com). This program is sponsored by GALA, HNTB and City of Los Angeles, Board of Public Works.

Fill out the form above and return to the teacher

		<p>WEDNESDAYS 3:35 PM – 5:00 PM</p> <p>JANUARY 29 - MARCH 18</p>	
SCHEDULE			
<p>Week 1 1.29.2020</p> <p>Introduction/Tunnel Ice Breaker</p>	<p>Week 2 2.5.2020</p> <p>Rail Planning and Design</p>	<p>Week 3 2.12.2020</p> <p>Bridge Design</p>	<p>Week 4 2.19.2020</p> <p>Water Engineering</p>
<p>Week 5 2.26.2020</p> <p>Cost and Schedule Engineering</p>	<p>Week 6 3.4.2020</p> <p>Mobility and Technology</p>	<p>Week 7 3.11.2020</p> <p>Aviation and Flight Simulator</p>	<p>Week 8 3.18.2020</p> <p>Airport and Terminal Design</p>
CITY HALL FIELD TRIP - MARCH 25, 2020			

COLLABORATIVE PARTNERSHIP

The collaborative SPARK LA partnership between the City of Los Angeles and HNTB completed its inaugural year at the Girls Academic Leadership Academy.

The free after school program supplemented the new school's focus on a STEM curriculum – science, technology, engineering and math – to attract more female students to pursue degrees and professions where females traditionally are underrepresented.



SPARK OF COLLABORATION

Dear Friends,

Collaboration and inspiration best describe the partnership between HNTB Corporation, Los Angeles Mayor Eric Garcetti and the Department of Public Works in this inaugural year of the SPARK LA Program. SPARK was formed as a partnership effort to attract more female students to pursue degrees and professions where women are traditionally underrepresented. HNTB worked in tandem with the Los Angeles Unified School District's Girls Academic Leadership Academy (GALA), a new all girl middle school focusing on Science, Technology, Engineering and Mathematics (STEM) curriculum.

Our HNTB engineers, planners and architects spent 16 weeks at GALA, engaged with students by planning activities and completing projects designed to inspire these young women, create awareness for the transportation and engineering fields in hopes they may potentially pursue careers in these areas.

The City of Los Angeles is one of many across the country where HNTB is partnering to share our passion for engineering and transportation with youth in community groups and schools. We at HNTB strive for diversity in our corporation and know that by supporting SPARK LA STEM studies now, we are making an investment in our future and theirs; a future where these young women have the skills they need to succeed.

Congratulations on your impressive achievement this past year and we are eager to get started on the next!

Best Wishes,

Art Hadnett



HNTB is an infrastructure solutions firm providing award-winning planning, design, program management and construction management services.

hntb.com

2 SPARK LOS ANGELES YEARBOOK 2017



SPARK LA participants receiving certificates at Los Angeles City Hall



The program was conceived by Los Angeles Mayor Eric Garcetti as part of an effort to promote gender equity after a report published by the Mayor in 2015 found women and girls have been disadvantaged in Los Angeles. At a “Women in STEM” symposium last year, the Mayor announced that GALA was chosen to initiate the SPARK Program in Los Angeles to provide an engaging curriculum for GALA students that includes engineering and design challenges to create interest for STEM.

Since the school opened in August 2016, GALA's extensive community and educational partnerships ensure that students have access to the latest information in STEM fields, leadership training, and post-secondary preparation. The school welcomes all girls within the LAUSD who are committed to a highly rigorous, college preparatory curriculum focused on science, technology, engineering and math. By the 2019-20 school year, GALA plans to offer education for girls in grades 6-12.



“OUR CITY ONLY SUCCEEDS IF EVERYONE HAS AN EQUAL SHOT AT SUCCESS. FOR TOO LONG, OUR WOMEN AND GIRLS HAVE BEEN LEFT BEHIND AND COUNTED OUT, AND I WANT LOS ANGELES TO LEAD IN EMPLOYING AND EMPOWERING WOMEN.”

— Eric Garcetti, Los Angeles Mayor



SPARK MISSION

To introduce students in Grades 6-9 to STEM careers in the design, construction and engineering of public infrastructure by engaging the students in hands on activities with practitioners.

The SPARK Program will meet weekly after school at GALA. The meetings will be led by GALA Teacher Emilie Hill and HNTB Project Managers Laura Mohr and Liz Young with additional representatives from the City of Los Angeles, HNTB and other organizations. Meetings will occasionally involve field trips to project or office sites.

SPARK participants will create an end of year project incorporating their learning through the regular sessions and present their work at the Los Angeles City Hall, Board of Public Works.



**WEDNESDAYS 3:45PM – 5:15PM
JANUARY 18- MAY 10, 2017**

SCHEDULE

Week 1 1.18.2017 Welcome and Ice Breaker	Week 2 1.25.2017 Rail Planning and Design	Week 3 2.1.2017 Rail Planning Project	Week 4 2.8.2017 FIELD TRIP RAIL CONSTRUCTION
Week 5 2.15.2017 Water Resources	Week 6 2.22.2017 Water Activity	Week 7 3.1.2017 Green Technology LEED	Week 8 3.8.2017 FIELD TRIP HYPERION TREATMENT PLANT
Week 9 3.15.2017 Airport Architecture and Engineering	Week 10 3.22.2017 Airport Project	Week 11 3.29.2017 Bridge Design	Week 12 4.5.2017 Popsicle Stick Bridge Contest
SPRING BREAK 4.10.2017 – 4.14.2017			
Week 13 4.19.2017 Pocket Park Project: Introduction	Week 14 4.26.2017 Construction/Field Work	Week 15 5.3.2017 Pocket Park Project: Work Day 1	Week 16 5.10.2017 Pocket Park Project: Work Day 2

“We fully support the Mayor’s goal to develop gender parity in city leadership roles and are taking steps with our SPARK LA program to increase the interest of young women in engineering, construction and maintenance, which are traditionally male dominated fields,” said Heather Repenning, Board of Public Works Commissioner. “This innovative program engages middle-school students in hands-on activities with industry practitioners to generate excitement and interest to pursue STEM careers in the design, construction and engineering of public infrastructure projects.”

HNTB, as an internationally recognized infrastructure company with a history of apprenticeship and minority representation, was eager to participate, develop and help lead the program. HNTB developed 16 interactive weekly sessions related to infrastructure. Sessions included rail planning and design, aviation, tunneling, cost and schedule, water, bridges and park design. Students designed airports, learned about transit, and explored engineering and design challenges alongside industry professionals. The team of practitioners who shared career information helped small teams of students develop the year-end parks projects to incorporate their learning from the 16 weekly sessions.



“WE FULLY SUPPORT THE MAYOR’S GOAL TO DEVELOP GENDER PARITY IN CITY LEADERSHIP ROLES AND ARE TAKING STEPS WITH OUR SPARK LA PROGRAM TO INCREASE THE INTEREST OF YOUNG WOMEN...”

— Heather Repenning, Board of Public Works Commissioner

“We are honored to play a key role in the education of young girls by sharing our passion for engineering, architecture and planning with meaningful, hands-on experiences through our SPARK program in Los Angeles,” said Laura Mohr, PE, HNTB vice president, rail/transit group director and SPARK LA program leader. “By engaging and inspiring students with opportunities that challenge them to think critically and build on their leadership skills, we are empowering young girls to become the next generation of STEM leaders.”

HNTB, SPARK LA conclude first year of STEM curriculum at Girls Academic Leadership Academy

Student teams presented park designs to Board of Public Works commissioners, culminating the 16-week program on infrastructure

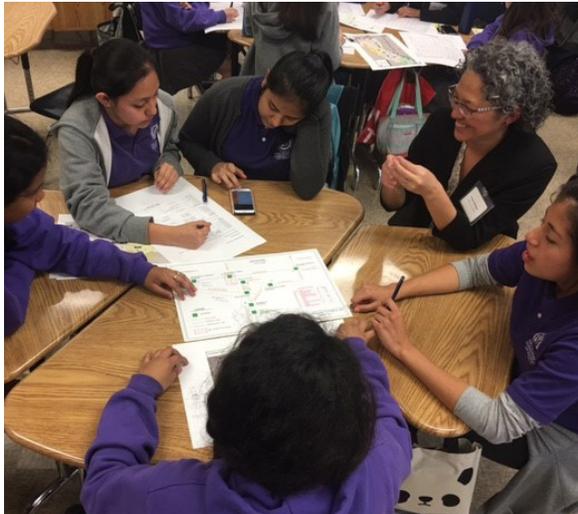
LOS ANGELES (May 23, 2017) - HNTB Corporation and the Los Angeles Board of Public Works culminated a productive school year partnership with the Los Angeles Unified School District's first all-girls middle/high school - the Girls Academic Leadership Academy. Student teams in the SPARK LA program presented original park designs to the Board of Public Works commissioners at a recent board meeting. Students also received certificates of completion and toured Los Angeles City Hall and city council chambers.



"I was so impressed by the creativity and the thought that went into each of the unique pocket park designs that were presented and encourage the girls to share them with their local council representatives," said Heather Repenning, Board of Public Works Commissioner. "Overall, this has been an incredibly innovative and beneficial program that actively engages middle-school students in hands-on activities with industry practitioners to generate excitement and interest to pursue STEM careers in the design, construction and engineering of public infrastructure projects."



RAIL MODULE



During the rail module, participants worked together to plan and design a rail system. Alongside HNTB and Metro transportation experts, the groups came up with ideas and prepared sketches.

AVIATION MODULE



Teams showcase their airport terminal designs for airports around the world.





“LAWA IS THRILLED TO PARTICIPATE IN THE SPARK LA PROGRAM AND INTRODUCE STUDENTS TO THE INCREDIBLE RESOURCE OF ONE OF THE BUSIEST INTERNATIONAL AIRPORTS IN THE WORLD.”

— Samantha Bricker, Deputy Executive Director for Project Development and Coordination for LAWA

Highlights of media coverage for SPARK LA aviation module.

California Patch

Los Angeles Patch

April 1, 2017

Bulletin Board

HNTB, SPARK LA bring aviation to Girls Academic Leadership Academy

Aviation module is the latest of 16 sessions focusing on infrastructure



California Patch

Highland Park Patch

January 23, 2017

Bulletin Board

HNTB partners with Los Angeles Board of Public Works to support LAUSD's new Girls Academic Leadership Academy

LA's first all-girls school provides rigorous college preparatory STEM curriculum and leadership training through HNTB SPARK LA program



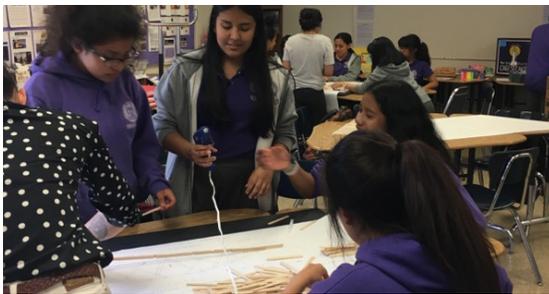
Los Angeles Board of Public Works recently completed two sessions with the Los Angeles Unified School District's first all-girls Academic Leadership Academy. The collaborative SPARK LA Los Angeles and HNTB supplements the new school's focus on technology, engineering and math – to attract more female professions where females traditionally are underrepresented.

HNTB aviation professionals and Los Angeles World Airports provided the opportunity to perform runway calculations and design for airports. Each student also received pilot training on the simulators. Professionals shared details about their career paths and the various activities.

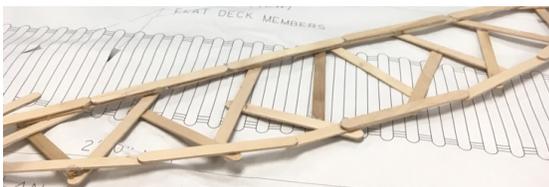
BRIDGE MODULE



Teams assembling popsicle stick bridge designs. No additional quotes needed.



The bridge design module included a popsicle stick bridge building contest. Working together, teams designed and assembled their bridge ideas and then tested them against real world challenges.



POCKET PARK MODULE

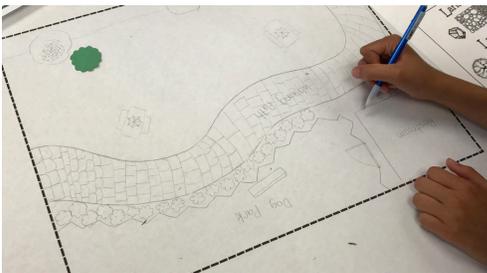


Teams showcasing original pocket park designs.



The park design module was the final session. Students took a field trip to Echo Park Lake for design inspiration and designed their own pocket parks in teams. The teams then presented their original park designs to the Board of Public Works commissioners at a board meeting at Los Angeles City Hall. Students received certificates of completion and toured City Hall and city council chambers.

“I was so impressed by the creativity and the thought that went into each of the unique pocket park designs that were presented and encourage the girls to share them with their local council representatives,” said Heather Repenning, Board of Public Works Commissioner. “Overall, this has been an incredibly innovative and beneficial program that actively engages middle-school students in hands-on activities with industry practitioners to generate excitement and interest to pursue STEM careers in the design, construction and engineering of public infrastructure projects.”



Additional media coverage for the SPARK LA program.



Girls Academic Leadership Academy Get Once-In-A-Lifetime Aviation Experience

April 10, 2017



THURSDAY, APRIL 6, 2017

Girls Academic Leadership Academy Gets Aviation Experience

Sentinel News Service

Los Angeles Board of Airports and HNTB recently commissioned a series of design sessions for five different airports. Each student also received pilot training on the school's own Cessna flight simulators. Professionals shared details about their career paths and coached the students through the various activities.

"This experience is a unique opportunity to showcase professional aviation careers and inspire young women to pursue their dreams," said Laura Mohr, PE, HNTB vice president, rail/transit group director and SPARK LA program leader.

"LAWA is thrilled to participate in the SPARK LA program and introduce students to the incredible resource of one of the busiest international airports in the world," said Samantha Bricker, deputy executive director for Project Development and Coordination for Los Angeles World Air-



Middle-school students from the Girls Academic Leadership Academy and their group leader (left) display their design of a terminal for London's Heathrow Airport.

ports. The aviation module is one of 16 interactive weekly sessions related to infrastructure. Sessions are led by a team of practitioners who share career information and help small teams develop year-end projects that incorporate their learning. These projects will be presented to the Board of

Public Works at City Hall. Since the school opened in August 2016, GALA's extensive community and educational partnerships ensure that students have access to the latest information in STEM fields, leadership training, and post-secondary preparation, technology, engineering and math.

Airport Improvement

HNTB, SPARK LA BRING AVIATION TO GIRLS ACADEMIC LEADERSHIP ACADEMY

Aviation module is the latest of 16 sessions focusing on infrastructure

Additional media coverage for the SPARK LA program.



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April 10, 2017



THURSDAY, APRIL 6, 2017

Girls Academic Leadership Academy Gets Aviation Experience

SENTINEL NEWS SERVICE

Los Angeles Board of Airports and HNTB recently commissioned a series of sessions of aviation experts from the Los Angeles International Airport Authority (LAA) to provide a unique opportunity to showcase professional aviation careers and inspire young women to pursue their dreams," said Laura Mohr, PE, HNTB vice president, rail/transit group director and SPARK LA program leader.

"LAWA is thrilled to participate in the SPARK LA program and introduce students to the incredible resource of one of the busiest international airports in the world," said Samantha Bricker, deputy executive director for Project Development and Coordination for Los Angeles World Airports.



Middle-school students from the Girls Academic Leadership Academy and their group leader (left) display their design of a terminal for London's Heathrow Airport.

The aviation module is one of 16 interactive weekly sessions related to infrastructure. Sessions are led by a team of practitioners who share career information and help small teams develop year-end projects that incorporate their learning. These projects will be presented to the Board of Public Works at City Hall.

Airport Improvement

HNTB, SPARK LA BRING AVIATION TO GIRLS ACADEMIC LEADERSHIP ACADEMY

Aviation module is the latest of 16 sessions focusing on infrastructure

PROGRAM FEEDBACK



“THE RESULTS OF THIS
COLLABORATION HAVE
EXCEEDED OUR EXPECTATIONS.”

— Laura Mohr, PE, HNTB Vice President, rail/transit group director
and SPARK LA program leader

“The exposure to infrastructure through hands-on experience and involvement is an essential component to engaging and encouraging the next generation of female professionals. I look forward to having SPARK at GALA again next year.”

SPECIAL THANKS

Los Angeles Public Works Board of Commissioners
LA Sanitation
Los Angeles World Airports
Los Angeles County Metropolitan Transportation Authority
Los Angeles Mayor, Eric Garcetti
Board Commissioner, Heather Repenning
Board Commissioner, Luz Rivas
LAWA Deputy Executive Director, Samantha Bricker
GALA Science Teacher, Emilie Hill
HNTB Vice President, Laura Mohr
HNTB Associate Vice President, Liz Young
HNTB Government Relations Director, Joshua Englander





HNTB



DRAFT PLAN FOR SPARK 2019 PARTNERSHIP WITH CPS CTE

Written by Irsilia Colletti

The plan is to take a Transportation (Level) project that has involved multiple disciplines and engage students to think critically about the challenges at each phase and how they can solve them. In addition, the process will highlight that any project is a major team effort and that all parts need to work together to create a successful outcome. For this upcoming year, we will use the Lakefront Trail Flyover. It will be reference in the suggested schedule below.

Per this draft, the majority of all sessions are intended to be held at the school. Please highlight or change where you think a work place visit may be beneficial.

SEPTEMBER [Date TBD] Evening 5PM-6:30PM or alternate time: Event at the school which hosts a panel of engineers; one or two college students, a young engineer, and someone more advanced in the field

- Pizza or similar and refreshments to be provided
- Students scheduled to attend engineering classes and their parents invited
- General welcome and introduction to the program
- Panelists share backgrounds and stories followed by a Q&A session for students and parents

Session 1: OCTOBER [Date TBD]

Introduce the project. Ideally, have the client come out and describe the problem and how they came to recognize it as a problem. Following the client's introduction, an HNTB planner discusses what their role is in a project. Assign students with the task of identifying what will need to be focused on for improving the area and meeting the needs of the users and the goals of the client.

Session 2: NOVEMBER [Date TBD]

Brief overview on what was covered last time. An HNTB Civil engineer will spend some time describing what they generally do and what their role is/was in the project. Assign the students to develop alignments. Reveal what the final alignment is.

Session 3: DECEMBER [Date TBD]

Brief overview on what was covered last time. An HNTB Civil engineer discusses general elements to look out for regarding conflicts and MOT and what needs to be considered regarding drainage, intermediate stages of the project and asks the students to define potential problems.

Session 4: JANUARY [Date TBD]

Introduce the aesthetic component. An architect discusses the architectural components considering surrounding landscape and purpose. Have students sketch up their ideas of what the bridge should look like, covering/introducing the idea of drafting and views of sections/elevations etc. Reveal how the bridge was rendered.

**Session 6: FEBRUARY [Date TBD]**

Introduce the structural component. An HNTB Structural engineer discusses structural challenges that arise from alignment and architectural demands. Based on the students previous sketches and alignments, assign them to identify structural challenges that would arise from their previous decisions.

Session 7: MARCH [Date TBD]

Introduce the construction component. An HNTB Construction Management employee or the contractor will describe general challenges about their disciplines. Assign students with the task of identifying construction challenges for their selected designs.

Session 8: APRIL [Date TBD]

FIELD TRIP. Take students out to see finished project first hand.

Session 9: MAY [Date TBD]

Session Close out. Open discussion and/or presentations of what the students did for the year. Perhaps this can be at our office with powerpoint or pdf presentations. Provide refreshments.



Metro Youth Career Experience: New Blue Improvements Project

Starting January 2019, the Blue Line will undergo a comprehensive eight-month modernization program to improve reliability and resiliency, enhance safety, and extend the service life of the Blue Line. In addition to track work, train control, and overhead power improvements, there will be significant improvements to the Willowbrook/Rosa Parks Station. Collectively known as the New Blue Improvements Project, this \$350 million construction project will modernize the Blue Line and bring it into a state of good repair.

The Metro Youth Career Experience will accomplish the following:

- Provide a platform for students to start a conversation with peers, teachers and mentors about perusing a potential career in transportation infrastructure
- Expose students to the development stages and strategies involved in a capital improvement project affecting their local community
- Educate students to the career paths that exist within the industry, specifically at Metro

Module 1: Build-a-Station

January 31, 2019

Transportation Career Path: Transportation Planner, Architect, Landscape Architect, Civil Engineer, Environmental Engineer

Summary:

In order to provide students with an in-depth look at the development stages involved in this major capital improvement project, the “Build-a-Station” module will provide direct exposure to the variety of tools that will be used to build the physical and social infrastructure needed to modernize the station.

- The students will use creative sustainable “placemaking” strategies including an integrated multi-use plaza (including a bike hub and bike lanes), wayfinding, circulation and connections to the community as well as security, and safety.

Module 2: Scenarios in Rail Operations

February 28, 2019

Transportation Career Path: Transportation Planner, Transportation Operations Manager, Service Operations Superintendent, Transportation Operations Director, Senior EO, Rail Operations

Summary:

Students will have an inside look into the inner workings of some of the biggest projects happening at Metro today. The Metro Rail Operations Department coordinates all activities that impact the railways throughout our system. The module will go through various aspects of Rail Operations including: simulations of events such as accidents on the tracks, line shutdowns, and special events. This will give students a hands-on learning experience on how different departments within Metro collaborate to handle major events on a short term and long term basis.





Module 3: Creating and Implementing Communications Tactics

March 27, 2019

Transportation Career Paths: Social Media, Customer Service, Printing Services, Graphic, Web and Mobil design, Marketing, Media Relations and Construction Outreach

Summary:

Through the lens of the New Blue Improvements Project, Metro's Communications department will share the various communication tactics being utilized and the related career paths. This interactive module will provide students with an opportunity to create a communications tactic for the New Blue Improvements Project. At Metro, there are six different units with the agency: Community Relations Program Management, Marketing, Public Relations, Government Relations, Customer Care, and Creative Services.

- Students will leave this module with an understanding of how communication strategies play a role within large capital projects affecting the transportation infrastructure industry.

Module 4: Construction and Infrastructure Project Management

April 23, 2019

Transportation Career Path: Project Manager, Field Engineer, Safety Manager, Quality Control Manager, Construction Foreman, Welder, Elevator Technician, Equipment Operator, Electrician

Summary:

This first part of this module will introduce students to the various career paths that are available within the construction, engineering, and project management industries. With a myriad of career paths coming together to successfully plan, manage, and construct the New Blue project, we will present different opportunities to the students that highlight education, emphasize building valuable skill sets, and encourage curiosity into the world of heavy infrastructure construction. Students will be able to interact with professionals of varying skill sets and education, ranging from university trained engineers to vocationally trained construction staff. The second part of this module will be a field session teaching students about concrete, one of the most beneficial building materials known to man.

- Students will learn the chemical composition of concrete, understand the chemical reactions that take place to create the concrete world that they see around them, and will have an opportunity to discuss and provide feedback on fun topics, such as how long concrete has existed, who invented concrete, and why concrete stands the test of time.

Module 5: Train Control Model

May 7, 2019

Transportation Career Path: Electrical Engineer, Mechanical Engineer, Civil Engineer.

Summary:

This module will introduce students to Systems Engineering Design and how it is applied at Metro. Students will learn the basic concepts of electronic circuits, logic design, microcontrollers, and train control signaling systems.

- Students will be guided in a project to build a working train model with a working fixed block train control system. The train model shall consist of railway signals, a train detection system, and a microcontroller that will illuminate certain aspect on the railway signals based upon the position of train on the track.

Students will leave this module having a basic understanding of how a primitive train signaling system works and the educational requirements to obtain a career in the field of train control.



Next stop: a better Blue Line.

NEW BLUE IMPROVEMENTS PROJECT

M

Metro Youth Career Experience
Willowbrook/Rosa Parks Station
Module | Build-a-Station

Title of Training: Metro Youth Career Experience: Willowbrook/Rosa Parks Build-A-Station

The Metro Youth Career Experience will accomplish the following:

- Provide a platform for students to start a conversation with peers, teachers and mentors about perusing a potential career in transportation infrastructure
- Expose students to the development stages and strategies involved in a capital improvement project affecting their local community
- Educate students to the career paths that exist within the industry, specifically at Metro

Transportation career paths highlighted in this module: Transportation Planner, Architect, Landscape Architect, Civil Engineer, Environmental Engineer

Summary:

Provide students with an in-depth look at the development stages involved in this major capital improvement project, the “Build-a-Station” module will provide direct exposure to the variety of tools that will be used to build the physical and social infrastructure needed to modernize the station.

- The students will use creative sustainable “placemaking” strategies including an integrated multi-use plaza (including a bike hub and bike lanes), wayfinding, circulation and connections to the community as well as security, and safety.

Preparation/ Materials:

- Facilitator Guide/Lesson Plan
- PowerPoint
- Activity Board photos (one copy for each group created to ensure everyone has each option available)
- Participant instructions and role descriptions (for each student)
- Worksheet for each role outlined in activity
 - Budget, Cost & Schedule Impact Worksheet
 - Presentation Worksheet
- Assessment tool: Exit Ticket

Handouts:

Materials should be to be given to each participant before the start of class.

- Participant instructions and role descriptions (for each student)
- Worksheet for each role outlined in activity
 - Budget, Cost & Schedule Impact Worksheet
 - Presentation Worksheet
- Assessment tool: Exit Ticket

Special Instructions:

- Ensure all students understand their role in the activity. It is recommended to print out both game rule slides to keep all students on track

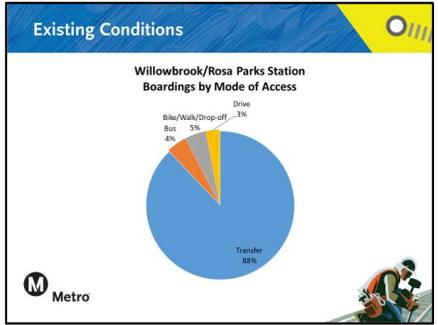
Suggested Common Core Standards:

- | | |
|---|---|
| • L.9-10.4. A, L.9-10.4. D, L.9-10.6 | • SL.9-10.1. B, SL.9-10, SL.9-10.4 |
| • L.11-12.4. A, L.11-12.4. D, L.11-12.6 | • SL.11-12.1. B, SL.11-12.1.C, SL.11-12.4 |
| • RH.9-10.4, RH.9-10.7 | • RST.9-10.4 |
| • RH.11-12.4, RH.11-12.7 | • RST.11-12.4 |

Procedures/Instructional Technique:

Estimated Time	Content/Key Points	Slide Preview
N/A	<p>Opening Slide:</p> <ul style="list-style-type: none"> • Have this slide up as you are setting up and participants are joining the session • Brief agenda for the day 	
Hook/Warm-Up		
5 minutes	<p>Why are we investing in your community Slide:</p> <p>ASK: After video discuss as a group</p> <ul style="list-style-type: none"> • What spoke to you the most from the video? • What are your overall thoughts? • What are your thoughts about Metro after watching this video? <p>FACILITATOR NOTE:</p> <ul style="list-style-type: none"> • LA Metro The Movement: Anthem 1 https://www.youtube.com/watch?v=UW_9vB-qTQo 	

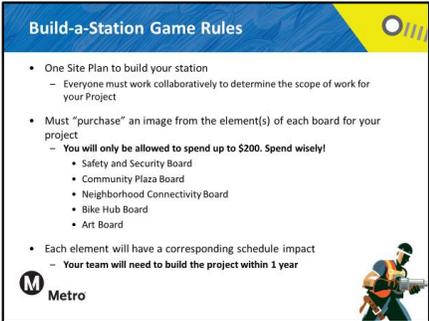
Estimated Time	Content/Key Points	Slide Preview
Explore: (Introduce Concept or Skill) "I Do"		
<p>Slide time: 5 minutes</p> <p>Total Time: 10 minutes</p>	<p>Why are we investing in the community Slide:</p> <p>PRESENT:</p> <p>The Willowbrook/Rosa Parks station in the last 7 years, the station area has seen more than \$120 million of investment, including the technologically advanced MLK Outpatient Center, the Charles Drew University, a new center for public health, a new affordable senior housing project, a new public library, and a wonderful collection of powerful public art.</p> <p>So with all of this investment occurring around the station, how do you turn it around? Well, first you invest in modernizing the infrastructure along Metro’s oldest and busiest rail lines.</p> <p>Metro is investing \$350 million (including Willowbrook/Rosa Parks Station Project) to enhance safety, increase reliability and improve customer experience.</p> <p>The improvements include train control, track work, overhead power, and some station area improvements on the entire 22 miles of Blue Line.</p> <p>Additionally, to improve the performance of the Blue Line, after more than two decades of use, most of the rail cars that have served the line in the past are being replaced with newer models already in service on the Expo and Gold Lines.</p> <p>Yet, there is so much physical undoing that has to be done at the Station; and so much remaining infrastructure to work around.</p> <p><u>Facilitator Note:</u></p> <ul style="list-style-type: none"> Slide 3,4,5 all articulate this information. 	

Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 0 minutes (continuation from above)</p> <p>Total Time: 10 minutes</p>	<p>Why are we investing in the community Slide:</p> <p>Facilitator Note:</p> <ul style="list-style-type: none"> Slide 3,4,5 all articulate this information. 	
<p>Slide time: 0 minutes (continuation from above)</p> <p>Total Time: 10 minutes</p>	<p>Why are we investing in the community Slide:</p> <p>Facilitator Note:</p> <ul style="list-style-type: none"> Slide 3,4,5 all articulate this information. 	
<p>Slide time: 5 minutes</p> <p>Total Time: 15 minutes</p>	<p>Existing Conditions Slide:</p> <p>PRESENT: Taking a further look at the Willowbrook/Rosa Parks station's existing conditions we analyzed how Metro's customers used this station the most. We found...</p> <ul style="list-style-type: none"> 88% of boardings represent transfers between the Blue and Green lines, making this station primarily a transfer facility. <p>ASK:</p> <ul style="list-style-type: none"> Why is it important for them to know this? How does this information help improve the customer experience? Who do you see as Metro's customers? <p>TRANSITION:</p> <ul style="list-style-type: none"> Let's look at some visuals of the existing station as it will help provide you context for the activity we will be doing together. 	

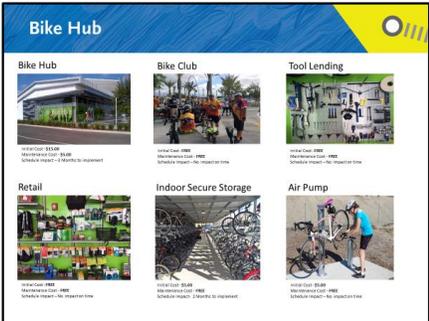
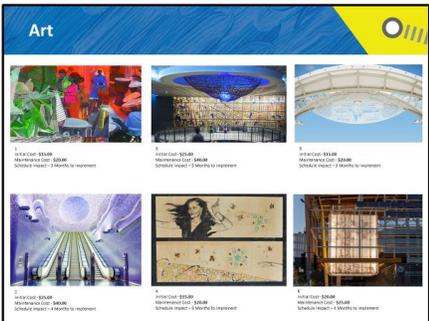
Estimated Time	Content/Key Points	Slide Preview
Engage: (What activities will students do?)		“We do”
Slide time: 5 minutes Total Time: 20 minutes	Existing Conditions Slide: <u>ASK:</u> <ul style="list-style-type: none"> • How would you feel if you were at this station? 	
Slide time: 5 minutes Total Time: 25 Minutes	Existing Conditions Slide: <u>ASK:</u> <ul style="list-style-type: none"> • What is the opportunity in this picture? • How could Metro better facilitate ADA accommodations? 	
Slide time: 5 minutes Total Time: 30 Minutes	Existing Conditions Slide: <u>ASK:</u> <ul style="list-style-type: none"> • What type of environment does the existing station create? 	

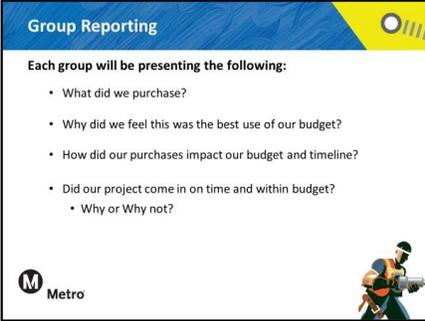
Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 35 Minutes</p>	<p>Existing Conditions Slide:</p> <p>ASK:</p> <ul style="list-style-type: none"> • How would you feel if you needed to use this station daily? • What safety concerns would you have? • What does this environment need? <ul style="list-style-type: none"> ○ <i>Example: Lights, how many are needed? How much would this cost?</i> ○ <i>This will help introduce the concept of spending...</i> 	
<p>Slide time: 5 minutes</p> <p>Total Time: 40 Minutes</p>	<p>Existing Conditions Slide:</p> <p>PRESENT: Retroactively installed faregates and a cramped mezzanine make the experience chaotic, and confusing to even the most transit-savvy. The scale of the freeway infrastructure and noise generated by the trucks, cars, busses and trains above add to the station's inhumane feel.</p> <p>ASK:</p> <ul style="list-style-type: none"> • Being that this station's customers are transferring to other lines/Metro services, how do you think this impacts customers? • What potential implications may you face during rush hour if you were transferring here? 	
<p>Slide time: 5 minutes</p> <p>Total Time: 45 Minutes</p>	<p>Existing Conditions Slide:</p> <p>PRESENT: And what about the station's relationship to the community?</p> <p>The perimeter design only reinforces this station's role as a transfer facility. When disembarking from the Blue Line, this is what you see, the loading docks of strip retail center.</p> <p>ASK:</p> <ul style="list-style-type: none"> • Why is this important to update? 	

Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 50 minutes</p>	<p>Existing Conditions Slide:</p> <p>PRESENT: And what about the station’s relationship to the community?</p> <p>The perimeter design only reinforces this station’s role as a transfer facility. When disembarking from the Blue Line, this is what you see, the loading docks of strip retail center.</p> <p>ASK:</p> <ul style="list-style-type: none"> • What types of updates would you make to create more of a connection to the community? • What type of art would be helpful to showcase at the station? 	
<p>Slide time: 5 minutes</p> <p>Total Time: 55 minutes</p>	<p>Site Plan Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> • We are going to participate in an activity that will help us better understand the planning, budget and execution process in building a station, or in the case at Willowbrook/Rosa Parks, making improvements to an existing station. • What you see on this slide is a site plan for the existing Willowbrook/Rosa Parks station. • You will work in teams to build your own station. Each of you will have a specific job/role in this process. In the end, your team will present your findings and reasoning for selection the station components you did. 	

Estimated Time	Content/Key Points	Slide Preview
Engage: (What activities will students do?) "We do"		
<p>Slide time: 5 minutes</p> <p>Total Time: 60 minutes</p>	<p>Build-a-Station Game Rules Slide: PRESENT: Each team will have the following positions:</p> <ul style="list-style-type: none"> • Executive Officer, Finance: Responsible for establishing and maintaining the budget for the Project • Executive Officer, Facilities/Property Maintenance: Responsible for managing initial cost and maintenance costs • Executive Officer, Project Management Oversight: Responsible for maintaining the schedule for the Project • Executive Officers, Planning: Responsible for coordinating the team's presentation <p>FACILITATOR NOTE:</p> <ul style="list-style-type: none"> • EO's of Finance and Facilities/Property Maintenance will work together to ensure costs are within budget • Executive Officers, Planning: you may have more than one student in this role if you have more than 4 students in each group. 	
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 5 minutes</p>	<p>Build-a-Station Game Rules Slide: PRESENT:</p> <ul style="list-style-type: none"> • Each group will get one Site Plan to build your station on. Everyone must work collaboratively to determine the scope of work for your Project • Must "purchase" an image from the element(s) of each board for your project <ul style="list-style-type: none"> ○ You will only be allowed to spend up to \$200. Spend wisely! <ul style="list-style-type: none"> ▪ Safety and Security Board ▪ Community Plaza Board ▪ Neighborhood Connectivity Board ▪ Bike Hub Board ▪ Art Board • Each element will have a corresponding schedule impact <ul style="list-style-type: none"> ○ Your team will need to build the project within 1 year 	

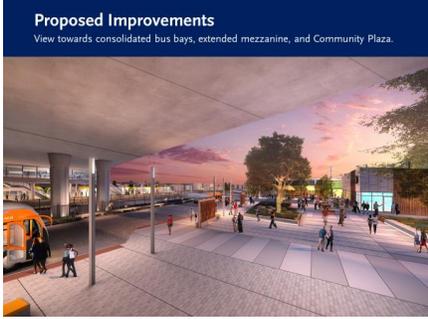
Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 10 minutes</p>	<p>Safety & Security Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> There are five boards that your team will review together. These represent five areas that Transportation Planners look at when planning a station. Depending on the needs of the station itself, these areas may change depending on what customers and the community feel are important for that specific station. You have complete flexibility to select any or none of the elements on each board. Please keep in mind, when you present your findings, you will need to articulate why or why not certain selections were made. You also have a budget and time deadline, keep both of areas central to your discussion at each board also. <ul style="list-style-type: none"> Each element has an initial cost, maintenance cost and schedule impact to help guide your discussion Initial Cost: what it costs up front Maintenance Cost: what it will cost to keep that element up to date, clean and customer ready Schedule Impact: how much time will it take to implement 	
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 15 minutes</p>	<p>Community Plaza slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> There are various elements that make up the Community Plaza station board. These elements are all centered around bringing people together and creating a common space for customers that use the station. <p>ASK:</p> <ul style="list-style-type: none"> Why do you think it is important to incorporate these elements when building a light rail station? 	

Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 20 minutes</p>	<p>Neighborhood Connectivity Slide:</p> <p>ASK:</p> <ul style="list-style-type: none"> • What role do the elements in Neighborhood Connectivity play in the building of a station? • Are they important? Why/Why Not? 	
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 25 minutes</p>	<p>Bike Hub slide:</p> <p>PRESENT/ASK:</p> <ul style="list-style-type: none"> • You will notice there are many free resources available at this board. <ul style="list-style-type: none"> ○ Why do you think these may come free to those planning to build the station? ○ Are they necessary? <ul style="list-style-type: none"> ▪ Why/Why Not? 	
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 30 minutes</p>	<p>Art Slide:</p> <p>PRESENT/ASK:</p> <ul style="list-style-type: none"> • The last board contains artwork for your station. <ul style="list-style-type: none"> ○ Is art needed at every Metro Station? Why/Why Not? ○ How can Art transform the customer experience? ○ Where should Metro source artwork from? Why? <p>(FYI: Metro sources artwork from local artists in each community we serve. This creates a local community connection and creates opportunities for artists to showcase their pieces locally)</p>	

Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 1 hour 35 minutes</p>	<p>Group Reporting Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> • Each group will be presenting the following: <ul style="list-style-type: none"> ○ What did we purchase? ○ Why did we feel this was the best use of our budget? ○ How did our purchases impact our budget and timeline? ○ Did our project come in on time and within budget? Why or Why not? 	
<p>Activity Set up Time: 5 Minutes</p> <p>Activity Time: 1 hour</p> <p>Total Time: 2 hours 45 minutes</p>	<p>Facilitator Note:</p> <ul style="list-style-type: none"> • At this time, don't advance to the next slide. Take a moment to review roles, game rules and pass out appropriate worksheets: <ul style="list-style-type: none"> ○ Executive Officers of Finance, Facilities/Property Maintenance & Project Management Oversight will use: Budget, Cost & Schedule Impact Worksheet ○ Executive Officer of Planning will use: Presentation Worksheet • Once students have gone through each board, made their selections and calculated their budget and timeframes, they will be ready to present. • This activity takes about one hour to complete once the educator sets everything up 	<p>Set up Activity, pass out worksheets and place students in appropriate groups</p>

Estimated Time	Content/Key Points	Slide Preview
Wrap Up: "Closure"		
<p>Slide time: 5 minutes</p> <p>Total Time: 2 hours 50 minutes</p>	<p>Recap of Project Goals slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> Now that everyone has had an opportunity to present their site plans for the building of their station, lets take a look at the Willowbrook/Rosa Parks station project goals: <ul style="list-style-type: none"> Address safety and security concerns Enhance connections to surrounding community Expand station capacity Improve multi-modal connections 	
<p>Slide time: 1-2 minutes</p> <p>Total Time: 2 hours 52 minutes</p>	<p>What we heard Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> This is a word cloud to articulate what Metro heard in conducting community listening sessions. These are the elements the community felt were important to incorporate at the Willowbrook Rosa Parks station. The bigger and bolder the word, the more times it came up, meaning it was important to many members of the community. 	
<p>Slide time: 3 minutes</p> <p>Total Time: 2 hours 55 minutes</p>	<p>What we heard: Survey Results Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> To improve experience in station: <ul style="list-style-type: none"> Provide public restrooms Increase security surveillance, especially at night Reduce crowding on the Blue Line platform and mezzanine Increase signage and real time arrival information To encourage use of station and new civic plaza: <ul style="list-style-type: none"> Provide free Wi-Fi Add small shops or kiosks with coffee, juice or snacks Provide public restrooms Provide a comfortable place to sit 	

Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 3 hours</p>	<p>What we heard Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> The following are proposed changes from various views around the station. Please note, these are not the final schematics and are subject to change. <p>FACILITATOR NOTE:</p> <ul style="list-style-type: none"> You can go through the following slides as quickly or slowly as your timeline permits. I have included some questions you can ask your students to have meaningful discussion around the proposed changes. These questions add time overall and can be used as needed. 	 <p>The slide preview shows a blue header with the text 'What we heard:'. Below the header, the main content area features the title 'Design Refinements' and the subtitle 'Metro's Response'. At the bottom left is the Metro logo, and at the bottom right is an image of a person in a safety vest.</p>
<p>Slide time: 5 minutes</p> <p>Total Time: 3 hours 5 minutes</p>	<p>Proposed Improvements Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> The following are proposed changes from various views around the station. Please note, these are not the final schematics and are subject to change. <p>ASK:</p> <ul style="list-style-type: none"> What kind of environment do these proposed changes create? 	 <p>The slide preview shows a blue header with the text 'Proposed Improvements' and a subtitle 'View East from Wilmington Ave pedestrian entrance towards the Station.'. Below the header is a photograph of a modern station entrance with a large 'M' logo, trees, and people walking.</p>
<p>Slide time: 5 minutes</p> <p>Total Time: 3 hours 10 minutes</p>	<p>Proposed Improvements Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> The following are proposed changes from various views around the station. Please note, these are not the final schematics and are subject to change. <p>ASK:</p> <ul style="list-style-type: none"> How do you think these proposed changes will impact Metro Customers? 	 <p>The slide preview shows a blue header with the text 'Proposed Improvements' and a subtitle 'View West from Willowbrook Ave East towards the new crossing and extended platform.'. Below the header is a photograph of a station platform with a train, tracks, and surrounding infrastructure.</p>

Estimated Time	Content/Key Points	Slide Preview
<p>Slide time: 5 minutes</p> <p>Total Time: 3 hours 15 minutes</p>	<p>Proposed Improvements Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> The following are proposed changes from various views around the station. Please note, these are not the final schematics and are subject to change. <p>ASK:</p> <ul style="list-style-type: none"> How can the community benefit from these proposed changes? 	
<p>Slide time: 5 minutes</p> <p>Total Time: 3 hours 20 minutes</p>	<p>Proposed Improvements Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> The following are proposed changes from various views around the station. Please note, these are not the final schematics and are subject to change. <p>ASK:</p> <ul style="list-style-type: none"> How do you think these proposed changes impact safety and security? 	
<p>Slide time: 5 minutes</p> <p>Total Time: 3 hours 25 minutes</p>	<p>Proposed Improvements Slide:</p> <p>PRESENT:</p> <ul style="list-style-type: none"> The following are proposed changes from various views around the station. Please note, these are not the final schematics and are subject to change. <p>ASK:</p> <ul style="list-style-type: none"> How do these proposed changes add value to the surrounding communities at this station? 	

Estimated Time	Content/Key Points	Slide Preview
Assess:		“Closure”
Slide time: 5 minutes Total Time: 3 hours 30 minutes	Thank you slide: ASK FOR ASSESSMENT: (Discussion) <ul style="list-style-type: none"> • What are some of the things you learned today? • Has your perception of transportation infrastructure changed? Why/why not? • Has your perception of LA Metro Changed? Why/Why Not? PRESENT: <ul style="list-style-type: none"> • To complete this lesson, each of you will have an exit ticket. • <i>Share 3 important elements to think about and include when building your own a transit station.</i> <ul style="list-style-type: none"> ○ <i>The exit ticket is a written exercise.</i> 	

**Total time for this presentation and activity can be at minimum 3 hours and maximum 3 hours, 30 minutes depending on how quickly you want to go through each slide and activity.*

METRO FAITH LEADERS ADVISORY COUNCIL

Project Labor Agreement
Construction Careers Policy
Workforce Initiative Now – Los Angeles



Project Labor Agreement / Construction Careers Policy

- **Project Labor Agreement (PLA)**
 - A type of contract with the trades used in the construction industry to set the terms and conditions of employment
- **Construction Careers Policy (CCP)**
 - A policy designed to provide employment and training opportunities to targeted workers
- Metro's PLA/CCP was approved by the Board on January 26, 2012 and renewed January 26, 2017



PLA/CCP Workforce Goals

- > **40% Targeted Workers**
 - An individual whose primary residence is within an extremely or economically disadvantaged area
- > **10% Disadvantaged Workers**
 - A Targeted Worker who faces at least 2 of the following; (homeless, custodial single parent, receiving public assistance, lacking GED or HS diploma, having a criminal record or involvement with the justice system, chronic unemployment, emancipated from foster care system, veterans of Iraq/Afghanistan war, apprentice with less than 15% of apprenticeship hours
- > **20% Apprentice Workers**



PLA/CCP Projects

Construction Projects

- 30 projects subject to the program to date
- 11 active projects (2 projects have been awarded but have not yet started)
- 8 upcoming projects
- 11 projects completed

\$5+ Billion in Contract Value



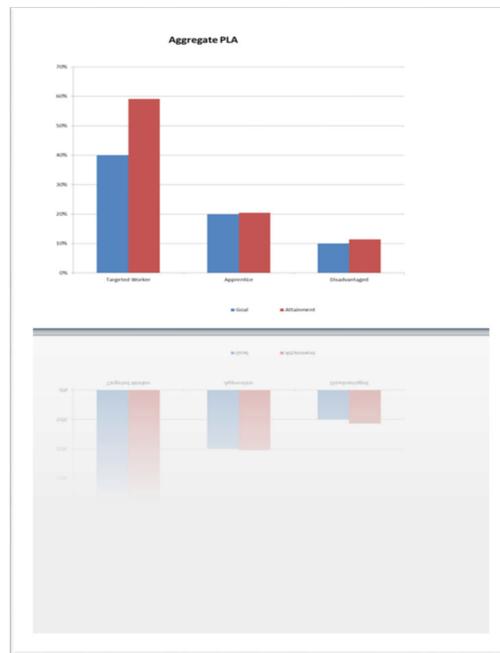
PLA/CCP Projects (Cont'd)

All Active & Closed Projects

Targeted Worker Goal - 40%
Current Attainment = 59.17%

Apprentice Worker Goal – 20%
Current Attainment = 20.50%

Disadvantaged Worker Goal – 10%
Current Attainment = 12.09%



Steps to a Construction Career

metro.net

STEP 1
CHOOSE A TRAINING PROGRAM

- > Pre-Apprenticeship Programs
- > Trade Schools and Community Colleges
- > Worksource Centers
- > Job Corps
- > Community Based Organizations
- or
- > Go straight to a Union

STEP 2
GET REFERRED

> Get referred to a Union Apprenticeship training program in one of the 17 Building Trades

STEP 3
TAKE AN EXAM

> Take an Apprenticeship exam

STEP 4
INTERVIEW

> Interview for the Apprenticeship you want

STEP 5
Construction Apprentice Program

THIS IS A PAID PROGRAM APPROXIMATELY 5 YEARS LONG

TRAINING PLUS UNION MEMBERSHIP

Requirements vary based on trade specific Apprenticeship programs.

- > Paid Classroom Instruction
- > Paid on-the-job training
- > Benefits
- > Start earning right away

STEP 6
After Certificate of Completion

- > Gain work experience
- > Become a journey person
- > Maintain Union Membership and stay on the hiring list

Metro

For more information on Metro's Construction Careers Policy and Project Labor Agreement, visit metro.net/pla.

Project Labor Agreement and Construction Careers Policy

The Metro Board of Directors adopted the Construction Careers Policy (CCP) and Project Labor Agreement (PLA) to encourage construction employment and training opportunities on Metro projects for workers residing in economically disadvantaged areas and for Disadvantaged Workers as defined in the PLA/CCP. The PLA and CCP were approved by Metro's Board of Directors on January 26, 2012.

How can I determine if I live in an economically disadvantaged area or meet the Disadvantaged Worker eligibility criteria as defined in Metro's PLA? Please visit Metro's PLA/CCP website at the address below for a listing of zip codes meeting the economically disadvantaged area criteria and Disadvantaged Worker eligibility requirements.

How can I learn more about job opportunities available on PLA/CCP projects? As projects are awarded, Prime Contractors are required to designate a PLA/CCP Jobs Coordinator who will be the main contact for individuals seeking employment in accordance with Metro's PLA/CCP hiring goals. The Jobs Coordinator contact information by Project will be posted on Metro's PLA/CCP website as projects are awarded.

The types of trades typically used on large Metro construction projects include the following:

- Carpenters
- Electricians
- Class Workers
- Graffiti Coating Workers
- Hand Rail Workers
- Irrigation Workers
- Laborers
- Landscapers
- Masonry Workers
- Miscellaneous Steel Workers
- Operating Engineers
- Painters
- Plumbers
- Signage
- Iron Workers
- Teamsters
- Tile Layers

Please visit Metro's PLA/CCP website for more information: metro.net/pla

What is the Project Labor Agreement? The PLA is an agreement between Metro and the building trades that sets the terms and conditions of employment on projects. Metro's PLA allows for the expeditious resolution of disputes that may arise in the course of the project, thereby helping to ensure that the project is delivered on time and that quality standards are maintained.

What is the purpose of the PLA? The purpose of the PLA is to set forth procedures for hiring targeted workers, facilitating the entry of workers into apprenticeship programs and to provide for orderly settlement of labor disputes and grievances without strikes or lockouts. PLAs are effective tools for implementing Construction Careers Policies (CCP) and providing avenues for workers to obtain apprenticeship training.

What are the PLA/CCP Hiring Requirements? All contractors working on Metro construction projects covered by the PLA and CCP will be required to comply with certain targeted hiring requirements.

The PLA and CCP require 40% participation of construction workers residing in economically disadvantaged areas, 10% participation of disadvantaged workers and 20% apprentice participation. Please visit Metro's PLA/CCP website at the address listed to the right for further information.

Can non-union contractors or subcontractors bid on projects with PLAs? Yes. Non-union contractors can bid on the projects as long as they agree to abide by the wages, benefits, core worker utilization and other conditions specified in the PLA by signing a Letter of Assent.

What is the CCP? The Construction Careers Policy (CCP) is designed to provide employment opportunities to workers residing in economically disadvantaged areas, disadvantaged workers and apprentices.

Metro

Additional Information: www.metro.net/pla

The screenshot shows the Metro website header. On the left is the Metro logo. To its right are navigation tabs: "Getting Around", "News & Media Now", "Projects & Programs", and "About Us". Below these are four columns of links: "Who We Are" (Overview, Board of Directors & Executives, Meetings & Agendas, Metro Careers), "Serving You" (Project Labor Agreement, Committees & Departments, Service Councils, Service Changes), "Business Opportunities" (Basics for Vendors, Small Business Programs, Solicitations, Business Advisory Council), and "How to Reach Us" (Help & Contacts, Customer Comments, Lost & Found, Advertising & Filming Inquiries). A search bar is located at the bottom right of the header.

Project Labor Agreement & Construction Careers Policy



Overview FAQs Hiring Requirements

Metro adopted the Construction Careers Policy (CCP) in conjunction with the Project Labor Agreement (PLA) to encourage construction employment and training opportunities to those who reside in economically disadvantaged areas on Metro construction projects. The agreement applies to certain [local](#) (non-federally) funded and [federally funded](#) construction projects with a life of project value greater than

Stay Connected
Receive email alerts and follow on the web.



PLA/CCP Program

- [Project Labor Agreement](#)
- [Construction Careers Policy](#)

Contractor Resources & Forms

- [Construction Trades Contact List](#)
- [Craft Request Form](#)
- [Letter of Assent](#)

Workforce Initiative Now Los Angeles

WIN-LA provides ladders of opportunities

- > Creates career pathways in the areas of:
 - Construction
 - Operations/Maintenance
 - Administration
 - Professional Services
- > Establishes a collaborative model of partners to identify, assess, train and employ the future workforce
- > Strives to achieve economic uplift for members of our communities and region through careers in transportation



State of the Workforce

Metro needs a workforce to deliver our work programs to our customers efficiently, on time and under budget; including deliver safe and reliable public transit services

- > More than 28% of Metro’s current staff (over 3,000) is eligible for retirement and more than 50% may be eligible for retirement by 2024
- > Various “hard to fill” positions within Metro and the transportation industry have been identified as critical for the future workforce and industry



Overview

WIN-LA is a ground breaking program

- > Provides a strategy to meet critical workforce needs through succession planning, workforce development and career pathways
- > Creates career pathways into Metro and the transportation industry
- > Supports Metro’s pledge to being a learning organization that attracts, develops, motivates and retains a world-class workforce
- > Fosters our commitment of being a community partner as we build the future of public transportation for LA County



Program Partners

Partnerships are integral to the success of WIN-LA

- External Partners
 - > Employers: Private sector, Public sector, Design/Build construction contractors (Primes), small businesses and others
 - > Community colleges (County-wide)
 - > Community based organizations, supportive service providers, faith based partners and others
 - > Labor organizations/trades/work source centers, apprenticeship programs
- Internal Partners
 - > Metro’s Talent Acquisition; Operations; Program Management; Planning and other internal departments



WIN-LA Program Model



WIN-LA program model supports our effort to provide career pathways to members of our communities

WIN-LA Program Model



Look Ahead

- > Metro will formally launch WIN-LA June 2017 and develop the program over the course of the next 18 months
- > To become a partner register now at metro.net/winla



EDUCATION



RESEARCH
EDUCATION
OUTREACH

UNIVERSITY OF VERMONT
TRANSPORTATION RESEARCH CENTER

Transportation Education Development Pilot Program (TEDPP)

Executive Report

In 2008, the U.S. Department of Transportation awarded \$979,829 to the University of Vermont's Transportation Research Center (TRC) as part of a \$1.01 million Transportation Education Development Pilot Program (TEDPP). The following summary gives a brief description of the **four** programs of TEDPP, milestones and future planning. The four programs are: Transportation Systems Institute (TSI), Transportation Systems Academy (TSA), Second Careers in Transportation (SCT), and Community Colleges. A major goal of both the TSA and the SCT projects is to reach non-traditional labor pools (technical and alternative high school students, offenders, veterans and the disabled.) The following represents the major *milestones* for each program.

Transportation Systems Institute (TSI): Focuses on maintaining and motivating talent, and transferring knowledge in the DOT workforces in Vermont, New Hampshire, and Maine.

- The TRC partnered with the Technology Extension Division (TED) of Vermont Technical College (VTC) to attract new talent and retain current expertise within the DOTs.
- A needs assessment was conducted in VT, NH & ME Departments of Transportation which revealed a need for several trainings.
- Fifteen transportation employees (five from each state) were selected and successfully completed trainings including:
 - Leadership Styles & Workplace Principles
 - Systems & Organizational Change
 - Coaching & Feedback
 - Conflict Management & Problem-Solving
 - Managing & Optimizing Group Process
 - You Can't Do it Alone
 - Adult Learners, Mentoring, Meetings & Train the Trainer
 - Having Difficult Conversations
 - Trends & Topics in Transportation
 - Public & Government Relations
 - Government & Project Finance
 - Critical Thinking
 - Attitude, Motivation & Customer Service Skills
 - Technical Project Management
 - Ageism
- Instructors from the TED of VTC are committed to ongoing engagement with graduates of the program.
- **Positive** feedback was received from participants. Approximately **60%** of participants said that the Institute was **Excellent** and **40%** said it was **Very Good**.

Transportation Systems Academy (TSA): Provided hands-on training for students interested in transportation sector jobs at the Community High School of Vermont.

- The TSA successfully completed the first pilot round in Vermont with plans to conduct a second pilot in New Hampshire.
- Seventeen individuals successfully graduated from the TSA and as of October 2010:
 - Six have found gainful employment with the transportation industry or other occupations;
 - Four are seeking or have completed 40-hour internships with Vermont Agency of Transportation with possible future employment opportunities;
 - Seven are still finishing up educational courses or other requirements.
- All TSA Graduates will receive:
 - Steel-toed boots and an internship and/or job placement;

- *Support from Teachers and High/Tech School Guidance Counselors;*
- *Ongoing support through Vermont Association of Business, Industry and Rehabilitation (VABIR) Employment Specialists* in VT.*

** This service was designed specifically to help those who are disabled or need extra support.*

- The program successfully introduced 10 courses in an educational setting that allowed students to receive academic credit (ranging from one-half to one full credit), certification and/or certificates of completion.
- The program was received well and highly rated by graduates of the program:
 - 100% of the students rated the instructor's delivery and presentation of the TSA **positively**; 97% of them rated them **Excellent** or **Very Good**.
 - 99% of the students rated their overall impression of the TSA courses **positively**; 73% rated them as **Excellent**.
 - Graduates were asked, "Would you seriously consider a career in the field of transportation"? 80% **Strongly Agreed** and 20% **Agreed**.
- The TSA is preparing to launch its second pilot in New Hampshire. A proposal has been written, partnerships are being cultivated with the LTAP-NH, LTAP-VT, the TSI graduates, Associated General Contractors (AGC) and the NH Career in Technical Education (CTE).

Second Careers in Transportation (SCT): Focuses on attracting retirees from other industries to bring their skills to the 21st century challenges in transportation.

- The TRC partnered with AARP-VT to focus on attracting retirees to bring their skills from other industries to the 21st century challenges in transportation.
- The SCT program will:
 - Assess the workforce needs of the transportation industry in VT;
 - Provide older workers with transportation career awareness to show them how they can transfer their skills to professional and office support positions in the transportation sector.
- The TRC and the Center for Rural Studies at UVM are developing a needs assessment for the transportation sector.

Community Colleges: Working with the American Association of Community Colleges (AACC) information was collected about what community colleges are doing now and could do to prepare the next generation of transportation workers.

- The TRC worked with the American Association of Community Colleges (AACC) to provide for greater community college engagement in transportation workforce development efforts.
- Key Findings, Best Practices and Next Steps were generated.

In conclusion, the Transportation Research Center at UVM and its partners in the Transportation Education Development Pilot Project (TEDPP) are working together to improve and expand each of the **four** programs. Eventually, the programs will be released for use nationally. By doing so, we will provide the tool kit needed to plan for and overcome the critical shortage of transportation workers.

For more information, please visit our website at www.uvm.edu/trc/workforcedev or contact Donna Aguiar at donna.aguiar@uvm.edu, 802-656-0566.

The challenges of designing and maintaining a transportation system to meet the needs of the coming decades requires a skilled, motivated and sustainable workforce. TEDPP at the UVM TRC is addressing that challenge in Northern New England and creating lessons and resources to be used nationally.



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A CTS simulator gives students hands-on experience.

Nationally, 40 - 50% of the current transportation workforce is expected to retire in the next decade. In Vermont, New Hampshire and Maine, a similar trend is occurring. Fewer workers are gravitating to the field and there is intense competition from other industries for qualified workers at all levels. While transportation jobs are ubiquitous, they are also invisible, hidden throughout other industries or historically unnoticed by a population that assumes the transportation system will be there to meet their needs.

The University of Vermont Transportation Research Center and its partners in the Transportation Education Development Pilot Project (TEDPP) are working to address these key challenges through four demonstration programs. Operating from a 2008 U.S. Department of Transportation million dollar award to the UVM TRC, TEDPP is entering its fourth year. The four programs: Transportation Systems Institute (TSI); Transportation Systems Academy (TSA); Second Careers in Transportation (SCT); and Community Colleges are reaching non-traditional labor pools: technical and alternative high school students, corrections students, mature workers, veterans and New Americans. Over the next several years, TEDPP results will be released for use nationally. A toolkit promoting new career pathways and opportunities for specialized training in transportation systems is being developed. This will provide curriculum and program guidance to support replication of these efforts throughout Vermont and nationally.

In the past year, several key benchmarks have been met.

The TSA program for high school aged youth was successfully implemented through the Community High School of Vermont at Northern State Correctional Facility and the Canaan Career Center. Lessons learned are being applied to a replication toolkit and the Community High School will run two new programs this summer and incorporate them permanently into its curriculum. Leaders from both schools presented their results at the recent conference of the National Association for Workforce Improvement.

The TSI graduated 27 participants who returned to their roles at state transportation agencies in VT, NH and ME better prepared to manage in an increasingly uncertain environment of infrastructure, workforce and fiscal challenges.

The TRC has initiated work toward an agreement with Community College of Vermont and the Vermont State Colleges to embed core modules in transportation in various degree programs that would provide a career pathway for incoming students or a bridge option for second career workers seeking to enter the transportation workforce.



Students from Canaan Career Center experience a day in the life of a highway maintenance worker.

BUILDING CAREER PATHWAYS IN TRANSPORTATION

BUILDING CAREER PATHWAYS IN TRANSPORTATION

Transportation Systems Institute (TSI)

TSI is working with VT, ME and NH DOT employees on maintaining, motivating, and transferring knowledge within the state DOT workforces. The TRC partnered with the Technology Extension Division (TED) of Vermont Technical College (VTC) to attract new talent and retain current expertise within the state DOTs. An assessment was conducted in VT, NH & ME Departments of Transportation which revealed a need for several training programs.

In 2010, 15 transportation employees (five from each state) were selected and successfully completed the program. In 2011 an additional 12 agency employees were nominated and completed the program. Training included:

- Trends & Topics in Transportation
- Public & Government Relations
- Government & Project Finance
- Systems & Organizational Change
- Managing & Optimizing Group Process
- Leadership Styles & Workplace Principles
- Technical Project Management
- Conflict Management & Problem-Solving
- Attitude, Motivation & Customer Service Skills
- Coaching & Feedback

Positive feedback was received from all participants. **100% of supervisors noted an increase in knowledge and skill base.** All but one supervisor indicated that they would support other managers to participate. Most supervisors indicated an interest in participating themselves.

At strategic sessions, participants were brought together to create and build a tri-state network for resource sharing and learning. The program will be supported in the final year of the program.

Participants from each of the states above selected a project. In Vermont this included human resource development initiatives that seek solutions for burn-out prevention for leadership at all levels; worker retention strategies; increased support for employees; meaningful recognition of good work; and planning for strategic investments in training.



TSI Graduation Class of 2011

Transportation Systems Academy (TSA)

TSA provided hands-on training for students interested in transportation sector employment at the Community High School of Vermont and the Canaan Career Center and built a model for replication at high schools throughout the state.



VT train Design and Resident Engineer, Gilbert Vachon, P.E. instructs class.

The first successful TSA at the Northern State Correctional Facility in Newport with the Community High School of Vermont (CHSVt) resulted in CHSVt adopting the program into their curriculum and launching new academies this summer in Newport and Rutland.

The Career Center in Canaan implemented the program for 18 students from Vermont and New Hampshire. Based on this experience, the TRC is building a toolkit for other high schools to adopt a TSA program.

Six of the TSA graduates from Newport have found gainful employment with the transportation industry or other occupations; four are seeking or have completed 40 hour internships with the Vermont Agency of Transportation with possible future employment opportunities; and seven are currently completing educational courses or other requirements.

The program successfully introduced 10 courses in an educational setting that allow students to receive academic credit (ranging from one-half to one full credit), certification and/or certificates of completion.

The program was highly rated by graduates of the program and school administrators.

Second Careers in Transportation (SCT)

SCT focuses on attracting retirees from other industries and mature workers who are seeking a second career by designing support structures to transfer their skills to the 21st century challenges in transportation.

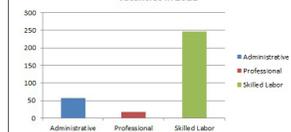
TRC has partnered with AARP-VT and Vermont Associates in Training and Development to advance this agenda. **The project is looking to encompass mature, displaced, and non-traditional workers, including veterans and New Americans.**

The SCT program is assessing the public and private sector workforce needs of the transportation industry in VT, NH and ME. The mission of the program is to provide mature workers with transportation career awareness, demonstrate how they can transfer their skills to professional and office support positions within the transportation sector, and offers specific career pathways, credentialing and training programs to make the transition from one field to another.

Survey work by the Center for Rural Studies at UVM provided an overview of current and anticipated workforce needs for state, municipal and private sector transportation employers in Vermont, demonstrating that employment opportunities at the professional and skilled levels continue to be strong throughout communities around the state.

A new partnership between the Community High School of Vermont and Vermont Associates for Training and Development has created a multi-generational learning environment with creative opportunities for mentoring. The anticipated outcome is a diverse set of options from high school courses to post graduate certificates for individuals working to build a professional skill base for entry-level or next-step employment in transportation systems.

Total # of Anticipated Transportation Job Vacancies in 2011



Community Colleges

Community College participation and endorsement will be integral to the success of a National Transportation Workforce Development Strategy

Working with the American Association of Community Colleges (AACCC), information was collected on what community colleges are currently teaching and what they could do to provide for greater engagement in transportation workforce development efforts.

Research results suggest that a solid foundation exists within community colleges to deliver transportation-related training, but that additional investment and coordination will be necessary to support future workforce needs. The final report addresses best practices for community colleges looking to increase their transportation programs and recommendations for how the USDOT can best stimulate and support the evolution of community colleges as a key pillar in transportation workforce development.

The TRC has initiated an agreement with Community College of Vermont and the Vermont State Colleges to embed core educational modules on transportation in various degree programs to provide both a **career pathway to specific transportation jobs** for incoming students as well as a bridge option for second career workers looking to transfer skills to the field.

Incumbent transportation workers seeking new opportunity will also be able to benefit from the programs to establish new credentials. The Community College partnership offers the opportunity to coordinate efforts from high school programs through college and graduate level studies and continuing educational opportunities for workers to enter and excel in the field of transportation.



Vermont Transportation Industry Fact Sheet

Building, Maintaining and Operating Vermont's Transportation System

Nationally, 40 - 50% of the current transportation workforce is expected to reach retirement age in the next decade. The aging workforce is an even greater problem in Vermont, as it is the second oldest and second least populous state. Joining the Vermont transportation workforce helps Vermont maintain sustainability and competitiveness while promising a lifelong career.

Every entry-level position in transportation is a foot-in-the-door to a high-needs, high-growth industry that provides education and career advancement opportunities.

The Transportation Industry and Disaster Recovery: Tropical Storm Irene

Tropical Storm Irene devastated Vermont's transportation infrastructure, resulting in damages with an estimated \$250 million in repair costs. Never has it been so clear how important the jobs are that get our cars, trucks, buses, trains and ferries back on track as in the aftermath of Tropical Storm Irene. "Irene will be around for us for years." Brian Searles, Secretary of Vermont Agency of Transportation (VTrans) remarked. Bridges of concern need to be inspected, roads need to be prepared for winter travel and the environmental impact of sediment that dragged from the Connecticut River into Long Island Sound has future implications. Current estimates for repairs from the storm are at \$250 million.





Move forward today

with a job in a sector that has everyday impact on the lives of Americans and in the efficiency of our economy. The transportation industry provides an opportunity for you to help build sustainable communities and tackle issues such as climate change and energy use. Today more than ever before, there are great economic opportunities and challenges to meet the mobility needs of Americans and American industry.

In the 21st century, the transportation industry will need workers with a complex set of skills, including:

- Project/Program Management
- Public/Stakeholder Relations
- Capital Asset Maintenance
- Leadership & Ethics
- Design & Construction
- Real Estate

There are many pathways that will help you join the transportation workforce. Numerous job opportunities can be found in federal, state, and local government as well as the nonprofit and private sectors. You have an opportunity to be part of a groundbreaking effort to improve mobility and access for all Americans, advance a more robust economy and make a difference improving our environment. Get Moving!



TRANSPORTATION RESEARCH CENTER

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TRANSPORTATION CEO SERIES

Brought to you by the Southeast Transportation Workforce Center (SETWC)



Laurie Matkowski

SETWC is thrilled to announce the **February CEO Series** event for the students of the **T-STEM Academy at East High!**

Join us each month as we host a leader in the transportation industry who will share:

- Details of their diverse and exciting career paths
- Examples of many types of transportation-related companies and job opportunities
- Insight regarding skills and education that are required to be successful
- Advice for how you can achieve your goals!

Our February speaker is Laurie Matkowski. Laurie is the Connected and Automated Vehicle (CAV) Services Director for Gannett Fleming. Spanning an over 20 year career in both public and private sectors in planning and engineering, she has a Civil Engineering degree from Clemson University. Laurie is considered a Subject Matter Expert on strategic planning for future technologies in the transportation industry, including CAV, Automated Driving Systems (ADS) readiness, Transportation Systems Management and Operations (TSMO), traffic and transportation engineering, planning, multimodal connections, Mobility-as-a-Service (MaaS), Smart Cities/Communities, Intelligent Transportation Systems (ITS), and Traffic Incident Management (TIM). Join us as Ms. Matkowski discusses exciting career opportunities in transportation!

Come prepared to listen, learn, and ask questions!!!

For more info: memphis.edu/setwc



Southeast Transportation
Workforce Center



TRANSPORTATION YOUTH ACADEMY

The Transportation Youth Academy (TYA) is a K12 career pathway program designed for youth to explore the enormous, dynamic transportation industry and participate in real-world transportation projects. The overall intent of the program is to increase students' awareness and understanding of the transportation industry and the multitude of career opportunities available, ensure students gain fundamental career-technical and teamwork skills, and increase matriculation into college CTE programs. Academy activities and projects incorporate engaging videos, content, and "hands-on" activities.

Here's what past students indicate they are doing because of participating in TYA:

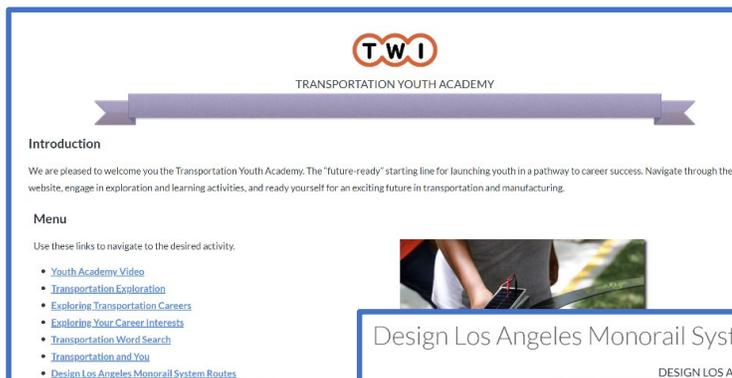
- 94% know more about jobs that exist in the transportation industry
- 82% think a career in the transportation industry is more appealing
- 79% are considering a career in the transportation industry

Program Features for Students

- Engaging Materials, Videos, and Activities
- Hands-on Activities
- Group Projects
- Exploration of Wide-range of Careers
- Increased Self-Understanding and Reflection of Career Goals and Choices
- Career Awareness

Program Features for Colleges

- Ready-to-use, Modularized Curriculum
- Flexible – Can be Offered as Noncredit, Credit, Other
- Modules Can be Picked/Organized Based on College Goals/Timeframes/Facilities
- Instructor Guides
- Pre-Built, K12 CTE Pathway for Dual Enrollment and/or Summer/Out-of-School Academies
- Range of Topics/Fields including STEM, Business, GIS, Manufacturing, Automotive, and more
- CTE Lab Space not Necessary



The screenshot shows the homepage of the Transportation Youth Academy. At the top is the TWI logo and the text "TRANSPORTATION YOUTH ACADEMY". Below is an "Introduction" section with a welcome message. A "Menu" section lists several links: Youth Academy Video, Transportation Exploration, Exploring Transportation Careers, Exploring Your Career Interests, Transportation Word Search, Transportation and You, and Design Los Angeles Monorail System Routes. A small image of a person using a laptop is also visible.



The screenshot shows a project page titled "Design Los Angeles Monorail System Routes". It includes a "Documents to download" section with links to "Project Guide - Design Los Angeles Monorail System Routes" and "Transportation Outlook to 2040". A "Description" section explains the project goal: to research and recommend potential routes for a new monorail system in Los Angeles. Below the text is a video player showing a 3D rendering of a monorail train in a station.

TRANSPORTATION WORKFORCE READINESS

Los Angeles Trade Technical College



Transportation
Workforce
Institute

Course Overview

Transportation Workforce Readiness

Overview

This program covers the fundamentals of the transportation/transit industry, hardest-to-fill occupations, and common employability and industry-wide competencies at the foundational level. It includes basic information on these topics, as well as guided, hands-on exercises to reinforce learning outcomes and assess competency levels. The course also includes a simulation-based module for individuals to learn and demonstrate competencies gained in real-work context(s). The course is designed as an instructor-led course, consisting of 32 hours of coursework and activities; an 8-hour, simulation-based module; for a total of 40 hours over 5 days.

I. Learning Outcomes and Objectives

Learning Outcomes

- Participants will understand the transportation/transit industries and career pathways, inclusive of hardest-to-fill occupations
- Participants will make informed choices about pursuing specific occupation(s) in the transportation/transit industry
- Participants will demonstrate basic knowledge of common employability and industry-wide competencies in the transportation/transit industry
- Participants will demonstrate specific common employability and industry-wide competencies

Learning Objectives

Upon completion of the course, participants will be able to:

- Describe the transportation/transit industry, overall, and in LA County including: modes; components; use; challenges: benefits; providers, services, management (including governance, transit agency functions, unions); and intelligent transportation systems
- Identify basic job duties and typical eligibility requirements of career pathways, inclusive of hardest-to-fill occupations, in the transit industry
- Describe common employability and industry-wide competencies in transportation/transit industry
- Use common career planning resources and tools to develop a personal career plan
- Describe, self-assess, and/or demonstrate fundamental personal, people, and workplace skills including:
 - a. Integrity
 - b. Initiative
 - c. Dependability and Reliability
 - d. Adaptability
 - e. Professionalism
 - f. Teamwork
 - g. Communication
 - h. Respect
 - i. Customer Focus
 - j. Technology Skills
 - k. Decision Making

- Select and properly use basic hand and power tools
- Locate information in documents using legends, forms, maps, icons, and other graphics
- Successfully complete an online form using common computing equipment and technology (e.g., CPU, monitor, keyboard, mouse, internet)
- Describe the importance of safety in the transportation/transit industry and identify common safety issues and employees' safety responsibilities
- Identify barriers to and employees' behaviors that support diversity, equity, and inclusion in the workplace
- Demonstrate fundamental level of employment wellness
- Make informed decisions/choices about transportation career(s)

Course Information

TRAINING AIDS AND EQUIPMENT:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Computer | <input checked="" type="checkbox"/> Computer lab |
| <input checked="" type="checkbox"/> PowerPoint presentations | <input checked="" type="checkbox"/> Personal safety equipment |
| <input checked="" type="checkbox"/> AV equipment for PowerPoint presentations | <input checked="" type="checkbox"/> Vehicle Keys |
| <input checked="" type="checkbox"/> Sound equipment for showing videos embedded in PowerPoint presentations | <input checked="" type="checkbox"/> Safety vests |
| <input checked="" type="checkbox"/> Wifi/internet access | <input checked="" type="checkbox"/> Set of maintenance tools |
| | <input checked="" type="checkbox"/> Laboratory/shop equipment as determined by activity |

HANDOUTS:

- Exercise Handouts
- Participant Handouts

PARTICIPANT EVALUATION METHODS:

- Quizzes
- Instructor Observation Checklists/Rubrics

Transportation Workforce Readiness Competencies

Knowledge, Skills, and Abilities

1.1 Personal Skills

1.1a Integrity

- Recognizes the characteristics of a person who demonstrates integrity in the workplace (someone who treats others with honesty, fairness, and respect; demonstrates respect for company's time and property; accepts responsibility for one's decisions and actions) (Module 02)
- Is aware of the importance of integrity in the workplace (Module 02)
- Demonstrates respect for instructors' and co-students' time and college property (entire course)

1.1b Initiative

- Recognizes the characteristics of a person who demonstrates initiative in the workplace (someone who is willing to work and seek out new work challenges; takes initiative in seeking out new responsibilities and work challenges; increases the variety and scope of one's job; pursues work with energy, drive, and effort to accomplish tasks; establishes and maintains personally challenging, but realistic, goals; strives to exceed standards and expectations) (Module 02)
- Is aware of the importance of having initiative in the workplace (Module 02)
- Demonstrates a willingness to complete course activities, assignment (entire course)
- Describes the difference between routine duties / responsibilities and exceeding expectations (Module 04)
- Describes the characteristics of an enthusiast's response (Module 04)
- Lists key considerations and techniques for career persistence (Module 04)

1.1c Dependability and Reliability

- Recognizes the characteristics of a person who demonstrates dependability in the workplace (someone who displays responsible behaviors at work; behaves consistently, predictably, and reliably; fulfills obligations, completes assignments, and meets deadlines; follows written and verbal directions; complies with organizations' rules, policies, and procedures; demonstrates regular and punctual attendance) (Module 02)
- Is aware of the importance of being dependable and reliable in the workplace (Module 02)
- Completes assignments (entire course)
- Follows written and verbal directions (entire course)
- Complies with college/classroom rules, policies, and procedures (entire course)
 - Does not use cell phones, personal computers, or other electronic devices in class without direct instruction to do so
 - Asks questions and notified instructor(s) if something does not make sense
 - Respects instructors and co-participants
 - Was courteous at all times
 - Contributes to group discussions
 - Participates in all activities
 - Helps others learn
 - Does not interrupt or speak over/while others were talking
 - Uses/complies with the five-minute rule: If a group conversation is not adding value after 5 minutes, it should be noted and tabled for further discussion later
- Demonstrates regular and punctual attendance (entire course)
 - Arrived on time and returned to the room promptly after breaks
- List 3 examples of what it means to be dependable and reliable in the workplace (Module 04)

1.1d Adaptability

- Recognizes the characteristics of a person who demonstrates adaptability in the workplace (someone who displays the capability to adapt to new, different, or changing requirements; is open to learning and considering new ways of doing things; actively seeks out and carefully considers the merits of new approaches; embraces new approaches when appropriate and discards approaches that are no longer working; effectively changes plans, goals, actions, or priorities to deal with changing situations) (Module 02)
- Is aware of the importance of being adaptable in the workplace (Module 02)
- Demonstrates openness to learning and considering new knowledge/ways of doing things (entire course)
- Adapts to new, different, or changing requirements (entire course)
- Describes the importance of adaptability in the workplace (Module 04)

1.1e Professionalism

- Recognizes the characteristics of a person who demonstrates professionalism in the workplace (someone who maintains a professional demeanor at work; demonstrates self-control by maintaining composure and keeping emotions in check, even in difficult situations; maintains a professional appearance by dressing appropriately for the job and maintaining personal hygiene; uses professional language when speaking with supervisors/college personnel, co-workers, and others; maintains a positive attitude; takes ownership of one's work) (Module 02)
- Is aware of the importance of having professionalism in the workplace (Module 02)
- Demonstrates a positive attitude (entire course)
- Demonstrates a professional demeanor (entire course)
- Demonstrates self-control by maintaining composure and keeping emotions in check (entire course)

- Takes ownership of work/tasks (entire course)
- Describes 3 techniques for calming jitters (Module 04)
- Describes 3 techniques for de-escalating difficult situations (Module 04)
- Describes what “being in the there” means and methods (Module 04)

1.2 People Skills

1.2a Teamwork

- Recognizes the characteristics of a person who demonstrates teamwork in the workplace (someone who works effectively with others; establishes a high degree of trust and credibility with others; interacts professionally and respectfully with supervisors and co-workers; develops constructive working relationships and maintains them over time; uses appropriate strategies and solutions for dealing with conflicts and differences to maintain a smooth workflow) (Module 02)
- Is aware of the importance of being a good team player in the workplace (Module 02)
- Contributes to group discussions (entire course)
- Uses/complies with the five-minute rule: If a group conversation is not adding value after 5 minutes, it should be noted and tabled for further discussion later (entire course)
- Demonstrates constructive working relationships in group/partner activities (entire course)
- Describes 3 ways to become a more effective team player (Module 04)

1.2b Communication

- Recognizes the characteristics of a person who demonstrates effective communication in the workplace (someone who maintains open lines of communication with others; demonstrates sensitivity and empathy; listens to and consider others’ viewpoints; recognizes and interprets verbal and nonverbal behavior of others; speaks clearly, in precise language and in a logical, organized, and coherent manner) (Module 02)
- Is aware of the importance of effective communication in the workplace (Module 02)
- Listens while others were speaking (entire course)
- Considers other viewpoints that were presented and/or discussed (entire course)
- Describes active listening techniques (Module 04)
- Lists 3 non-verbal communication behaviors that convey active listening (Module 04)

1.2c Respect

- Recognizes the characteristics of a person who demonstrates respect in the workplace (someone who works effectively with those who have diverse backgrounds; demonstrates sensitivity and respect for the opinions, perspectives, customs, and individual differences of others; is flexible and open-minded when dealing with a wide range of people; values diversity of approaches and ideas) (Module 02)
- Is aware of the importance of being respectful in the workplace (Module 02)
- Identifies the terms diversity, culture, equity, and inclusiveness (Modules 06)
- Describes how diversity applies to intergenerational differences (Module 06)
- Identifies barriers to diversity (Module 06)
- Identifies ways to support diversity, equity, and inclusivity (Module 06)
- Describes how inclusivity applies to LBGT+ (Module 06)
- Describes why diversity, equity, and inclusion is important in public transportation agencies (Module 06)

1.2d Customer focus

- Recognizes the characteristics of a person who has customer focus in the workplace (someone who actively looks for ways to identify market demands and meet customer or client needs; understands and anticipates customer needs; provides personalized service with prompt and efficient responses to meet the requirements, requests, and concerns of customers or clients; is pleasant, courteous, and professional when dealing with internal and external customers or clients; evaluates customer or client satisfaction) (Module 02)
- Is aware of the importance of having a customer focus in the workplace (Module 02)
- Role plays “good” and “bad” customer service (Module 04)
- Describes proactive responses of a customer-focused employee (Module 04)

1.3 Applied Knowledge

Technology

- See 1.5a Technology (Module 06)

1.4 Workplace Skills

1.4c Decision making

- Recognizes the characteristics of a person who engages in decision making in the workplace (someone who applies critical thinking skills to solve problems encountered in the workplace; identifies and prioritizes key issues involved to facilitate the decision-making process; anticipates consequences of decisions; involves people appropriately in decisions that may impact them; quickly responds with a back-up plan if a decision goes amiss) (Module 02)
- Is aware of the importance of decision making in the workplace (Module 02)

1.5 Working with Tools and Technology

1.5a Selects, uses, maintains tools/technology to facilitate work activity

- Tools
 - Lists, identifies commonly used hand and power tools (Module 06)
 - Selects tools appropriate for a given task (Module 06)
 - Understands common operating procedures and safety standards for tool use (Module 06)
- Technology
 - Names common workplace technologies that are used on a daily basis (Module 06)
 - Names essential technology skills everyone is expected to have in the workplace (Module 06)
 - Identifies common technology terms (Module 06)
 - Navigates the Internet to locate information; opens hypertext references and transfer protocols (enter URLs) (Module 06)
 - Completes and submits an online form using multiple entry formats (text, check-boxes, radio buttons, sliders, drop-down menus, etc. (note: this outcome also relates to the competency of: Checking, Examining, & Recording) (Module 06)
 - Self-assesses one's own technology skills and select 2 (if needed) to learn or develop (Module 06)

1.6 Realistic View of Industry

1.6a Understands demands and nature of work in the industry

- Identifies modes of the U.S. transportation system (Module 01)
- Lists components that make up transportation systems (Module 01)
- Describes key characteristics of public transportation (Module 01)
- Lists public transportation modes (Module 01)
- Describes the LA County transportation network, it's modes, providers, ridership, services (Module 01)
- Describes challenges impacting public transportation (Module 01)
- Describes benefits of public transportation (Module 01)
- Describes key elements of public transportation management: governance, funding, operational areas, functions, unions (Module 01)
- Describes Intelligent Transportation Systems (ITS) and provides examples of their purpose, use, solutions (Module 01)
- Lists a range of occupations available in the public transportation/transit industry (Module 02)
- Describes the nature of work (work values, salary, typical tasks/requirements, safety-sensitivity, etc.) for occupations in the public transportation/transit industry (Module 02)
- Lists characteristics of hardest-to-fill transit occupations (Module 02)
- Describes common employability/industry-wide competencies (Module 02)
- Reflects on personal work values, interests, competencies for determining career choices (Module 02, Module 07)
- Identifies common career planning resources and tools to develop a personal career plan (Module 02, Module 07)
- Has a more, realistic view of what working in the transportation industry is like (Module 02, Module 07)
- Has greater appreciation for the role public transportation plays in the community (Module 02)
- Is more informed about making the "right" decision to pursue a career in the transportation industry (or not) (entire course)

1.7 Checking, Examining, and Recording Skills

1.7a Completing forms

- Provides reasons for the importance of complete and correct information in public transportation (Module 06)
- Describes why being to locate, interpret, and use information contained in graphics is important (Module 06)
- Describes types of graphics typically used in the transportation workplace (Module 06)
- Identifies typical methods for locating information in documents (Module 06)
- Lists and uses common methods for ensuring documents have complete and correct information (Module 06)

1.8 General Safety

1.8a General safety

- Describes why safety is the top priority in public transportation/transit (Module 05)
- Names the state agency that protects public workers in California (Module 05)
- Lists common regulations that protect all workers, transportation workers, and workers in public transportation/transit (Module 05)
- Identifies responsibilities of employers for workplace safety (Module 05)
- Identifies responsibilities of employees for workplace safety (Module 05)
- Lists most common workplace accidents (Module 05)
- Identifies common causes of workplace accidents (Module 05)
- Describes what safety-sensitive positions is and what it means for workers in safety-sensitive positions (Module 05)

1.8a Personal and shop safety

- Demonstrates safety procedures when lab exercises in shop/field settings

TRANSPORTATION WORKFORCE READINESS PROGRAM

The LA County transportation network is comprised of many large, municipal agencies (including LA Metro, the 3rd largest transit agency in the U.S.) with numerous occupations and career pathways that pay family-sustaining, living wages with benefits and retirement. Collectively, these agencies employ over 8,000 individuals, of which, 50-65% are at or reaching retirement age. They are also experiencing job growth due to expanded routes and services and large transportation projects including those made possible by Measure M (passed in November 2016) that indefinitely generates roughly \$860 million a year for major transportation projects. However, these agencies have a small number of occupations that serve as entry points, limited recruitment/hiring periods, and confusing and sometimes lengthy employment processes.

To address these and other workforce challenges, Workforce Initiative Now-Los Angeles (WIN-LA) was launched. WIN-LA is an inter-agency, regional workforce development collaboration creating a career pathway approach with streamlined, coordinated outreach/recruitment, education/training, and placement/employment systems and processes. The Transportation Workforce Readiness (TWR) program was designed as an integral component of WIN-LA to address the employment challenges for both the transportation network and college program completers. TWR and the streamlined, coordinated approach has been piloted twice and is now ready to scale to additional employers, community partners, and colleges.

TWR Program Features for Students

- Direct path to job placement for:
 - students completing CTE certificates and degrees
 - students completing short-term TWR program
- Increased career readiness competencies – applicable to any career and employer

TWR Program Features for Colleges

- Ready-to-use, modularized curriculum
- Flexible – can be offered as noncredit, credit, other
- CTE lab space not necessary – any college can offer this CTE program with little to no resources
- Access to large LA County transportation industry network
- Direct connection to employers who are recruiting for occupations paying living wages
- Access to student recruitment/screening network

TWR Program Features for Employers

- Trained workforce from an education program recognized and assessed by the industry
- Pre-screened pool of diverse candidates deemed “work-ready” and meet minimum entry-requirements
- Expedited vacancy-fill/employment-placement

Introduction Infrastructure Careers –

Gateway to Opportunity

Pilot Program Overview

IYAI+'s **Introduction to Infrastructure Careers – Gateway to Opportunity** summer high school pilot program for 11th and 12th graders was conducted over a 6-week period, Monday-Friday (June 24 – August 2, 2019) in partnership with the **Cardozo TransSTEM Academy**, Cardozo Education Campus, District of Columbia Public Schools, its Platinum Sponsor, **the American Public Transportation Association (APTA)**; and over forty-plus contributors, including representatives from a broad cross section of our national critical infrastructure sectors, i.e., transport, water, energy, telecommunications, advanced manufacturing, information technology; in addition to important non-profit and community-based participation. The Academy is nationally recognized in the transportation sector for its trailblazing work in STEM education at the high school level. Total student enrollment at the Cardozo Education Campus is approximately 800; *53% of the students are Black; 43% of the Students are Hispanic; and 100% are from low-income households.*

Major Program Objectives: (1) address the high-risk, next generation workforce development challenges facing our nation's critical infrastructure sectors – with specific emphasis on *significantly increasing the participation of historically under-represented groups – people of color and women*; (2) help *inspire, and motivate* youth to have an interest in the critical infrastructure sectors – *careers* (jobs and business opportunities), *decision-making, and advocacy* -- by exposing them to the impact of critical infrastructure on their personal lives, community, and society; and (3) *actively engage* our youth in applying their classroom, broader industry exposure, and "learned experience" to "*Tell Their Story*"—giving voice to their personal experience; and, stimulating them to better understand the connection between quality infrastructure facilities and services, important community and societal *values and outcomes* -- "*community-building*".

Multi-sectoral, highly interactive, and community-focused, this uniquely crafted program was designed to go beyond the traditional STEAM/STEM classroom experience. Working with **Industry Sector Coordinators** from *APTA, the Congressional Black Caucus Foundation, DC Department of Transportation, DC Water, DC Energy & Environment, DC Sustainable Energy Utility (DCSEU), Energy and Environment Consulting, HDR, HNTB, the International Association of Machinists and Aerospace Workers (IAMAW)*, the Program included exposure to a broad range of important and exciting infrastructure careers -- including informative offsite tours and classroom instruction, interaction with dynamic working professionals; exposure to important career and life skills, attitudes, and expectations that will

positively impact their futures; as well as an opportunity to earn a summer stipend upon successful completion of the Program.

At IYAI+, we believe that reframing the image and narrative around infrastructure careers to one of “**community-building**” is important to motivating increased interest in infrastructure careers (particularly in the case of historically under-represented groups). And, as importantly, help our youth to develop a lifetime appreciation of “why” infrastructure availability, access and quality is critical to achieving important community and societal values and outcomes. Our “**My Beloved Community**” transformative justice initiative developed in collaboration with the **Charles Hamilton Houston Institute for Race & Justice, Harvard University Law School** which requires students to apply their class and learned experience to “**Tell Their Story**” regarding the impact of critical infrastructure to their personal lives, community, and society is one way that we help students to “see” this important connection.

Finally, while each of the critical infrastructure sectors are vitally important in their own right, there are important interdependencies and cross-sectoral themes that were highlighted throughout the 6-week program.

- **Career Preparation** – transferable education, skills and experience; the impact of new technologies (SMART infrastructure); importance of “continuous” learning; life success skills;
- **Safety & Emergency Preparedness;**
- “**Tech-Readiness and Savvy**”, i.e., BIG Data, Advanced Manufacturing/Robotics, Cyber Security;
- The Connection of Infrastructure to “**Community Building**” and important **Values and Outcomes**, i.e., *inclusivity, environmental sustainability & resilience, shared prosperity.*

The following provides an Overview of the six-week pilot Program.

Program Activities

➤ Week #1 (6/24-6/28)

- Student Onboarding – Cardozo TransSTEM Academy
- Student Orientation
- **WELCOME – IYAI+**, Dr. Bev Scott, Founder; **Cardozo TransSTEM Academy**, Cheryl Rodgers, Director
- **Transportation Learning Center**, Jack Clark, Executive Director ... *Changes to and Careers in the Critical Infrastructure Sectors;*
- **International Association of Machinists and Aerospace Workers**, Jim Reid, Director Apprenticeships, CREST, Safety and Health ... *Changes to and Careers in Advanced Manufacturing*
- Bev Scott.....
 - Summer Infrastructure Program Overview and Objectives;

- **Dream BIG** video, courtesy of the **American Society of Civil Engineers (ASCE)**
- *My Beloved Community: Student Infrastructure Project Introduction*
- **Lunch and Learn, HNTB, “Young Professionals”**
- **“My Beloved Community”** Project Introduction and Work Session, **Charles Hamilton Houston Institute for Race & Justice, Harvard Law School, David J. Harris**, Managing Director (**“My Beloved Streets”** - Melvin King video and transformative justice project) and **Bob Glover**, “My Beloved Community” Student Work Session (onsite), Project Advisor. Overview re: the practical aspects of selecting a topic (the story/narrative – its importance), presentation considerations and techniques, editing/editing software introduction.

➤ **Week #2 (7/1-7/5)**

- Student Completion of Onboarding Tasks---Final Checklist of Deliverables
- **NoMa Parks Foundation Tour, HNTB-sponsored** (HNTB Coordinator, Cherie Gibson, Mid-Atlantic Communications Director) - focus on green space, placemaking, land use, sustainability, art, community engagement and civic participation @ the following locations: 150 L Street NE; M Street Underpass; Swampoodle Park – 225 L Street NE (including a dog park and playground).
- **Field Work Session: Community Infrastructure Review & Assessment** (Class Small Group Teams)
- **Student Results/Presentations re: Community Infrastructure Review** (Community Infrastructure Review)

➤ **Week #3 (7/8-7/12) ---Transportation Sector**

- **American Public Transportation (APTA)** “Introduction to Transportation Sector Careers” coordinated by Pam Boswell and Jasmine Richmond ... **Welcome by APTA Secretary-Treasurer and Chair, Conference of Minority Transportation Officials (COMTO)**, Freddie Fuller, II, Vice President, Electronic Fare Payment Systems, **JACOBS**; opening presentations by **Maryland DOT** (operations and maintenance), **WSP** (planning, alternatives analysis & community participation, environmental justice considerations), **Project Easter Seals** (mobility management, ADA and universal access), **Alexandria Virginia/Transit Bureau** (Amazon – economic development, capital program delivery)
- **AMTRAK Ivy City Maintenance Facility Tour** (Coordinator - Lakeisha Johnson)
- **Washington Metropolitan Area Transit Authority (WMATA), Carmen E. Turner Training & Maintenance Facility; Operations Control Center Overview** (Coordinators – LaRisa Alexander (WMATA); Polly Hanson (APTA))
- Presentations and Discussions ... *A Sustainable Future; Mobility Management; Get on Board*
- **Congressional Briefings and Capitol Hill Tour** (Rayburn House Office Building), including Student Mock Policy Review

➤ **Week #4 (7/15/7/19) ---Water Sector**

- Industry Week coordinated by **DC Water** (Torrie Epperson), **Congressional Black Caucus Foundation** (Dr. Afia Zakiya, Senior Fellow), and **Energy and Environment Consulting** (Drew Lehman)
- **DC Water** sponsored *Infrastructure Mapping and Walking Tour* at two (2) sites: **Bryant Street Pumping Station** and **Howard University Campus**
- **Welcome and Meeting with Congressional Representative Eleanor Holmes Norton** (Congressional representative for the students)
- **“Meet the Professionals” onsite** at the **National Society of Black Engineers, Water Environment Federation (WEF); and Covanta Alexandria Waste to Energy Facility**
- **DC Water** sponsored tours of *the world’s largest advanced wastewater operation Blue Plains Advanced Wastewater Treatment Plant;* and **DC Water Headquarters**
- Presentation by **APTA President, Paul Skoutelas**
- **“Meet the Operators”, Kevin Jhingory and Sewer Services Crew** - Catch Basin lesson and cleaning
- **“Community Impacts Case Study”: Mount Bethel Baptist Church, Rev. Bobby Livingston**
- **“Speed Mentoring”** (15-minute rotations): Meet and interact with practicing professionals in groups of 4-6 students; Networking, Job Searching, Scholarship Hunting

➤ **Week #5 (7/22-7/26) ---Energy/Power Week**

- **DC Sustainable Energy Utility (DCSEU)** – Taryor Tingba (Coordinator), *Career Opportunities in The Energy Efficiency and Sustainability Sector (i.e., solar and renewable energy; “green jobs” in the District of Columbia; Energy Efficiency 101; the Value of an Engineering Degree)*
- **DC Department of Energy & Environment (DOEE)** – Lolita Perry (Coordinator), *Career Opportunities in Energy Production and Distribution Sector*
- **HDR Engineering**, (HDR Coordinator – Jennifer Dustin, Transit Marketing Lead), *Career Opportunities in Communications and Cyber Security Sectors*
- **DC Department of Transportation/HNTB** sponsored tour of the **Frederick Douglass Memorial Bridge/South Capitol Street Corridor** construction site which is the largest infrastructure project in the District’s history (grand gateway from Maryland into DC) – specific focus on major capital project implementation careers, i.e., workplace safety, project/contract management, construction careers
- **HDR, the DC Streetcar, Freight Rail; ATST and the Future of Transit Vehicles; Sustainability, Economics and Infrastructure** (Maggie Adams, Roshe Copeland Volcy, Dallas DeFord)
- **“My Beloved Community”**---video editing class session with Bob Glover.

➤ **Week #6 (7/29-8/2) ---Final Program Week**

- Presentation by **CENTURY LINK**, Kathryn Condello, Senior Director, National Security / Emergency Preparedness, *Careers in the Communication Sector; Cyber Security Perspectives*
- Student Preparation for formal **Presentations re: Summer Program Experience** (15-minutes)
- **Genfare, Eric Kaled, President** on the Importance of Public Transportation -- *Overall Quality of Life; 21st Century Trends/Challenges & Opportunities; Transport Careers; and, Tech-Readiness; and Christina Belmont*
- **Student Program Presentations** including three elements: (a) Personal Profile; (b) Major Summer Program Take-Aways; (c) "My Beloved Community" Personal Story - Guest Evaluators
- **Student Six- Week Program Evaluation Survey** (anonymous)
- **Student Program Graduation**



Global Kids

Transportation Career Mentoring | Transit Tech High School CTE

• Academic Guidance • Professional Networking • Personal Development • Career Advice

Key Dates:

October 31: Mentorship application goes live
November 16: Application deadline
December 21: Matches are announced
January 24: Training for mentors
January 31: Kick-off celebration
February 7: First mentoring session
July 8: Launch of summer internship program
July 26: Implementation of community service project
August 16: Year-end celebration

**Program dates are subject to change*

Highlights:

- Develop a mentoring program for 10 seniors attending Transit Tech CTE High School
- 8-month commitment with expectations of monthly meetings
- Develop and organize a community service project in July 2019
- Help organize field trips to MTA and DOT sites
- Intentional matching

FOR MORE INFO:

Visit our office on the 4th floor at Transit Tech High School or contact us at info@globalkids.org.



San Francisco Bay Area Rapid Transit

How to Apply Online

1. Go to: www.bart.gov/training
2. You are now on the Careers Home Screen. Click 'Apply' next to Transit Career Ladders Training Program, Job ID #6341.
3. The next step is to sign in. **New BART Applicants:** If you are registering for the first time, click the 'Register Now' link to set up a Username and Password. Upon completion, click 'Register' and you will be taken directly into the application.
4. Proceed to complete the application by selecting or entering in the appropriate responses. Click 'Next' to proceed through the application screens.
5. After you have checked the box to acknowledge that you have read the Application Terms & Agreements and answered all the questions, click 'Submit' to have your application considered.
6. To confirm submission of your application, please see your email inbox for a confirmation email indicating that you have applied for the program.

For online application questions, please call our Employment Help Line at (510) 464-6112 (Monday to Friday from 8:30 to 5:00 pm)

SELECTION PROCESS

- Must submit a completed application by the closing date.
- Must be at least 18 years of age by August 2016.
- Must successfully pass a college assessment test.
- Additional Screening based on criteria as identified by FTA Grant Target Areas. For more information, please see 'Program and grant overview' link at www.bart.gov/training.

Partnering Agencies

Workforce Investment Boards (WIBs) work to build a better workforce by linking employers, job seekers and youth to education, training and employment related programs and services the Workforce Innovation and Opportunity Act. The WIBs and their affiliated One-Stop Career Centers and youth providers will assist with outreach and recruitment, screening for the training program as well as case management to WIOA enrolled participants in the program.



The BART System and Participating College Locations



- ★ 1 Chabot College
- ★ 2 City College of San Francisco
- ★ 3 College of San Mateo
- ★ 4 Diablo Valley Community College
- ★ 5 Los Medanos College

BART EQUAL OPPORTUNITY EMPLOYMENT STATEMENT

The San Francisco Bay Area Rapid Transit District is an equal opportunity employer. Applicants shall not be discriminated against because of race, color, sex, sexual orientation, gender identity, gender expression, age (40 and above), religion, national origin (including language use restrictions), disability (mental and physical, including HIV and AIDS), ancestry, marital status, military status, veteran status, medical condition (cancer/genetic characteristics and information), or any protected category prohibited by local, state or federal laws.

ACCOMMODATION REQUESTS

The BART Human Resources Department will make reasonable efforts in the examination process to accommodate persons with disabilities or for religious reasons. Please advise the Human Resources Department of any special needs in advance of the examination by calling (510) 464-6112.

Human Resources Department
300 Lakeside Drive • Oakland CA 94612
510-464-6112 • HRPL@bart.gov

www.bart.gov/training



The Transit Career Ladders Training Program (TCLT)



Accepting Applications:
MARCH 25, 2016 - APRIL 29, 2016



Introducing Transportation Careers
to the Communities We Serve

San Francisco Bay Area Rapid Transit

About the TCLT Program

This project is part of the 2015 Innovative Public Transportation Workforce Development program, directed by the Federal Transit Administration. The Transit Career Ladders Training (TCLT) Program is designed to meet the growing needs of the transit workforce by providing training access for traditionally under-represented individuals with the goal of developing streamlined pathways into transportation employment. The project funding requested for the TCLT Program will help to support creation of new and enhanced recruitment efforts for new transit entrants in Electronics and Electrical classifications for up to 85 participants.

Program Benefits

Enroll in this fully paid technical program for a career such as:

- > Electrician
- > Train Control Electronic Technician (TCET)
- > Transit Vehicle Electronic Technician (TVET)

You'll receive college credits and no experience is necessary.

The Transit Career Ladders Training (TCLT) Program is funded by a grant from the Federal Transit Administration and is in partnership with Bay Area Community Colleges, Bay Area Rapid Transit (BART) and such agencies as the local Workforce Investment Boards (WIB).

Participating Colleges



Chabot College
Hayward, CA
www.chabotcollege.edu/esys

Electronic Systems Technology Program

Chabot's Electronic Systems Technology program prepares students for rewarding careers in a broad array of technical fields. Electronics technology is used in practically every industry, and the ESYS program provides broad coverage of the systems, practices, and theory for students seeking entry-level positions or for working students seeking to expand their skills to advance their careers. All ESYS courses are offered on an eight-week accelerated schedule, making it easier for students to complete their coursework while still maintaining their work and family schedules.

Class Days and Times: All ESYS courses are a combination of online learning and in-class hands-on learning. On-campus sessions for our regular program meet Tuesday, Wednesday, and Thursday evenings 6-10 pm. The TCLT sessions, including on-campus group study sessions, meet Monday through Thursday 1-5 pm.



City College of San Francisco
San Francisco, CA
<http://s148.org/bart>

Certificate in Basic Electronics Program (Joint Program with College of San Mateo)

Electronics program includes instruction in the fundamental principles of electronics. Students will be able to apply this knowledge and understanding to perform tests, comprehend schematics, troubleshoot and repair analog and digital electronic circuits and instruments. Students will be instructed in the building of circuits that demonstrate an understanding of basic electronics device principles. Students will also learn how to develop procedural methods in troubleshooting and repair of analog and digital circuits and instruments.

Class Days and Times: Select Weeknights from 6-10 pm



College of San Mateo
San Mateo, CA
<http://collegeofsanmateo.edu/powersystems/>

Electrical Power Systems and Calibration Program

It is the intent of this certificate to prepare students for work in a variety of industries that require knowledge of electronics and skills in the calibration of highly sensitive equipment. The curriculum in the certificate program is also intended to position students to pass employment tests and interviews for high wage/high demand jobs in a variety of industries, particularly in utility companies (power, water and wastewater). This certificate program is part of the Electronics Department.

Class Days and Times: (Generally all classes are offered at night. We occasionally have enough demand to offer one or two of the entry courses in the day time.) Night Courses: They are generally offered each semester in blocks of two evenings a week. Typically they will be either on Monday/Wednesday or Tuesday/Thursday from 6-10 pm. The exception to this schedule would be the summer session which is compressed into fewer weeks and therefore requires the hours to be arranged accordingly.



Diablo Valley College
Pleasant Hill, CA
www.dvc.edu/academics/pсед/archi-engin/electronics/

Electrical/Electronics Technology Program

The Electrical / Electronics Technology Program at Diablo Valley College prepares students for employment in a wide variety of careers and industries designing, installing, maintaining, and servicing a wide range of electrical and electronic equipment. Potential careers opportunities exist in Transportation, Product Development, Commercial appliances, Medical equipment, HVAC, Electrician, Electrical or Electronic Technician, Service or Sales Technician, Telecommunications, Power Generation and Distribution, Elevator Technician, and more. Core Classes include AC and DC, Electronics, Linear Circuits, Electrical Codes, Motors and Controllers, Programmable Logic Controllers, Troubleshooting, Electromechanical Equipment, and Robotics.

Class Days and Times: Monday to Thursday 8:30 am - 2:30 pm



Los Medanos College
Pittsburg, CA
www.losmedanos.edu/ETEC

Transportation Electrical & Electronics Technician Program

The Transportation Electrical & Electronics Technician Certificate of Achievement* will prepare students to perform skilled preventive maintenance, installation, troubleshooting, repair, and modification to a variety of electrical systems and equipment on trains and transit systems, watercraft, or other mobile equipment. The program consists of 22 units (720 hours) and can be completed in 3 semesters.

Upon program completion students may opt, on their own, to complete the full Electrical and Instrumentation Certificates of Completion and Associates Degrees.

*Pending State Chancellor's Office approval.

Class Days and Times: Monday, Tuesday, Wednesday, Thursday, 12 pm - 5 pm.

How the Co-op Program Works

- You stay enrolled at your home school and travel to Central Technical School
- 4-credit co-op: full days at co-op placement
- Classes and co-op placements operate Monday through Friday
- Participants attend several in-class sessions
- Full-time classes at Central Technical School for the first four weeks of the semester or term as well as integration classes.
- Skill development at the TTC
- After the placement has started, co-op classes meet in school on pre-arranged days to share experiences
- The co-op teacher and supervisor meet with the student on site regularly to monitor progress and ensure success

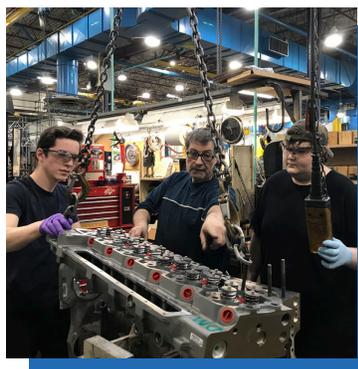


Who Can Apply?

- You are at least 16 years old
- You have at least 16 credits
- Successfully completed a Transportation Technology or similar hands on course/experience

How Can You Apply?

- Pick up an application package in the Co-op or Student Services Department at your school
- Discuss the program with your parent(s) or guardian
- Talk to your school's co-op teacher
- Have your co-op teacher submit your completed STEP to Transportation application to TDSB Student Facilitator Pat Yorke (Pat.Yorke@tdsb.on.ca)



For more information contact:
Pat Yorke
416-396-6001

STEP To Transportation



SPECIALIZED TRADES EXPLORATION PROGRAM



tdsb



EXPERIENTIAL LEARNING
Unleashing Success and Inspiring the Future



Central Co-Op Program

Toronto Transit Commission

Program Benefits

The **Specialized Trades Exploration Program (STEP) To Transportation Program** provides youth with hands-on opportunities to discover the wide range of careers available in the Motive Power sector at the Toronto Transit Commission (TTC). You can explore the following trades including Truck and Coach Technician, Auto Body Collision Repair, Electronics, Carpentry, Millwright, Metal Fabricator, Welder and more.

Available to students 16 years or older, **STEP To Transportation** offers valuable industry experience while allowing participants to earn high school co-op credits.

Gain Practical Experience

- Rotate and work with many skilled transportation trades workers on one TTC site
- Develop technical skills that will help you find future employment
- Prepare for careers in trades at the TTC, including Management as well as civil, mechanical and structural engineering
- Obtain industry resources, information, and advice to discover the 20+ trade options and career paths available in Transportation



Develop Essential Skills

- Learn to read information on safety procedures and hazards
- Understand how to read technical manuals and drawings
- Strengthen math skills by calculating measurements
- Develop reading, writing and problem-solving skills
- Gain effective oral communication skills while interacting with team members to ensure tasks are completed safely within deadlines and according to plans
- Polish your computer skills
- Learn continuously and think critically in dynamic and ever-changing environment

Further Your Education

- Earn Co-op credits which count for a maximum of two (2) compulsory credits towards your Ontario Secondary School Diploma
- Learn about Transportation Apprenticeships and training
- Prepare for post secondary destinations
- Discover the importance of safety in the workplace through WHMIS (Workplace Hazardous Materials Information System), Working at Heights, and TTC protocols/procedures



What Participants Say

"I think this is awesome!"

"The TTC has everything - cars, vans, buses, streetcars, including lots of hybrid technology to learn about."



"There are so many different learning opportunities here - and all in a really safe environment! Everyone here pays attention to safety, and watches out for each other."



Practicum Students

The Enterprise provides practicum opportunities to high school and post-secondary students in a variety of departments: Accounting, Administration, Information Systems, Maintenance, etc.

Normally, an enquiry from a student, student counsellor or school about a practicum request will be sent to HR.

Post Enquiry:

1. Request cover letter and resume from the counselor or student. The cover letter should include area of interest, start and end dates of practicum, and attendance during the practicum assignment (i.e. how many days per week they will be onsite).
2. The student's cover letter and resume is forwarded to the respective department's hiring manager for review. Hiring Manager to advise if there is a need for the practicum student.
3. No need - Advise the counselor and/or student.
4. Need - advise the counselor and/or student to forward the appropriate paper work.
5. The student must provide a WorkSafe BC waiver, as well as an evaluation form from the school, signed by the instructor/counselor and student. The student must bring the evaluation form and WorkSafe BC waiver to his/her first day of practicum. Save WorkSafe BC waiver in practicum folder on HR Services drive.
6. At the end of the practicum assignment, the hiring manager fills out the evaluation form and sends it to the counselor/instructor.

Note: During the practicum assignment, the counselor or instructor may visit the employer to discuss the performance of the student.

ENTRY-LEVEL JOBS



Leadership Excellence and Development Program

The LEAD Program:

- Designed to accelerate development of entry-level talents and produce leaders capable of meeting Alstom's 21st century challenges to staff the Engineering, Supply Chain, Manufacturing and Industrial, Quality, Procurement and Environmental Health & Safety functions
- Consists of four challenging six month rotations where program members are exposed to various areas within Alstom's business units and the rail industry through projects assigned in each rotation
- Is managed by Site Level Steering Committee:
 - Business Leader,
 - HR (LEAD Program Manager)
 - Program Mentor(s)

Business	Current Enrolled	Graduated 2019/20
F&M	5	8
RSC	4	6
P&T	4	2

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"Experience is not something that can be taught or learned. It is something that is accrued over time. The LEAD program offers that wealth of experience in half the time."

Jeff Locke
Production Supervisor
2018 LEAD graduate

Requirements

- ✓ 3.0 minimum GPA
- ✓ Flexibility in relocation
- ✓ Project management skills
- ✓ Proficient in Microsoft Office
- ✓ Past leadership experience
- ✓ Internships or other professional experience in relevant field
- ✓ Willingness to learn





STATION AGENT

FC: OB155
PG: TW-II

PC: 521
BU: 11
July 2003

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

Under general supervision, provides passenger information, ensures passenger safety and ensures that station equipment and facilities are operating properly; performs related work as assigned.

CLASS CHARACTERISTICS

Incumbents in this class act as a physical presence in an assigned station during normal revenue service hours. Their overall function is to provide assistance and information to patrons while maintaining an on-site observance to detect problems with station equipment or facilities and make arrangements for corrective action as required. This class is distinguished from Operations Foreworker in that the latter is a supervisory class with responsibility for station operations during an assigned shift.

EXAMPLES OF DUTIES – *Duties may include, but are not limited to the following:*

1. Provides information to passengers regarding service, fares, routes, schedules, delays, transfers and other connecting transit services.
2. Provides information regarding points of interest and street locations in the vicinity of the station.
3. Explains the operation of fare machines, elevators and other station equipment.
4. Assists with special problems and services such as handicapped access, bicycle permits, lost tickets, lost and found items, by taking prescribed action.
5. Calms angry or belligerent passengers, determines the nature of the problem, and takes appropriate corrective action.
6. Observes potential safety hazards, places barricades or takes other action and notifies the appropriate District personnel.
7. Takes prescribed action such as administering first aid, evacuating passengers and using a fire extinguisher during emergencies.

Station Agent

Page 2

8. Monitors fare and transfer machines; performs fingertip maintenance on AFC equipment and empties ticket bins and refills transfer supplies to ensure continued operation.
9. Monitors gates, escalators, elevators and other equipment; places signs and barricades on inoperable equipment and notifies the prescribed staff.
10. Opens and closes station at appropriate times; uses a public address system to provide information and instruction.
11. Maintains logs of work activities; completes standard forms to report unusual circumstances and actions; requests supplies; monitors and learns to apply changes in operating and emergency procedures.

QUALIFICATIONS

Knowledge of:

Methods and techniques of dealing effectively with varied groups and individuals under both routine and emergency circumstances.

Skill in:

Interpreting and applying oral and written instructions in a consistent manner.

Dealing with individuals from various socio-economic groups, including the disabled in a tactful, calm and confident manner.

Maintaining accurate and basic records and completing brief forms and reports clearly and accurately.

Working independently and exercising sound judgment in a variety of situations.

Detecting unusual, hazardous or emergency situations and taking appropriate actions within prescribed guidelines.

Learning the policies and applying procedures pertaining to the work, including station operating processes and procedures to follow in unusual or emergency situations.

Performing minor maintenance and adjustment to station equipment.

MINIMUM QUALIFICATIONS

Education:

Possession of a High School diploma, GED or recognized equivalent.

Experience:

Four (4) years of (full-time equivalent) verifiable direct face to face customer service experience involving dealing with diverse and large groups of people.

Station Agent

Page 3

Other Requirements:

Must obtain and maintain certificates and Station Agent certification as required by the District and/or PUC.

Must be willing to work off-hours shifts, holidays and weekends.

Must have sufficient physical capability to stand for a prolonged period of time, sit, walk, bend, stoop, and climb.

Must be able to work in confined spaces.

Must be able to lift materials and supplies weighing up to 30 pounds.

Must possess a valid California driver's license and have a satisfactory driving record.

WORKING CONDITIONS

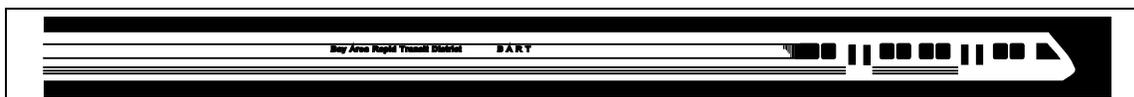
Environmental Conditions:

Station environment; work in confined space; exposure to cold, heat, and noise.

Physical Conditions:

Requires maintaining physical condition necessary for standing for a prolonged period of time, sitting, walking, bending, stooping; climbing; and lifting materials and supplies weighing up to 30 lbs.

G:\CompClas\WPFiles\ClasSpec\Group_O\OB155-03 Station Agent



UTILITY WORKER

FC: MA835
PG: UW

PC: 111
BU: 06
April 1998

DEFINITION

Under general supervision, performs a variety of janitorial duties in maintaining rolling stock shops, offices, and revenue vehicles in a clean and orderly condition; performs related work as assigned.

CLASS CHARACTERISTICS

This class is distinguished from the System Service Worker classification in that the janitorial duties relate to rolling stock shops, offices, and revenue vehicles.

EXAMPLES OF DUTIES

Receives daily work assignments from appropriate supervisor; assembles necessary cleaning equipment, materials, supplies, cleaning solutions, and required protective gear; cleans office areas by vacuuming floors, carpets and upholstery, shampooing carpets and upholstery, emptying ashtrays and trash cans, dusting and washing chairs, desks, files and other surfaces and washing walls and doors; cleans and disinfects restroom surfaces and fixtures using detergents and chemicals; restocks restrooms with service supplies such as soap and paper goods; performs heavy cleaning in shop areas, including service pits, truck bays and docks and floor areas, ensuring that debris and grease are removed; in employee lunchroom areas, cleans sink, stove, refrigerator, and tables in addition to floor and wall areas; following specified procedures steam cleans tools or parts; cleans revenue vehicles by removing trash, vacuuming carpets and seats, scrubbing walls, doors and windows and spotting and shampooing carpeted and upholstered areas; replaces worn seat covers as required; documents work performed; performs cleaning tasks known as common labor.

QUALIFICATIONS

Knowledge of:

Cleaning procedures, methods, supplies, tools, and equipment; safe working practices and techniques.

Skill in:

Using Hand tools and power equipment to vacuum, scrub, strip, wax, buff, shampoo, and otherwise clean varied surfaces and fixtures. Using detergents and cleaning solutions correctly and safely. Following oral and written directions. Working independently without immediate supervision; working cooperatively with others; maintaining accurate basic logs

Utility Worker
Page Two

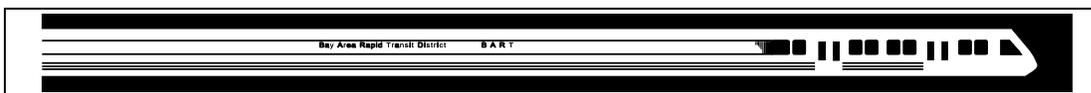
Other Requirements:

Must have physical capability to perform strenuous physical labor, including sufficient strength to lift trash containers and equipment weighing up to 50 pounds; must be willing to work weekends and off-hours shifts. Must possess a valid California driver's license and have a satisfactory driving record.

MINIMUM QUALIFICATIONS

Equivalent to completion of the twelfth grade and one year of experience which will have provided a familiarity with janitorial procedures, equipment, and supplies.

G:\CompClas\WPFiles\ClasSpec\Group_M\MA835-98 Utility Wker



TRACK WORKER

JC: MA660
PG: MW-II
FLSA: Non-Exempt

PC: 201
BU: 01 (SEIU)
Created: April 1988
Revised: March 2017

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under general supervision, performs a variety of semi-skilled maintenance, repair and modification activities involving trackage and related appurtenances and performs related duties as assigned.

CLASS CHARACTERISTICS

Incumbents in this class normally work in a small crew setting and on off-hours shifts to perform varied physical work in the preventive maintenance and repair of heavy rails and related equipment in locations throughout the system. This class is distinguished from the skilled craft classes in that the work of the latter classes normally require the equivalent of completion of an apprenticeship in a designated craft area for successful work performance.

REPORTS TO

This position reports to the Track Foreworker who assigns work and administers the first step of disciplinary procedure, and to the Section Manager, Track Maintenance who implements major personnel decisions such as hiring and termination.

EXAMPLES OF DUTIES – *Duties may include, but are not limited to, the following:*

1. Receives daily work assignments from shift Foreworker.
2. Selects and gathers necessary hand and power tools, equipment and materials from storage, using a dolly or forklift as required.
3. Loads and unloads tools and equipment from gang truck or buggies.
4. Travels to assigned work sites.
5. Cleans and clears debris, weeds, shrubbery, dead animals and other trash and obstructions from track and associated wayside.
6. Performs scheduled preventive maintenance such as cleaning and lubricating track fastenings and switches and tightening torque and anchor bolts.
7. Installs, removes and replaces track fastenings, concrete and wooden ties, angle bars and joints,

Track Worker

Page 2

switches and rails, including turnouts.

8. Assists in resurfacing and realigning tracks, gauges tracks rails as required.
9. Reads diagrams and specifications to determine appropriate measurements.
10. Cleans up work site after completion of assigned work.
11. Maintains tools and equipment in a clean and orderly condition.
12. Reports unusual incidence and the need for additional maintenance or repair to Foreworker.

QUALIFICATIONS

Knowledge of:

Track work and related appurtenances, maintenance procedures, methods, supplies, tools and equipment is preferred.

Experience in the proper use and care of hand and power tools and equipment is preferred.

Safe working practices and techniques.

Skill in:

Using hand tools and power equipment to perform semi-skilled track maintenance and repair work.

Following oral and written directions.

Working independently without immediate supervision.

Working cooperatively with others in a crew.

MINIMUM QUALIFICATIONS

Education:

Possession of a high school diploma, GED, or recognized equivalent.

Experience:

One (1) year of (full time equivalent) verifiable track maintenance experience is preferred.

Other Requirements:

Must possess a valid California driver's license and have a satisfactory driving record.

Must be physically able to perform strenuous physical labor both indoors/outdoors in all types of weather.

Must be physically able to lift and carry various shaped material and equipment up to 50 lbs. within 100 yards or more.

Must be physically able to walk, climb, stoop, bend, crawl, twist, work in confined spaces, work underground, and heights up to 60 ft. and walk on uneven surfaces.

Must be physically able to climb and work from a ladder.

Must be physically able to climb into vehicles with steps up to 25'' from the ground in close clearances.

Must be able to wear respiratory and fall protective equipment during the performance of assigned

duties in accordance with the District Respirator Program and applicable Cal-OSHA requirements

Track Worker

Page 3

and work in dusty work environment subject to various fumes and noise levels in the proximity of live voltage.

Must be willing to work weekends and off-hours shifts.

Must be able to understand, read, write, and communicate in English.

WORKING CONDITIONS

Environmental Conditions:

Field, shop, or construction site environment; exposure to dust, noises, fumes, heat, cold, confined spaces, heights, underground, moving vehicle, electrical energy and inclement weather conditions.

Physical Conditions:

Requires maintaining physical condition necessary for performing strenuous labor; lifting and carrying various material and equipment; walking, climbing, stooping, bending, crawling, twisting, working in confined spaces, underground, and heights, walking on uneven surfaces; climbing and working from a ladder; climbing in and out of vehicles; and wearing respiratory and fall protective equipment.

EEOC: 08

Safety Sensitive Designation: Yes

G:\CompClas\WPFiles\ClasSpec\Group_M\MA660-14 Track Wker



SYSTEM SERVICE WORKER

FC: MA400
PG: UW

PC: 111
BU: 01
March 1992

DEFINITION

Under general supervision, performs a variety of janitorial duties in maintaining District stations, shops and offices in a clean and orderly condition; performs related work as assigned.

CLASS CHARACTERISTICS

This class is distinguished from the Utility Worker classification in that the janitorial duties are generally performed in District stations, shops and offices.

EXAMPLES OF DUTIES

Receives daily work assignments from appropriate supervisor; assembles necessary cleaning equipment, materials, supplies, cleaning solutions and required protective gear; travels to assigned work site; maintains District stations in a clean and orderly condition by sweeping, scrubbing, waxing and cleaning floors, cleaning and polishing elevators, escalators, ticket machines, gates and fixtures, washing windows and windbreakers and emptying trash containers; clears leaves, trash and debris; sweeps and cleans walkways, patios and sidewalks from the station to the street and all bus stops on District property; cleans District office areas by vacuuming floors, carpets and upholstery, shampooing carpets and upholstery, emptying ashtrays and trash cans, dusting and washing chairs, desks, files and other surfaces and washing walls and doors; cleans and disinfects restroom surfaces and fixtures using detergents and chemicals; restocks restrooms with services supplies such as soap and paper goods; performs heavy cleaning in shop areas, including service pits, truck bays and docks and floor areas, ensuring that debris and grease are removed; in employee lunchroom areas, cleans sink, stove, refrigerator and tables in addition to floor and wall areas; steam cleans tools or parts as may be required; documents work performed; notifies crew leader or supervisor of required maintenance; responds to urgent cleanup in parking lots, garages, trains, offices, and stations as required; and performs heavy cleaning in yards and shops.

QUALIFICATIONS

Knowledge of:

Janitorial procedures, methods, supplies, tools and equipment; safe working



This Could Be You



www.BART.gov/jobs

MoveUp Job Posting

TransLink

Job Title: TL Student Assistant-Social Media & Dig - FTT (4 Months)
Job ID: 20190250
Location: Sapperton
Full/Part Time: Full-Time
Regular/Temporary: Temporary

Division

Communications & Customer Engagement

Department

Social Media

Union Affiliation

MoveUP

Responsibilities

Assists the Social Media Team with creating, editing and shooting videos, photos and graphics for publication. Assists the Manager with the delivery of communications programs. Assists with compiling social media analytics. Attends events to cover them on social media including ad hoc weekend events.

Qualifications

EDUCATION:

Requires completion of a minimum of two (2) years post-secondary education in an undergraduate degree program in a discipline related to communications, public affairs, corporate communications/public relations, journalism or other related discipline. Must still be enrolled as a student.

EXPERIENCE:

Requires up to 3 months previous experience in a Communications role preferably in social and digital media and a further period of up to 1 month on the job to become familiar with TransLink's transportation policies, social and digital media campaigns.

Other Information

Posting Reason: Addition
Number of Available Positions: 1

Recruitment Process: An applicant will be required to demonstrate their suitability for this position by meeting the minimum level of qualifications and experience in order to be invited into the selection process.

translink.ca/careers



MoveUp Job Posting

TransLink

Please note: An equivalent combination of education and experience may also be considered.

Once in the process, testing will be used to confirm this suitability and all internal applicants will be required to obtain a pass mark of 70% on each component of the testing to demonstrate a minimum level of proficiency in the position.

An applicant's overall score is comprised of the interview score and the reference score from the applicant's current supervisor. The required overall pass mark is 70%. The questions asked in the interview will be based on the following list of competencies:

1. Technical Skills/Experience
2. Interpersonal/Communication Skills
3. Planning & Organizing Skills
4. Attention to Detail

Discipline and attendance are performance factors and will be assessed during the job selection process.

All Unionized Employees or employees moving into a unionized position Please Note:

As of January 25, 2016, CUPE Local 7000 has withdrawn their support of the 2009 Mobility Agreement. Consequently, the terms and conditions of the agreement are no longer in effect for Enterprise-wide employees accepting employment at BCRTC, or BCRTC Employees moving to one of the other operating companies. In this regard, due to the withdrawal of support for the Mobility Agreement, employees in this transition will no longer receive any of the benefits of the said agreement, such as: accreditation for their prior service for the purpose of determining service-related entitlements or vacation or leave-of-absence entitlements, or the required benefits waiting period.

Work Schedule

37.5 hours per week.

Rate of Pay

Group: 05
Salary: \$3,809 - \$4,584 per month (\$23.35 - \$28.11 per hour)

Our recruiting policy is to give first priority to internal (TransLink) employees, second priority to qualified employees within the TransLink group of companies. Applications from the general public will only be considered if we do not have any qualified candidates. TransLink retains the final hiring decision.

How to Apply

Please click the 'Apply' button in the top right corner of the page, or visit <http://q.mycmbc.ca>, mybcrtc.ca to apply for this position and view other job opportunities.

INSTRUCTIONS: Please save your (1) cover letter, and your (2) resume as one pdf document prior to uploading your application on-line.

Questions regarding this competition can be directed to Peter Bailey at Peter.Bailey@translink.ca or at 778-375-7884.

Please ensure your application is received before the posting deadline.

Posting Date: 4th April 2019

translink.ca/careers



MoveUp Job Posting

TransLink

Closing Date: 10th April 2019

TransLink is committed to employment equity.

translink.ca/careers



MoveUp Job Posting

TransLink

Job Title: TL Student Transportation Planner, GIS - FTT (8 months)
Job ID: 20190794
Location: Sapperton
Full/Part Time: Full-Time
Regular/Temporary: Temporary

Division

Infrastructure Management and Engineering

Department

MRNB Program & Asset Mgmt

Union Affiliation

MoveUP

Responsibilities

The Student Transportation Planner may undertake planning, coordination, research, analysis and communications tasks in support of a broad range of planning projects and initiatives, including best-practice review, literature reviews, data collection, synthesis and analysis, research projects, policy review, drafting of reports and memos, and preparation of presentations.

Qualifications

Requires completion of a minimum of two (2) years post-secondary education in an undergraduate degree program in a discipline related to urban planning/design, planning, geography, environmental studies or other related discipline. Must still be enrolled. Completion of courses in office procedures, word processing, database and spreadsheet software. Requires up to (3) months previous experience in planning related, data collection, data analysis, research and graphics software and a further period of one month on the job to become familiar with TransLink's Regional Transportation Network.

Other Information

Posting Reason: Temporary Assignment
Number of Available Positions: 1

Recruitment Process: An applicant will be required to demonstrate their suitability for this position by meeting the minimum level of qualifications and experience in order to be invited into the selection process.

Please note: An equivalent combination of education and experience may also be considered.

Once in the process, testing will be used to confirm this suitability and all internal applicants will be required to obtain a pass mark of 70% on each component of the testing to demonstrate a minimum level of proficiency in the

translink.ca/careers



MoveUp Job Posting

TransLink

position.

An applicant's overall score is comprised of the interview score and the reference score from the applicant's current supervisor. The required overall pass mark is 70%. The questions asked in the interview will be based on the following list of competencies:

1. Job Related Skills
2. Technical Skills
3. Analytical Skills
4. Communication/Interpersonal Skills
5. Organizational Skills

Discipline and attendance are performance factors and will be assessed during the job selection process.

All Unionized Employees or employees moving into a unionized position Please Note:

As of January 25, 2016, CUPE Local 7000 has withdrawn their support of the 2009 Mobility Agreement. Consequently, the terms and conditions of the agreement are no longer in effect for Enterprise-wide employees accepting employment at BCRTC, or BCRTC Employees moving to one of the other operating companies. In this regard, due to the withdrawal of support for the Mobility Agreement, employees in this transition will no longer receive any of the benefits of the said agreement, such as: accreditation for their prior service for the purpose of determining service-related entitlements or vacation or leave-of-absence entitlements, or the required benefits waiting period.

Work Schedule

37.5 hours per week.

Rate of Pay

Group: 06
Salary: \$4,166 - \$5,000 per month (\$25.54 - \$30.66 per hour)

We are an equal opportunity employer committed to creating and supporting a diverse and inclusive workforce that is free of all forms of discrimination. We are committed to providing reasonable accommodations and will work with you to meet your needs. If you are a person with a disability and require assistance during the application process, please reach out! We celebrate our inclusive work environment and welcome members of all backgrounds, skills and perspectives. Accommodations are available on request for candidates taking part in all aspects of the selection process. For a confidential inquiry, simply email us at jobs@TransLink.ca.

translink.ca/careers





Job Title: BCRTC Engineering Coop Student, Mechanical - FTT (8 months) (20180256)

Location: Burnaby

Full/Part Time: Full-Time

Regular/Temporary: Temporary

British Columbia Rapid Transit Company Ltd. (BCRTC) maintains and operates two of Metro Vancouver's three SkyTrain lines on behalf of TransLink, the regional transportation authority. Launched in 1986, SkyTrain is the first and one of the longest, fully-automated, driverless, rapid transit systems in the world. It boasts an average on-time service performance rating of 95 per cent and moves on average 250,000 passengers per weekday.

Responsibilities

This is a four (4) month assignment which will provide opportunities for engagement with engineers, managers and others in different departments in the organization, and provide an understanding of some of the workings within the engineering department at BCRTC.

This position will assist Engineering in various projects related to maintaining and operating BCRTC rolling stock and rail assets, research of mechanical issues on rolling stock and wayside elements, research and development of design standards and process improvements and compliance.

Qualifications

Mechanical Engineering Student - Third or Fourth year preferred with strong academic background in mechanical or electrical engineering, currently enrolled in a recognized post-secondary Mechanical or Electrical Engineering Program at a BC university.

Experience with AutoCAD, Solidworks and competence in Excel, Word and PowerPoint

Valid BC class 5 driver's license

Previous co-op experience is a strong asset

Previous industrial experience is an asset

Safety first attitude

Excellent verbal communication and writing skills



Proven interpersonal and leadership skills

Positive and self-motivated

Strong organizational and analytical skills

The ability to work independently as well as part of a team

Proficient in the use of computer systems and software

The desire to progress, learn, grow, and succeed

Demonstration of excellent grades

Other Information

Recruitment Process: An applicant will be required to demonstrate their suitability for this position by meeting the minimum level of qualifications and experience in order to be invited into the selection process.

A standard interview format will be used including general, scenario and behavioural descriptive interview questions.

In accordance with the Canadian Railway Safety Act - Railway Medical Rules: Section 3.2, employees who work in or transfer into safety sensitive or safety critical positions are required to undergo pre-placement and periodic medical assessments that evaluate the impact, if any, of medical conditions on fitness for work.

Work Schedule: 40 hours per week.

Rate of Pay: Grade 1: \$23.64 to \$29.55 per hour

How to Apply

Please click the 'Apply' button at the bottom of the page or go to <http://www.translink.ca/careers> to apply for this position and view instructions on the process.

INSTRUCTIONS: Please save your (1) cover letter and your (2) resume as one pdf document prior to uploading your application on-line.

Posting Date: April 04, 2018
Closing Date: Open Until Filled

TransLink (Vancouver, British Columbia)



Please note that only those short listed will be contacted.

Having trouble applying?

Please view the System Requirements & FAQ's by going to <http://www.translink.ca/careers>.

British Columbia Rapid Transit Company is an equal opportunity employer.

INTERNSHIPS



Introducing Youth
to American
Infrastructure+



Dr. Juanita Jones-Abernathy “Community Builder” Internship Announcement Guidelines (Fall/Winter 2020)

Status:	Iyai+ Student Internship (Independent Contractor Status)
Application Period:	August 14 – August 28, 2020; Selection planned to be completed by September 15th.
Period of Performance:	September – December 31, 2020
Location:	100% virtual; on-line working environment (home-based), including remote videoconferencing, use and support of Iyai+'s Moodle Learning System; and, virtually-supported small group work sessions [NOTE: Iyai+ is located in California; Pacific Time Zone]
Time Commitment:	20 hours per month (maximum – approximately 5 hours/week)
Compensation:	\$15.00/hour (recipient responsible for payment of all taxes); Bi-Weekly Direct Deposit Payment (weekly time sheet/projects status required)
General Eligibility:	Strong Selection Preference for Interested CTA OSC MBC Cohort Participants
Parental/Guardian Release:	Required for Minors (must be submitted along with the application in order to be considered)

Internship Description: Work closely with Iyai+ CEO (and/or designee) and Iyai+ Interns/ alumni at Cardozo Education Center, TransSTEM Academy (Washington, DC) on the following specific activities: (a) Moodle LMS Documentation/Future Development: update and expand current Critical Infrastructure Facts Sheets documenting workforce Data and Trends across the critical national infrastructure sectors; focus on ways to enhance Iyai+'s online program -- materials and current traditional learning approaches and activities -- to be more impactful to our target audience in a remote, online learning environment; assist with periodic Moodle update; and (b) Support strategic expansion of Iyai+'s online Program presence to include a recommendation and Proposed Plan of Action for establishment of an infrastructure-focused Youth Peer-Peer Network model (international goal) to be piloted in CY 2021 – including an enhanced experience for Iyai+ Program participants, i.e., discussion forums, innovator corner, etc.





General Application Evaluation Considerations/Guidelines. For additional background information re: Iyai+, go to: www.iyai.org.

- CTA MBC Cohort Participation (Weekly Sessions) – personal engagement and enthusiasm, reliability
- MBC Capstone Project
- Essay: State why you are interested in this internship opportunity. Considering Iyai+'s mission, goals, and overall focus on infrastructure careers and services – explain how your educational background, school-based and/or volunteer/community service activities; and personal interests align with the Iyai+ mission, goals; and the specific projects/activities described above that you would be working on as a part of this internship opportunity. Please note if you are currently, or have previously participated in a STEM/STEAM Program. And, if you have worked in other work-study environments (including with other students) that require teamwork, considerable independent work (with minimal supervision), and good communication skills. Additionally, please state your level of proficiency with Microsoft 365, Power Point presentation, and other software apps; ZOOM videoconferencing; and learning management software (LMS) like Moodle, or a similar application; social media knowledge and proficiency (describe); and, your proficiency in a language(s) other than English.

Looking for interest and alignment with Iyai+'s mission and goals. A strong record of school participation, relevant community/volunteer service and/or employment (infrastructure-career-focused, a plus). Strong technical, communications – verbal and writing skills, and interpersonal skills with peers and supervisors. Dependability; an ability to work independently and in a small group with others in a virtual, remote teleworking environment; maintain schedules and deliverable due dates, with minimal direct supervision. A positive, “can do” attitude.

- School Transcript – past 2 years; GPA (average)
- Community/Extra-Curricular/Work Experience(s)/Other Considerations
- Interviews will be conducted with the shortlisted candidates; HOLD September 3-4th as tentative interview dates
- Three (3) References (including an e-mail/telephone contact number) – will only be contacted for shortlisted candidates
- Applicants must be legally authorized to work in the United States

Immediately Upon Selection: Iyai+ payments are handled by direct deposit. A copy of IRS Tax Form W-9 and the financial services information necessary to authorize establishment of the direct deposit will be provided directly to Iyai+'s Accounting Service.



Jacobs Americas Internship Program

Paid Summer Internship Program

You don't have to wait until you've graduated to contribute to the world...

At Jacobs, we're creating a **more connected and sustainable world**, and as an Intern, you will too. We'll help you launch your career while building your network and engaging with a great company so you can **evolve, grow and succeed** - today and into tomorrow.

For more information & to apply, visit:
www.jacobs.com/careers/early-careers



12 Week Program Schedule



Program Overview



Global Call Series

Listen to our global leaders discuss what sets Jacobs apart as an employer of choice.



Work With a Team

Managers, peer mentors, and university champions committed to making your internship a success.



Employee Network Groups

Join a Jacobs' Employee Network Group and foster connections with employees around the world.



Intern Connect & Reflect

Interact with other interns across the country & different Lines of Business.



Social Events & Site Visits

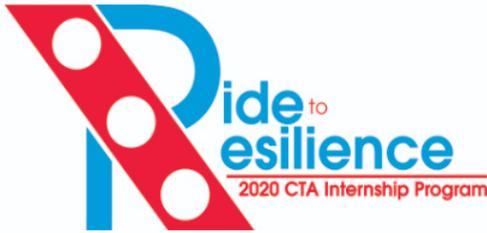
Hear from local leaders during Lunch & Learn sessions and participate in fun social events & informative site visits.



Intern Presentation Competition

Share your internship experience with a short presentation of your time at Jacobs.

Jacobs Challenging today.
Reinventing tomorrow.



TRAINING AND WORKFORCE DEVELOPMENT PRESENTS

INTERN VIRTUAL TAKEOVER



AUGUST 3 - 6, 2020

SUMMER TERM CAPSTONE WEEK



The 2020 summer internship term will culminate in an interactive virtual CTA takeover by 150 + One Summer Chicago High School and College Interns. Please join us on the Ride to Resilience.

Monday, 8/3	Tuesday, 8/4	Wednesday, 8/5	Thursday, 8/6
0930 - 1030 CTA Intern Takeover Kick-Off ft. Mary Wallace & CTA Guests RSVP Here	0930 - 1030 The Ideal Candidate (OSC) Career Readiness Presentation RSVP Here	0930 - 1030 College Intern Symposium Presentations RSVP Here	0930 - 1030 Marwen (OSC) Visual Arts Presentation RSVP Here
1230 - 1400 Introducing Youth to American Infrastructure (OSC) RSVP Here	1230 - 1400 Toastmasters (OSC) Speech Presentation RSVP Here	1230 - 1330 College Intern Symposium Presentations RSVP Here	1230 - 1400 The Joffrey Ballet (OSC) Ballet Dance Presentation RSVP Here

Registration per event is required. Space is limited.





DART Summer Internship Program



DART Summer Intern Program

- DART hosts High School Students from the following area organizations:
 - Dallas Works
 - Richardson Mayor's Intern Program
 - All Stars Project Inc – Development School for Youth
 - ACE Mentor of Dallas Fort Worth
- DART hosts Undergraduate and Graduate students from around the country to work in divisions across the agency



DART Summer Intern Program

- Program Details and Requirements:
 - Eligibility: Full-time High School, Undergraduate and Graduate students
 - Application Process: College students apply online at DART.org from February 3 to March 6
 - Program Dates: June 15 to August 7



DART Summer Intern Program

- Human Resources Facilitates the program
 - Recruiting
 - Lunch and Learn seminars featuring speakers and panel discussions for the students
 - Luncheon at the end of the program for students and supervisors
 - Mayor's program students attend a luncheon honoring the High School students and their supervisors



High School Interns

- Ensure your department has budget to host an intern:
 - \$10.00 an hour, maximum 30 hours a week
 - Total Cost is \$2,400.00



College Interns

- Ensure your department has budget to host an intern:
 - Undergraduates: \$15.00/hr, 30 to 40 hours a week
 - Total Cost is \$4,800.00 (Based on a 40 hr work week)
 - Graduate Students: \$17.00/hr, 30 to 40 hours a week
 - Total Cost is \$5,440.00 (Based on a 40 hr work week)



Requesting Interns

- If departments would like to request a student:
 - Complete the shared OneNote spreadsheet
 - Specify level of student and course of study



Requesting Interns

- Interviews
 - Let Human Resources know if you would like to interview students
 - Human Resources will contact the candidate and make the arrangements



Selecting a Student

- Human Resources will send a spreadsheet with students that meet department requested criteria to be reviewed



Selecting a Student

- When selecting a student
 - Choose 1 primary and 2 alternates
 - In case the primary student is not available.



Requesting Information

- If you require further information:
 - Please contact Jill Dickson in Human Resources or email HR-OE@dart.org



**Thank you for
participating in
shaping the future of
DART!**



DART Summer Internship Program 2019

Human Capital is getting ready for the DART Summer Internship Program. The program this year will take place from June 10 to August 2.

High School Students from the Mayor's Fellows Program and All Stars Project Inc will be participating again this year. Full-time undergraduate and graduate students will be hired to work in various departments across the agency. Students take part in Lunch and Learn programs where can network with other students and learn more about DART.

We are looking for students in the following disciplines to apply: Supply Chain Management, Finance, Accounting, Engineering, Criminal Justice, Business, Marketing, Communications, Education and Information Technology. However, all courses of study are welcome to apply.

College students can apply for the program via DART.org through March 1.

College Intern Job Description

General Summary:

Under the close supervision, guidance and mentorship of professional staff within a specified department, undertakes a range of on-going activities and assigned projects. Receives training and mentoring from senior professional personnel in planning and carrying out activities and assignments. This position is limited to individuals who are enrolled in college or graduate school full time in the Spring of 2020.

Essential Duties and Responsibilities:

1. Under direct supervision of senior professional staff, provides entry level professional support services in a specialty field, as appropriate to the day-to-day operating objectives of the unit.
2. Assist in the planning and implementation of assigned projects; participates in projects and programs designed to develop professional skills and expertise appropriate to the needs of the organization.
3. Uses acquired knowledge and skills to carry out and complete project activities.
4. May undertake related academic studies or enrichment programs as appropriate to the specific objectives of the department.
5. Performs miscellaneous job-related duties as assigned.

Minimum Knowledge, Skills and Abilities Required:

- Must be a full-time student in an undergraduate or graduate program of study
- Ability to understand and follow specific instructions and procedures
- Ability to work both independently and in a team environment.
- Ability to communicate effectively, both orally and in writing.
- Knowledge of or familiarity with defined area of specialty.
- Ability to successfully interact with staff and students in a team environment.

Working Conditions:

Works in an environment where there is minimum exposure to dust, noise, or temperature. May be moderately exposed to unpleasant working conditions to include dust, noise, temperature, weather, petroleum products, and chemicals while visiting DART's operating facilities, assuming incumbent is observing all policies and procedures, safety precautions and regulations, and using all protective clothing and devices provided.

- Undergraduate students will be paid \$15.00/hr; work schedules will vary from 30 to 40 hours per week by department



Intern Program Schedule

Week	Date	Time	Room	Theme
1	6/10/2019	9 am - 11:00 am	HQ Atrium	Orientation
3	6/24/2019	11:30 am - 1 pm	DART Police	Tour of DART Police
5	7/8/2019	11:30 am - 1 pm	*Conf Room 1C	Lunch with DART Leadership
7	7/22/2019	11:30 am - 1 pm	*Conf Room 1C	Starting Your Career
8	8/1/2019	12:00 pm - 2 pm	HQ Atrium	Intern Luncheon with Direct Supervisors
8	8/2/2019			Last Day of Program

- Conference Room 1C is located on the first floor DART HQ 1401 Pacific Avenue



Student Internship Orientation

June 10, 2019

Agenda

Welcome | 9:00 am

Tammy Barrow, Interim VP of Human Capital

Student Presentation

Kronos Presentation | 9:15 am

Jill Dickson, HC Specialist-Training

GoPass | 9:30 am

Patrick McCurley, Business Analyst-Revenue

IT & Cyber Security | 9:45 am

Masha Duniphin, IT Learning Coordinator

Human Capital | 10:30 am

Students will be escorted by representatives to work assignments



DART Virtual Summer Experience Schedule

Week	Date	Time	Activity	Theme
1	7/13/2020	9 am - 10:30 am	Orientation	
1	7/16/2020	12:00 pm - 1 pm	Lunch & Learn	Confessions of an Intern
2	7/23/2020	12:00 pm - 1 pm	Lunch & Learn	Lunch with DART Leadership
3	7/28/2020	12:00 pm - 1 pm	Lunch & Learn	Resume Writing and Social Media
3	7/30/2020	12:00 pm - 1 pm	Lunch & Learn	Student/Supervisor Celebration
3	7/31/2020		Last Day	

- All events will be taking place via Microsoft Teams



DART Virtual Summer Experience Orientation

July 13, 2020

Agenda

Welcome | 9:00 am

Tammy Barrow, AVP of Human Resources

Kronos Presentation | 9:15 am

Kayla Thomas, Sr. Payroll Specialist

Marketing | 9:30 am

Robbie Douglas, AVP Marketing

IT & Cyber Security | 9:45 am

Masha Duniphin, IT Learning Coordinator

5 Star Service Presentation | 10:15 am

Teana Bush, Program Manager V

Human Resources | 10:30 am

Final Remarks



Directions for the 2019 Work-Based Learning Plan

The purpose of the learning plan is to set goals and expectations, to identify skills that can be learned on the job, and to assess growth at the end of the summer.

1

ORIENT STUDENT TO THE JOB

- Meet with student during the first few days to discuss the job description
 - Identify tasks, responsibilities, and projects and list them in the job description box using **version 3.0 (May 2018)** of the learning plan (not earlier versions)
 - Review employability skills (front page)
 - Identify and record 3-5 job-specific skills (back page)

2

ESTABLISH BASELINE FOR STUDENT SKILL DEVELOPMENT

- Rate student's initial skill level in each area using the 1-5 scale for **Review #1**
- Discuss your ratings with the student

*by Friday,
July 12*

3

SUBMIT REVIEW #1

- E-mail as a Word document (.doc/.docx) to WBLP@bostonpic.org
- Hard copies are not required

*by Tuesday,
July 16*

4

CONDUCT A MID-SUMMER CHECK-IN

- Meet with the student to discuss the experience to date
 - Does the student have enough work to do, or too much work?
 - Is the student's job sufficiently challenging?
- Discuss the student's progress on employability skills and job-specific skills
- Review and update the job description box
 - Include any new tasks, responsibilities, projects that the student may have taken on

*by Tuesday,
July 30*

5

REVIEW SUMMER EXPERIENCE

- Rate the student's skill level in each area using the 1-5 scale for **Review #2**
- Meet with the student to discuss your ratings and reflect on the job experience
- Suggest how the student might capture job responsibilities and new skills on a resume

*by Friday,
August 16*

6

SUBMIT COMPLETED PLAN WITH REVIEWS #1 AND #2

- E-mail completed plan as a Word document (.doc/.docx) to WBLP@bostonpic.org
- Copy the program coordinator at your organization, if applicable
- Hard copies are not required

*by Tuesday,
August 20*

If you encounter any student performance issues, please contact the program coordinator at your organization and/or the student's PIC career specialist as soon as possible.

Massachusetts Work-Based Learning Plan

Version 3.0 May 2018

Participant's Name: _____	Worksite Supervisor Name: _____
Participant's Email: _____	Worksite Supervisor Email: _____
Participant's ID Number: _____	School / Program: _____
Job Title: _____	Staff / Teacher Name: _____
Worksite: _____	Start Date: _____ End Date: _____

JOB DESCRIPTION – Tasks, responsibilities, projects:

EMPLOYABILITY SKILLS

The employability skills below are essential in every work environment throughout one's career. Please discuss and review these skills at least twice during this work-based learning experience, in a first, baseline review and in a second review near the end of the work-based learning experience. (Two reviews to capture growth -- Be objective!)

KEY

- 1 = Performance Improvement Needed: Needs to have a strategy to improve this skill
- 2 = Developing: Developing this skill; learning to address challenges related to this skill; aware of next steps needed to develop this skill
- 3 = Competent: Demonstrates this skill; aware of the importance of this skill
- 4 = Proficient: Consistently demonstrates this skill; shows initiative to learn about, enhance or apply this skill
- 5 = Advanced: Exceeds expectations; works with high level of independence, acts as a role model, or shows initiative to apply and extend this skill

SKILL	PERFORMANCE EXPECTATIONS	REVIEWS Use 1-5 Scale (See Key Above)	COMMENTS Notes, goals, and reflections for Review #1 and Review #2
Attendance and Punctuality	<ul style="list-style-type: none"> • Arrives on time and prepared for work • Provides sufficient notice if unable to report for work 	Rev #1	
		Rev #2	
Motivation and Initiative	<ul style="list-style-type: none"> • Participates fully in tasks or projects from start to finish • Initiates interaction with supervisor for next task or project upon successful completion of previous one 	Rev #1	
		Rev #2	
Communication	<ul style="list-style-type: none"> • Communicates effectively, orally and in writing, using the language and vocabulary appropriate to a variety of audiences within the workplace including coworkers, supervisors and customers • Demonstrates active listening skills; focuses attentively, makes eye contact or other affirming gestures, confirms understanding and follows directions 	Rev #1	
		Rev #2	
Teamwork and Collaboration	<ul style="list-style-type: none"> • Works productively with co-workers, individually and in teams; support organization's mission and goals • Accepts direction and constructive feedback with positive attitude 	Rev #1	
		Rev #2	
Critical Thinking and Problem Solving	<ul style="list-style-type: none"> • Notices and identifies challenges and problems that arise in the workplace • Brings concerns to attention of supervisors when appropriate • Develops solutions to challenges and problems by analyzing available information and looking at options, guided by expectations for the position and goals of the organization 	Rev #1	
		Rev #2	
Workplace Policy, Culture and Safety	<ul style="list-style-type: none"> • Exhibits understanding of workplace culture and policy • Dresses appropriately for position and duties • Practices personal hygiene appropriate for position and duties • Follows professional standards for use of computers, phones and social media • Respects confidentiality • Complies with health and safety rules for the workplace 	Rev #1	
		Rev #2	

Massachusetts Bay Transportation Authority/Massachusetts DOT

WORKPLACE & CAREER SPECIFIC SKILLS

Select three to five skills that will be a focus for this work-based learning experience. Choose from the following lists or identify other skills relevant to the specific workplace or career goals. Skill definitions are available in the resource guide and the online screens. See <http://massconnecting.org/wblo>

Career / Engagement Skills

- Active Learning
- Collecting and Organizing Information
- Creativity
- Customer Service
- Leadership
- Project Management
- Public Speaking / Presentations
- Teaching/Instructing
- Time Management
- Understanding All Aspects of the Industry

Digital Literacy Skills

- Computer Technology
- Database Use
- Graphic Design
- Media Literacy
- Office Suite Software
- Photo Editing
- Software Development
- Spreadsheet Use
- Web Development
- [Or industry specific technology]

Applied Academic Skills

- Applied Mathematics
- Reading
- Research and Analysis
- Writing

STEM-Related Skills

- Engineering Concepts
- Environmental Literacy
- Health Literacy
- Research and Analysis
- Science Lab Concepts

Technical / Career-Specific Skills

- Applied Arts and Design
- Blueprint Reading
- Child Development
- Cooking / Culinary Arts
- Early Childhood Math/Reading Literacy
- Equipment Operation
- Landscaping
- Maintenance / Repair / Painting
- Medical Office Skills
- [Or other skills applicable to the work experience]

SKILL	SKILL DEFINITION	REVIEWS USE 1-5 SCALE (See Key Above)		COMMENTS Notes, goals, reflections for Review 1 and Review 2
		Rev #1	Rev #2	
		Rev #1	Rev #2	
		Rev #1	Rev #2	
		Rev #1	Rev #2	
		Rev #1	Rev #2	
		Rev #1	Rev #2	

COMMENTS & REVIEW DATES

REVIEW #1:	REVIEW #2:
------------	------------

Fill in the *Review Dates* below to show when the participant and supervisor met to complete and discuss the two WBLP reviews.

Review #1 Date: _____ ; Review #2 Date: _____

WBLP Version 3.0 | REVISED May 2018 | Massachusetts Department of Elementary and Secondary Education Office of College, Career and Technical Education
Find the online and mobile versions of the WBLP and more resources at <http://massconnecting.org/wblo>

After the second review is completed, please email the Word version of this plan to WBLP@bostonpic.org.



Title: Auto Technician Intern
2020 Summer Intern Transportation Institute (July 7th-August 20th, 2020)

Department: Non-Revenue Automotive/ MBTA Operations

Salary: \$12.75 an hour

Job Summary: Intern will work on non-revenue vehicles and equipment. This includes repairs, troubleshooting and new vehicle preparation. Intern will attend professional development sessions and work on a variety of leadership projects.

Duties and Responsibilities:

- Perform duties and complete projects as assigned
- Adhere to the rules, regulations, and policies of MassDOT/MBTA
- Use and operate various types of equipment
- Work hours and location as assigned or directed
- Keep work area clean
- Input daily work into a log
- Be on time daily
- Be courteous and respectful towards all employees, customers, and ITI program personnel
- Give a PowerPoint presentation on internship experience working at MassDOT/MBTA at graduation, August 22nd

Minimum Requirements/Qualifications:

- Automotive Technology CTE student
- Experience in the repair of mechanical and electrical components of transportation vehicles
- The ability to work individually in a productive, ethical, professional manner
- Good level of time management, initiative, listening, and organizational skills

“ Most of what I have done has been a completely new experience, something I never thought I would be doing.”

“I’m happy that I received aid from all of you wonderful experts for me to improve my skills.”

“ Thanks for welcoming us and opening us up to a whole new field of work. I never know how much was involved with the inner workings of the T.”

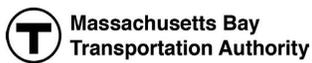
“We would love to thank you for the advice you’ve given us that will help us in our future as mechanics.”

“Thank you for being an amazing supervisor and for the amazing experience...gaining new experiences to help me decide what to do in the future.”



SUMMER 2019

INTERN TRANSPORTATION INSTITUTE





BENEFITS

Mentoring by industry leaders on: Paid, Full-time Internship from July 8th - August 22nd 2019
\$12/hr for 7 weeks, Mon-Thurs
Free transit pass for July/August



EDUCATION
OPTIONS



CUSTOMER
SERVICE



SAFETY



COMPUTER
SKILLS



LEADERSHIP



CPR/FIRST AID



FINANCE

On-The-Job Training

3 days a week
Supervised by experts
Meet vocational competencies
Real-world work experience

Career Coaching

1 day a week
Behind the scenes tours



LEARN THE SKILLS NECESSARY TO BEGIN YOUR CAREER IN TRANSPORTATION

Pre-Application

Minimum 2.0 GPA
Meet Co-op Attendance Standard
Letter of recommendation

Application Process

Submit application/resume/essay
"Why I want to work at MassDOT/MBTA"
MassDOT Interview
Orientation
Official application and paperwork
Meet with supervisor

FOR MORE INFORMATION

contact Penny Nickle
penny.nickle@state.ma.us

EXPECTATIONS

You are Cordially Invited to Attend



2019

**Intern Transportation Institute
Graduation Celebration**

12:00 p.m.

August 22, 2019

10 Park Plaza, Boston

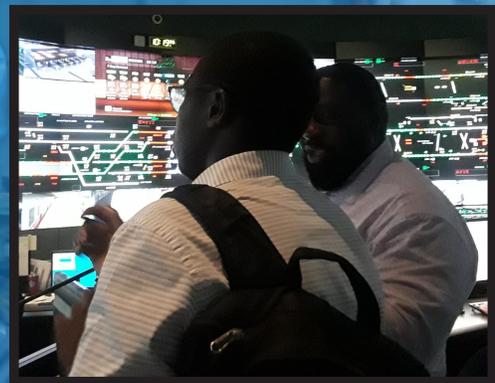
Conference Rooms 1,2,3

Lunch served followed by
Senior Leadership Guest Speakers

Jonathan Gulliver

Steve Poftak

Intern Presentations



Position Title: **PLANNER INTERN**
Department: PLANNING DEPARTMENT
Classification: NON EXEMPT
Safety Sensitive: NO



Position Summary:
This position will be responsible for bus stop data collection and other duties as assigned.
Reporting Relationships:
Position Reports to: Director of Planning and Development Direct Report By Title: None Number of Reports: None
Job Essential Functions:
<ul style="list-style-type: none"> • Bus Stop data collection using METRO-provided tablet-based equipment. Incumbent drive a METRO vehicle throughout Summit County and use the provided tablet to record location and attribute information at over 2,000 existing METRO bus stops (primary job function) • Data entry of passenger count sheets • Passenger counts via video • Other duties as assigned
Physical Requirements:
Job requires incumbent to stand, walk, sit, talk and listen and use hands to finger, handle or feel; view things at 20 feet or more one-third of the time; and lift up to 10 pounds. Work is typically performed outdoors and is occasionally exposed to adverse weather conditions, dust, fumes/odors and in proximity of urban vehicle traffic, requiring attention to personal and public safety. Contacts with general public, customers and other citizens and work deadlines are typical and can be stressful.
Position Requirements:
<ul style="list-style-type: none"> • Ability to use a computer for work procession and basic spreadsheet functions • Ability to read and follow street and bus route maps • Ability to carry out instructions • Ability to follow established procedures to resolve problems • Knowledge of techniques of effective time management • Ability to read and interpret documents such as safety rules, operations instructions and procedure manuals • Knowledge of correct English usage including spelling, grammar, punctuation and vocabulary • Ability to communicate clearly and effectively both orally and in writing • Ability to deal courteously and diplomatically with the general public
Core Values:
Teamwork <ul style="list-style-type: none"> • Demonstrating teamwork in and across departments • Treating everyone with respect

Position Title: **PLANNER INTERN**
Department: PLANNING DEPARTMENT
Classification: NON EXEMPT
Safety Sensitive: NO



- Recognize that the team is greater; much more than the collection of individual efforts
- Safety**
- Ensuring the safety of everyone
 - Believing that every accident can be prevented
 - Having a constant eye to safety in all aspects
- People Centric**
- Celebrating diversity/individual differences
 - Treating everyone fairly
 - Valuing everyone: co-workers, customers, each other, stakeholders
- Service Excellence**
- Providing the best customer service to everyone, both externally and internally
 - Routinely exceeding expectations
 - Serving our customers and each other
- Integrity**
- Always demonstrating honesty, trust, character and fairness without compromising the truth
 - Showing high regard for civility, equity/fairness and human dignity
 - Having the courage to do the right thing
- Action Ready**
- Sharing one goal, one mission
 - Keeping commitments
 - Giving more than is expected, willingly, without hesitation and without direction

Qualifications:

Position requires high school diploma or GED equivalent. Must have a valid driver's license with no more than 2 points.
Prefer degree in planning, engineering, or public administration.

The expectations will consist of 12 weeks of full-time work in an internship role that has an opportunity to extend based on need and performance within the department.

Opportunity will provide a compensation rate of \$13.00 per hour.

TO BE CONSIDERED FOR THIS POSITION, PLEASE SUBMIT AN APPLICATION TO THE HUMAN RESOURCES DEPARTMENT NO LATER THAN July 6th, 2018

**Mail: METRO RTA
Attn: HR Recruiting
416 Kenmore Blvd.
Akron, OH 44301**

**Fax: 216-937-0190 (old?) 330-594-5033 (Replace?)
Email: HRrecruits@akronmetro.org**

**POSTED: June 28th, 2018
This posting will be removed on July 6th, 2018**





MTA New York City Transit
Internship-Mentorship Program

Move ahead with us





(l to r) **Esan Rodney**, NYC Transit Manager, Accounts Receivable; **Sara Wei**, Accounting.



Sunil Joseph, Accounting, Payroll.



(l to r) **Shefiu Youssoufou**, Electrical Engineering Technology, Division of Electronics Maintenance; **Chanille Campbell**, Computer Systems, Division of Electronics Maintenance.

The Internship Program: Our History, Your Future

MTA New York City Transit established the Internship Program in 1981 and currently has a partnership with more than 200 colleges and universities throughout The United States, and Puerto Rico. Internships include paid and unpaid projects. The program has been a success for New York City Transit, colleges, universities and students. A minimum of 170 students who come from a wide variety of schools and diverse backgrounds participate in the program every semester. Since the program's inception, a considerable number of participants have been hired for full-time positions after graduation.

Collaboration for Moving Forward...

The mission of MTA NYC Transit's Internship-Mentorship Program is to provide students with meaningful work and mentoring experience, and managers with qualified talent, resulting in a win-win relationship between students and the organization. We value the energy, knowledge, and fresh ideas students provide, in exchange for the valuable career-building opportunities we offer.

Program Goals

- Provide a challenging and practical work experience, mentoring students with varied backgrounds, school disciplines and interests.
- Offer students opportunities to develop self-confidence while testing career options.
- Establish close relationships with the academic community, resulting in a "win-win" partnership for everyone.
- Create a talent base of prospective employees for New York City Transit.

Student Benefits

- Obtain valuable work experience desirable in the job market.
- Establish and reach goals for career development.
- Explore career options.
- Get an opportunity to establish a network of professionals in your chosen career field.
- Receive internship credit (contingent upon school program).
- Travel free on New York City Transit local buses and in the subway system.

Choose from a Wide Range of Disciplines

Our project managers have a variety of skills to share. Students can gain hands-on experience in the following areas and more:

Accounting

Architecture

Business Administration

Communications:

Broadcast Journalism; Television; Video; Film Production; Construction Management

Computer Science:

Information Technology; Telecommunications

Construction Management

Criminal Justice

Engineering:

Electrical; Mechanical; Environmental; Civil/Structural; Chemical; Systems; Computer; Communications

Finance

Graphics

Health (Occupational Health Services)

Human Resources:

Change Management/Organizational Development; Recruitment; Training

Journalism

Labor Relations

Law

Marketing

Psychology

Public Administration

Transportation Management

Urban Transportation Planning



Joel Gokool NYC Transit, Associate Staff Analyst, Office of the EVP, Human Resources



(l to r) Jessica Kavoulakis, NYC Transit Manager, Employee Programs; Abina Kellman.



Laura Azze-Singh,
NYC Transit Principal Transportation Planner,
Division of Operations Planning.



Tun Win, Mechanical Engineering,
Department of Subways.



Kimmy Nguyen, NYC Transit Staff Analyst II,
Disbursements.

Qualifications and Requirements

Unpaid Projects

You must be an undergraduate with 60 credits or a graduate or Ph.D student matriculating in a degree program, either part-time or full-time in an accredited university.

Students pursuing an Associates/two-year degree at a two- or four-year college must have at least 48 to 50 credits and need an internship as a requirement for graduating in the semester in which the internship is being done.

Although intern positions do not offer salaries, there are many benefits.

- Gain valuable training because you work with a mentor.
- Participate in projects related to your major and skill development.
- Establish a network for future NYC Transit employment opportunities.
- Demonstrate your potential to any recruiter who sees NYC Transit "hands-on" experience on a resume.

Paid Projects

- You must be a full-time student (undergraduate, 12 credits; graduate, 6 credits), matriculating in a degree program in an accredited college or university as a junior, senior, or graduate student. Ph.D students will be reviewed on a case-by-case basis.
- Paid interns may work between 20 and 28 hours (at least three but no more than eight consecutive hours per day) during the academic year and 35 hours during the winter (January) and summer breaks. Work days are generally Monday through Friday during normal business hours.
- Undergraduate students must have 60 credits to qualify and maintain a minimum 2.5 cumulative grade point average (GPA). Graduate and Ph.D students must have and maintain a cumulative GPA between 2.8 and 3.0.
- First-semester graduate students must have received an overall 2.5 GPA during their last semester as undergraduates.
- Students may participate in the Internship-Mentorship program as long as they remain in a matriculating status and continue to meet program requirements each semester.

How to Apply

Coordinator's Message:

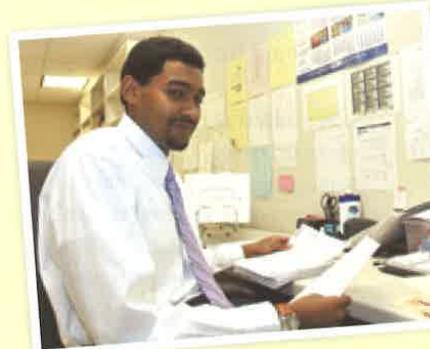
New students to the program must initiate the eligibility process with their career services coordinator/advisor. Internship coordinators/advisors whose students express interest in the Internship Program are requested to partner with NYC Transit to provide them with a valuable career development opportunity.

Coordinators/advisors who are not currently listed in the Internship-Mentorship program database must email their full contact information to studentprogram@nyct.com to obtain a user ID and log-on password to gain access to the Internship Online Web Portal.

Process:

- Coordinators/advisors in our database must input the following information in the online web portal for students to receive a user ID and log-on password to apply: Full name, phone number, email address, major credits earned, grade level (junior, senior, graduate student), expected graduation date, available hours and residency status. Upon completion, coordinators must SAVE then SUBMIT for the online information to be accepted.
- Students should make the following documents available to the coordinators/advisors to facilitate the process:
 - Updated resume
 - Unofficial transcript
 - Course schedule
 - Valid I-20 document for international students
- The coordinator need only input the student's information **once**. An unselected student who wants to apply/reapply in a different semester may email studentprograms@nyct.com to gain access. Students should not return to the coordinator once they have been entered into the system.
- Students will receive an email with a user ID and log-on within 48 hours of receipt of the coordinator's submission, providing access to paid and/or unpaid projects according to eligibility listed in the Qualification and Requirements section of the website. Go to internshiponline.mtanyct.info to review available projects. Up to 12 projects relevant to major/area of study may be selected. However, all projects must be submitted at one time.
- The student user ID and password remain active for up to 30 calendar days. If selections are not submitted within the 30 days, students must email studentprograms@nyct.com and ask for reactivation, including the reason(s) for the request. **Students need not return to the coordinator.**

continued...



Samson Rich, NYC Transit Senior Process Specialist, Business Service Center.



(l to r) **Tafsirul Islam**, Mechanical Engineering; **Samuel Giovannini**, Mechanical Engineering; **Dalyssa Hernandez**, Mechanical Engineering, Department of Capital Program Management. Pictured in front of  train, Broadway Junction train yard, Brooklyn.



(l to r) **Holly Dalton**, Music and Theater; **Jessica Mason**, Media Studies; **Nader Awad**, Film Production; **Abraham Nejad**, Communications, Department of Corporate Communications.

continued from page 4

- Only students of interest will be contacted directly by project managers to schedule an interview. **Resumes of unselected students will go into a database for review by managers who have unfilled projects.** Again, students need not return to the coordinator.
- Selected students will be sent an email inviting them to complete the eligibility process on-site. I-9 documentation will be required from the List of Acceptable Documents.

We acknowledge and appreciate the cooperation of school coordinators/advisors assisting in this process.



The Mother Clara Hale Depot in Manhattan.

Green Programs

– Sustainability at MTA New York City Transit

Did you know that New York City has the lowest per capita energy consumption and Greenhouse Gas (GHG) emissions in America? Public transportation and you – our customers – play a major role in contributing to a healthier environment. Each time you take an MTA bus, subway, or train, you help to keep more than 10 pounds of Greenhouse Gases from entering the atmosphere. What's more, we are developing programs in all areas to improve public transit and the environment. Here's what we are doing:

- NYC Transit and MTA Bus Company run one of the largest "green" fleets in North America with a combination of more than 2,400 hybrid electric and CNG (Compressed Natural Gas) buses.
- Approximately 6,604 tons – about 50 percent of refuse collected from our 468 subway stations – was recycled during 2013.
- We have replaced 65,000 signal lights in subway tunnels with more efficient, longer-lasting LED lights, saving energy, reducing carbon emissions, and decreasing maintenance needs.

LEED Buildings

Corona Subway Car Maintenance Shop

- The Corona Subway Car Maintenance Shop in Queens was NYC Transit's first facility to receive LEED certification in 2007 by the United States Green Building Council (USGBC). LEED, which stands for Leadership in Energy and Environmental Design, is an internationally accepted rating system developed by the USGBC to measure the sustainable elements of buildings.

Mother Clara Hale Depot

- The new Mother Clara Hale Bus Depot, designed as a LEED-certifiable facility, incorporates state-of-the-art "green" elements. The depot features a green roof, a solar wall, heat recovery units, rainwater collection, a water reclamation system, water-efficient fixtures, recycled materials, and more. We expect to complete construction in 2014 and receive LEED certification in 2015.

LIST OF ACCEPTABLE DOCUMENTS

All documents must be unexpired

LIST A

Documents that Establish Both Identity and Employment Authorization

1. U.S. Passport or U.S. Passport Card
2. Permanent Resident Card or Alien Registration Receipt Card (Form I-551)
3. Foreign passport that contains a temporary I-551 stamp or temporary I-551 printed notation on a machine-readable immigrant visa
4. Employment Authorization Document that contains a photograph (Form I-766)
5. In the case of a non-immigrant alien authorized to work for a specific employer incident to status, a foreign passport with Form I-94 or Form I-94A bearing the same name as the passport and containing an endorsement of the alien's non-immigrant status, as long as the period of endorsement has not yet expired and the proposed employment is not in conflict with any restrictions or limitations identified on the form
6. Passport from the Federated States of Micronesia (FSM) or the Republic of the Marshall Islands (RMI) with Form I-94 or Form I-94A indicating non-immigrant admission under the Compact of Free Association Between the United States and the FSM or RMI

OR

LIST B

Documents that Establish Identity

1. Driver's license or ID card issued by a state or outlying possession of the United States, provided it contains a photograph or information such as name, date of birth, gender, height, eye color, and address
2. ID card issued by federal, state or local government agencies or entities, provided it contains a photograph or information such as name, date of birth, gender, height, eye color, and address
3. School ID card with photograph
4. Voter's registration card
5. U.S. Military card or draft record
6. Military dependent's ID card
7. U.S. Coast Guard Merchant Mariner Card
8. Native American tribal document
9. Driver's license issued by a Canadian government authority

For persons under age 18 who are unable to present a document listed above:

10. School record or report card
11. Clinic, doctor, or hospital record
12. Day care or nursery school record

AND

LIST C

Documents that Establish Employment Authorization

1. Social Security Account Number card other than one that specifies on the face that the issuance of the card does not authorize employment in the United States
2. Certification of Birth Abroad issued by the Department of State (Form FS-545)
3. Certification of Report of Birth issued by the Department of State (Form DS-1350)
4. Original or certified copy of birth certificate issued by a state, country, municipal authority, or territory of the United States bearing an official seal
5. Native American tribal document
6. U.S. Citizen ID Card (Form I-197)
7. Identification Card for Use of Resident Citizen in the United States (Form I-179)
8. Employment authorization document issued by the Department of Homeland Security

MTA New York City Transit
HUMAN RESOURCES, Educational Resources Unit

web: <http://internshiponline.mtanyct.info>

email: studentprograms@nyct.com

ON THE COVER:

These faces represent a timeline of the Internship-Mentorship Program through the years. Many people are NYC Transit employees who began working with us during their college years and stayed with the agency.

400_14 cc

Be a part of
**OCTA'S
HIGH SCHOOL SUMMER
INTERN PROGRAM**



IF YOU HAVE ANY QUESTIONS
CONTACT:

KRISTYN ARCHER
SR. TALENT SPECIALIST
EXT. 5430

IF YOU WOULD LIKE TO REQUEST A HIGH SCHOOL INTERN FOR YOUR DEPARTMENT, CONTACT KRISTYN ARCHER ASAP.

*You will be required to submit a Personnel Requisition form in iCIMS no later than Thursday (2/21/19).

- ⇒ **6-WEEK**
- ⇒ **JUNE 3—JULY 12, 2019**
- ⇒ **15—20 HOURS A WEEK**
- ⇒ **STUDENTS MATCHED BY CAREER INTEREST**

CITY INTERN PROGRAM



Conference of Minority Transportation Officials
Moving the Nation



COMTO's **Careers in Transportation for Youth (CITY)** Internship Program provides minority college juniors and seniors with a unique opportunity to gain professional and practical experience in the transportation industry. Through the CITY Program, COMTO seeks to prepare the best and brightest to become leaders, decision makers, and change agents in the transportation industry. Interns will work, learn, and gain professional development and team-leading experience at transportation agencies or businesses, while exploring careers within the industry.

EXPLORE CAREERS IN TRANSPORTATION THIS SUMMER!

Internship Details

- June 4-August 9, 2019
- 36-40-hour work weeks
- \$15.00 per hour + transportation stipend
- Placement at a public transportation agency or private company with business in transportation
- Professional development webinars and trainings
- Transportation/lodging/meals/fees at COMTO's National Meeting & Training Conference in July

Apply Online October 19-February 25th at www.comto.org/city
All applicants will be notified March 2019

Intern Qualifications

- US Citizen
- Belong to an under-represented or minority group
- Rising college junior or senior currently enrolled full-time and planning to enroll full-time next fall at an accredited institution of higher education
- Minimum GPA of 3.0
- Able to successfully pass a background check
- Reside or attend school in/near the internship location
- Available to attend National Meeting & Training Conference from July 12 – July 16, 2019

Internship Possible Locations

- Jacksonville, FL
 - Los Angeles, CA
 - Orange, CA
 - Philadelphia, PA
 - Seattle, WA
 - Washington, DC
 - Tampa, FL
 - Detroit, MI
 - Chicago, IL
- MORE LOCATIONS TO COME!!!**

Contact Madeleine Colliere at mcolliere@octa.net or 714-560-5515 for more information



BART 2020 Virtual Internship Overview for Supervisors

What is BART's Internship Program?

For BART, internships provide an opportunity build relationships with High School and College students who are considering Transit as a career pathway, introduce the many varied career options our sector and organization provide, and build a pipeline of skilled talent for future recruitment.

Each summer, BART partners with several local Community Based Organizations (CBOs) to source qualified interns and works to provide each one with real-life work exposure and skills, mentorship, and professional development experiences such as classes, career panels and opportunities to present before organization leadership.

What is a Virtual Internship?

Due to the current public health safety orders surrounding the spread of COVID-19, we have worked over the last month with our CBO partners to craft a Virtual Internship Program for BART that will mirror our traditional program in creating valuable work and learning experiences for our interns, maintaining as much collaboration and interaction as possible through virtual classes, career panel and final presentations. We have developed this Virtual Internship Overview for Supervisors to help you devise a project-based learning plan for interns, even in this new remote environment. We have also developed a Work Plan template with discrete goals and timelines, and a guide for Interns to engage fully with BART technology tools. These will be shared with Interns and Supervisors as the program begins.

A Virtual Internship is conducted remotely using various technology tools such as phone, email and video conferencing. BART's technology tools such as Sharepoint and Microsoft Teams allow for real-time communication and collaboration between managers and their staff, and can also be used for intern project management and supervision.

The fundamental goals of an in-person internship can also be accomplished remotely, or virtually: gaining work experience and career exploration, being part of a team, enriching projects, building a community with other interns, and engaging in networking and mentorship opportunities are all possible using technology to connect.



Supervisor's Guide to Managing a Remote/Virtual Intern

The following tips and activities are provided to supervisors as *suggestions only* and to help envision how the day-to-day supervision of an intern would look in a remote/virtual scenario. Schedule, supervision and activities are at the discretion of the supervisor.



Technology

Microsoft Teams has created a whole host of new opportunities to use technology to keep teams cohesive and moving forward. Supervisors can use this technology to enrich their intern's experience and keep them on track. Here are some suggestions:

Welcome Intern on their first day

Hold a short virtual team meeting and round robin introductions

Manager/Intern Check in meetings

Hold weekly one-on-one check-in meetings with intern to check progress on project goals and objectives. These meetings do not have to be long. Set a standing agenda and ask your intern to come prepared to show their project progress. Give guidance and ask probing questions.

Part of the Team

Invite intern to all virtual team meetings and give them a task, such as note taker or monitoring the meeting "chat" feature.

Good Morning, Good Day, and Good Evening

Using Teams or email, you can ask your intern to check in with you daily when they report to work and at the end of the day before they sign-off. Keeping these communications in a single email, or chat thread will be helpful for you to track the intern's attendance.

Replicate the serendipitous water cooler chats, or "Office Pop-Ins"

These conversations and questions are crucial for an intern learning a new skill set and undertaking a new project. Create individual Microsoft Teams group chats with your intern and key members of your team and make a brief written introduction, so your intern feels they can "pop in" to ask a question or for help with their project without writing a formal email message, or going to the larger group if it is not necessary to do so.

Create a Support Network

Encourage your intern to reach out to you with questions and for guidance. Point them in the right direction through research or fact finding with colleagues. Let them know you have an "Open Door Policy" via your Teams Chat.

PROJECT-BASED LEARNING

Project-based learning is the key to any good internship experience. Giving your intern clear goals and objectives, and providing them with guidance along the way, will result in a finished project that will benefit you, your intern and BART.

Create a project and timeline-based experience for your intern.

By giving your intern one large-scale project, or several discrete projects that lead to a larger project goal, you are creating a framework in which to supervise, guide and help your intern gain new skills such as planning, time management, research and presenting work or findings.

Link smaller tasks to the bigger picture.

If your intern work plan is more task-based, help your intern see the bigger picture that their work contributes to. Help them envision how the research, data collection, or even digital filing project you have given them will help move BART and your team's goals forward when it is completed.

Set deadlines. Use them to track progress *and* completion.

Interns are not only learning job skills, they are learning to meet deadlines and to ask questions to determine what their project goal is. Use deadlines to track progress. Let your intern know that you would like to "see where they are" on a project via a virtual meeting in Teams. Use screen sharing to view your interns work. Share your own screen to give feedback and notes on how you would like their project to move forward.

NETWORKING AND MENTORSHIP

In the in-person work place, supervisors will often buy their intern lunch once throughout the summer program, or invite them to an open-ended chat to discuss their goals. This can still happen remotely.

Go "out" to Lunch

Invite your intern to "share lunch" with you over a Teams video chat to discuss their education and career goals.

Pick up the tab

Supervisors who choose to do so, can send a virtual gift card for food delivery to 'pick up the tab' for lunch that day, or even send a small gift card amount for coffee.

How the Workforce Team Will Support You

The Workforce Development Team will support yours and your intern's success throughout the program. Weekly professional development classes, a career panel, training and preparation for their final presentation, and a dedicated Teams group chat will be managed by the Workforce Team. As always, we are here to address any other issues that may come up.



BART Summer Internship Programs

The purpose of BART's Internship Programs is to promote:

- **Transportation careers**
 - Introduce the wide range of opportunities within our industry to high school and college interns.
- **Workplace readiness**
 - Provide exposure to the work environment and professional expectations.
 - Encourage further education and professional development through mentoring, career workshops, skill-building software and soft skill classes, and networking opportunities.
- **New transit entrants**
 - Create a pipeline of youth for career opportunities at BART.

Four Summer Internship Programs take place throughout the District each year:

- **District-Wide Interns** are high school and college students recruited by local Community-Based Organizations serving populations in BART's Service Territory. District-Wide Interns are placed by Human Resources into a variety of BART departments where they are assigned project-based learning and work experience objectives. Interns are paid a stipend through their sponsoring Community-Based Organization.
- **Rolling Stock & Shops** hosts students from targeted High Schools in the Oakland Unified School District. Interns complete a five-week program at BART's Hayward Maintenance Shop focused on maintenance trades and are paid a stipend through the Oakland Unified School District for completing the program.
- **Planning, Development & Construction** recruits students from community colleges and universities with career interests in Architecture, Construction Management, Engineering, Transit Oriented Development and Planning. Selected interns work on BART projects through all stages of planning, design, development and construction. Interns are paid hourly through BART's Construction Management partner.
- **Maintenance and Engineering** recruits 4-year college students currently enrolled in pursuit of a Bachelors' degree in Engineering. Interns work on wide-ranging projects within the field of engineering and receive exposure to many work teams within their assigned department. Interns are paid hourly through BART.

BART Human Resources hosts several enrichment activities throughout the summer for all interns such as site tours, career panels, networking events, and free professional development classes.



2020 VIRTUAL SUMMER INTERNSHIP SCHEDULE

WEDNESDAY, JULY 15
FIRST DAY OF INTERNSHIP & ORIENTATION
8:30am-12:30pm - Internship Orientation
1:00pm - Virtually meet supervisor, devise schedule and discuss Summer Project

THURSDAY, JULY 30
VIRTUAL CAREER PANEL
10:00AM - 12:00PM
Meet BART employees and learn about their career pathways.

WEEK OF AUGUST 10
FINAL PRESENTATIONS
Present your Internship project and findings to your manager, team and other interns.

BART SUMMER INTERNSHIP PROGRAM
July 15 - August 12, 2020
Project Manager: Stephanie Brown, Human Resources Workforce Development
510-390-3030 / sbrown4@bart.gov

Workforce Development, Human Resources



2020 Summer Intern Career Readiness Workshops

The Workforce Development Team is pleased to present our Summer Interns with a Career Readiness Workshop Series to enhance the BART summer internship experience. The workshops will span over the six-week program providing interactive and fun learning activities focusing on developing skills, increasing awareness and providing tools to young adults as they experience the work environment and prepare for their future. **While these are not mandatory, they are highly recommended and encouraged.**

Contact information for workshops:

Morgan Mallory at MMallor@bart.gov/510-464-6202 OR Stephanie Brown sbrown4@bart.gov/510-390-3030

Date	Day	Topic Description	Time	Location
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7/20/20	Monday	Multi-Generational Communications	9AM-12PM	Zoom
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Get equipped with the knowledge, tools and techniques to work successfully with people of all generations. Participation in this session will enable you to:

- Increase your awareness of the four generations currently in the workforce
- Understand the similarities and differences in the generations
- Learn strategies for communicating effectively with employees of all generations
- Identify potential sources of intergenerational conflict and techniques for managing them
- Recognize how age diversity benefits an organization

7/22/20	Wednesday	Building Your Professional Brand	9AM-12PM	Zoom
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Making a strong and favorable impression in the workplace is far more than following a list of "do's and don'ts." You must perfect an authentic professional image—your own unique "brand"—that's truly right for you and nobody else.

Professional branding is what you are known for in your work environment (i.e. achievements, contributions, etc.). Personal and professional branding are essential for the advancement of your career and as a leader. By attending this highly engaging and interactive course, you'll have the opportunity to assess your own image and see yourself as others see you. Supercharge your career and be seen as an ideal choice for career advancement.

7/27/20	Monday	Beginner Excel	9AM-12PM	Zoom
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In this course you will learn the purpose of Excel and the basics of formulas and worksheet construction. You will learn the difference between relative and absolute cell references, how to create simple formulas and functions; and you will lay the foundation for more complex functions in succeeding courses. You will create several worksheets including a budget which incorporate formulas, practice "what if analysis", practice printing techniques, and learn valuable keyboard and mouse shortcuts. Finally, you will learn basic charting techniques.

7/29/20	Wednesday	Interview Skills	10AM-12PM	Zoom
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"Preparing for your job interview could very well be one of the most important moments of your career. Just a little preparation and thought ahead of time can have wondrous effects on your interviewing skills. With some independent practice, this course can help you prepare successfully for any job interview!

This 3-hour workshop will include some of the following topics:

- Understanding Job Descriptions/Postings
- Pre-Interview Preparation
- Interview Techniques

San Francisco Bay Area Rapid Transit

- Non-verbal Communication
- Emphasizing Your Competencies
- Common Interview Mistakes
- Mock Interviews

7/30/2020 Thursday BART Careers Panel 10AM-12PM Zoom

“A career panel of BART employees has been brought together just for you from different departments and classifications across the District. These guest employees will be speaking to you about their educational background, career path leading to BART, and what their current roles and responsibilities are. They will also be available to share their unique experiences so that you can learn about various paths to transit-related careers.”

8/4/2020 Tuesday Presentation Skills 9AM-12PM Zoom

Learn and practice fundamental and advanced presentation skills. Included in the workshop are instructor-led exercises, group activities, and an extensive feedback process; all of these are designed to increase your comfort and competency when speaking in public.

- Learn How to Construct and Organize a Powerful Message that Sticks
- Develop Dynamic Delivery Skills and Connect with Your Listeners
- Overcome Anxiety and Gain Confidence when Presenting
- Maximize Your Impact with Body Language, Props, and Visual Aides
- Learn Best Practices for Q&A Sessions
- Practice and Present with Proven Preparation Techniques

8/5/2020 Wednesday How to Present in Teams 9AM-12PM Zoom

Updated to include skills to present online in Microsoft Teams! Public Speaking Skills will cover the elements of a speech including the opening, body, closing and Q&A. Students will learn how to polish their delivery, deal with disruptive behavior, and focus on effective verbal style. Reference to PowerPoint will be made in terms of appropriate slide design, using transition and animation effectively, and how to avoid over reliance on PowerPoint during a presentation.

8/7/20 Friday Final Presentation Practice Session

Join workforce staff and other interns to receive critique and feedback on your draft final presentation.

Week of August 10-12 Summer Internship Presentations

Present your internship project, findings and major takeaways from this summer experience to your department manager and other members of your team. (Individually scheduled)

OPTIONAL, SELF-PACED SKILL BUILDING COURSES:

INTRODUCING
60 NEW ON-DEMAND ONLINE COURSES

Continue your learning anywhere, anytime you have access to BART's network with new on-demand courses from Learnit!

Log into BART's learning environment, Pathlore, to have access to over 65 On Demand courses in software, soft skills and certificate exams. You can take these courses anytime, anywhere you have access to BART's network!

Visit ess.bart.gov and click "Pathlore Student Center" on the bottom page. Login with your Employee ID (on your badge). Password is 9999.

Candidate Name: _____ **Date:** _____

1. What do you know about BART and what would you like to gain most from this summer experience?
2. Please provide us with some examples of what specific features of Excel or other Microsoft products (Word, PowerPoint) you used on a project.
3. Tell us about a time at school or at work when you had to do a task that was routine or did not excite you. How did you stay self-motivated and to get the job done?
4. Describe a time at school or work when you were assigned a task without clear direction or enough information. How did you figure out what needed to be done?
5. Tell us about a time when you received feedback on your work that was not as positive as you had hoped. How did you respond?
6. What are the most important characteristics you need to work effectively as part of a team?
7. Tell us about your experience doing school or other work from home. What have been some of your successes and what have been some challenges?
8. Tell us about your technology set up. Do you have a computer with dedicated internet access? Do you have a desk and a quiet place where you can work privately for several hours at a time? Tell us about that.

INTERN MENTORING PROGRAM SUMMER 2019

HUMAN RESOURCES

Intern Program Lead: Marissa Yap

Program Coordinator: Alonzo Buckner

Mentoring Program Manager: Darla Vidger



About intern mentoring

Guidance and leadership development for our interns

INTERN MENTORS

During the course of our summer intern program, we would like to match a formal mentor to the interns who elect to participate in the program. Mentors play an integral role in the success of the internship experience. Sound Transit mentors act as a welcoming face of the agency, helping and supporting interns as they navigate the workplace and grow as professionals.

TIME COMMITMENT (6 MENTORING SESSIONS + TRAINING)

Intern mentoring begins with a 1-hour training session for both interns and mentors. Once interns are matched with a mentor, each pair attends a 1-hour mentoring goal-setting workshop where they develop and sign a mentoring agreement to ensure mutual understanding and commitment. Each mentor meets with his or her intern at least once every other week.

Mentor Requirements:

- Complete mentor questionnaire (for matching purposes)
- Serve in a formal or informal leadership role at Sound Transit
- Last performance rating was Successful or higher
- One year or more at Sound Transit
- Manager support for serving as an intern mentor
- Ability to invest time to meet for 6 sessions

MENTOR BENEFITS

Mentoring benefits everyone. As a mentor, the relationship offers many growth benefits outside of simply feeling good about helping others. Mentors have an opportunity to gain critical skills to improve as a leader. They learn how to bring out the best in others, recognize strengths and weaknesses, be diplomatic while getting results, give sound advice and be supportive, and most importantly, look within in order to make changes. Mentors are both leaders and role models for someone else, and that critical role often pushes mentors to strive for more, to be more helpful, and simply to be the best version of themselves.

About our intern program

Developing leaders for a new generation

PURPOSE

Sound Transit's Intern Program is designed to introduce Seattle's most promising college students to the rewards and challenges of working within an integrated transportation system.

GOALS

Internships are offered in various disciplines throughout the agency. These internships are critical in helping the agency achieve our goals of developing the next generation of leaders at Sound Transit and building greater access, diversity, and inclusion in the public transportation industry. These mutually-beneficial opportunities help interns develop skills and learn new concepts while we receive high-quality work that contributes to our overall mission and values.

Summer Intern Program Schedule

Group A: May 20 – August 15, 2019* (Approx. 7 participants)

Group B: June 17 – September 12, 2019* (Approx. 7 participants)

**Estimated end date*

BENEFITS

This is a paid program where interns can gain real-world work experience on meaningful projects under the guidance of transportation professionals. Interns have the opportunity to apply principles and theories they have learned in the classroom and understand how they relate to our work. Our interns use problem-solving, communication and decision-making skills to gain valuable experience. They can also work with a mentor for meaningful guidance.

As emerging professionals, interns will be exposed to Sound Transit's career paths in the public transportation industry. Interns will gain a deeper awareness of many facets of transportation through attending agency orientation sessions and working on cross-departmental projects and teams, as well as through internal networking.

Ultimately, our intern program will allow Sound Transit to develop a pipeline of talented individuals who become future ambassadors and even permanent employees.



Sound Transit offers internships in different disciplines throughout the agency. Students will have the opportunity to develop their professional skills with valuable hands-on and real-world experiences. As an intern with us – you will not only be part of the team but part of an agency that is shaping the Puget Sound area.

Sound Transit Internship Program

The ST Intern Program is designed to offer meaningful, practical work experience related to the student's field of study or career interest. This will allow students to apply principles and theory learned in the classroom in a professional environment. Aside from intern's job and responsibilities, the program offers other events and activities such as:

- Weekly Lunch and learns
- Lunch with CEO
- Site tours
- ST Expedition Tour
- Intern BBQ
- Final Intern Presentations
- Intern Mentor Program

Timeline

Group A: May 20 – August 15, 2019* (Approx. 7 participants)

Group B: June 17 – September 12, 2019* (Approx. 7 participants)

**Estimated end date*

Intern Mentor Program

In partnership with Learning & Capability –A mentor program designed specifically for Interns during the summer.



We're looking for interns who desires to be challenged, willingness to work in a fast-paced environment and have passion for their work.

Potential Internships with the different departments:

- Communications and External Affairs
- Executive (Human Resources, Safety and Quality Assurance, etc.)
- Operations
- Design, Engineering and Construction Management (DECM)
- Planning, Environment, and Project Development (PEPD)
- Information Technology
- Finance

More to be added in the coming weeks. Please visit <https://www.soundtransit.org/About-Sound-Transit/Jobs> for the latest information.

Sound Transit's commitment to Equal Employment Opportunity and Affirmative Action is visible throughout the agency. We are an Equal Opportunity Employer that values workplace diversity. We seek to create an environment and culture that embraces the differences of our employees. You will find an exceptionally diverse group of people at Sound Transit with regard to culture, beliefs, communication styles, and life and work experiences.



Art and Architecture Internship

2020

GENERAL PURPOSE: Sound Transit has an exciting internship available for the summer of 2019! This is a great opportunity for currently enrolled undergraduate students who want to observe and participate in real world application of their current field of study. This opportunity will allow the intern to gain valuable experience within the Public Art Program -- Architecture & Art division, under our Design Engineering & Construction Management department.

PRIMARY DUTIES AND RESPONSIBILITIES:

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

An undergraduate student entering their junior or senior year with the following:

- Demonstrated understanding and/or experience with archival practices, including cataloging and records management.
- Demonstrated understanding of contemporary art practices and interest in public art.

List potential projects that you may assign to the intern(s):

- Review existing STart Program paper and digital collections records and project files;
- Begin implementing STart archive retention strategies to address staff needs and conform with ST Document Control policies;
- Research existing ST archival storage options, recommend storage locations and populate those data sites using comprehensive archival practices;
- Perform special information management projects as assigned.

MINIMUM QUALIFICATIONS:

Applicants must be a current college students in good academic standing, enrolled in an accredited four year university Bachelor's Degree in Library Science, Arts Administration, Museum Studies (focus on Collections Management).

Preferred Qualifications:

- Ability to work autonomously within a team environment.
- Strong analytical abilities and attention to detail.
- Demonstrated ability to solve problems and work collaboratively.
- Excellent written and verbal communication skills, with an ability to draft succinct business correspondence.
- Working knowledge of Microsoft Word, Excel and PowerPoint

Physical Demands / Work Environment:

- Work is performed in a standard office environment.
- Subject to standing, walking, bending, reaching, stooping, and lifting of objects up to 25 pounds; may occasionally be exposed to dangerous machinery when visiting job sites during construction and when working in the field.
- The Agency promotes a safe and healthy work environment and provides appropriate safety and equipment training for all personnel as required.

Sound Transit is an equal employment opportunity employer. No person is unlawfully excluded from employment action based on race, color, religion, national origin, sex (including gender identity, sexual orientation and pregnancy), age, genetic information, disability, veteran status or other protected class.

Sound Transit (Seattle)

Agenda	Date	Time	Location
Intern NEO	June 17, 2019	8am – 2pm	705 fl 5 San Juan Island
*COMTO – Welcome Call & Orientation	June 19, 2019	11am – 12:30pm	Teleconference
*Intern Mentoring Program Kickoff (Interns)	June 18, 2019	1pm – 2pm	605 fl 1 South Hill
*Intern Mentoring Program Kickoff (Mentors)	June 20, 2019	2pm – 3pm	705 fl 5 Orcas Island
*Intern Mentoring Program – Goal Setting	June 21, 2019	10am – 11:30am	625 fl 2 Downtown
Lunch with CEO	July 1, 2019	12pm – 1:30pm	705 fl 5 Orcas Island
Lunch & Learn – DECM	July 3, 2019	12pm – 1pm	625 fl 1 Seattle Center
*COMTO National Conference	July 12 – 16, 2019	-	Tampa, FL
Lunch & Learn – PEPD	July 17, 2019	12pm – 1pm	625 fl 1 Seattle Center
Northgate Link Tour	July 22, 2019	TBD	Offsite
Lunch & Learn – OPS	July 24, 2019	12pm – 1pm	625 fl 1 Seattle Center
Lunch & Learn –DECM	July 29, 2019	12pm- 1pm	625 fl 1 Seattle Center
Lunch & Learn – InfoSec	July 31, 2019	12pm – 1pm	625 fl 1 Seattle Center
ST Expedition	August 1, 2019	7:25am – 3:25pm	Offsite
Intern BBQ	August 9, 2019	TBD	US fl 1 Sante Fe
Intern Presentations	August 14, 2019 (Group 1) August 16, 2019 (Group 2)	10am – 3pm	US fl 1 Ruth Fisher

- *Optional Program

Non-Technical

Degree	Hourly Min	Hourly Midpoint	Hourly Max
Bachelor's	\$17.00	\$20.00	\$23.00
Master's	\$20.00	\$24.00	\$28.00

Technical

Degree	Hourly Min	Hourly Midpoint	Hourly Max
Bachelor's	\$20.00	\$23.00	\$26.00
Master's	\$23.00	\$27.00	\$31.00

Intern Presentation

Preparation/Guidelines

Intern Presentation - Overview

Goal: To allow interns to present and share their summer internship experience with ELT members, peers, and hiring managers.

Interns: To create a PowerPoint presentation that provides an overview of your internship.



Presentation Guidelines

Sequence of presentation:

- Title Slide
- Self Introduction
- Overview of your internship here at ST
- Project List(s) that you have worked on
- Lessons Learned & Takeaways
- Q&A



Presentation Format

- PowerPoint presentation
 - Design copy will be provided to intern
- Images, illustrations, etc.
- Duration: Each presentation will be about 10-15 minutes

Tips

- Preparation is key
- Dress code – Business professional
- Think about the message
 - know exactly what it is you want your audience to know by the end of the presentation
- Think about your audience
 - tailor the presentation in order to keep your audience engaged
- Eye Contact
 - is key to connect with your audience and not lose their attention

Good Luck!!

Questions? Please reach out to universityrelations@soundtransit.org

Presentation Schedule

Session 1 – August 14, 2019		
10:00 a.m. – 10:15 a.m.	Rachel Buckland	DECM – Project Management
10:20 a.m. – 10:35 a.m.	Nada Albader	DECM – Project Controls
10:40 a.m. – 10:55 a.m.	Andrew Aplin	EXE – Internal Audit
11:00 a.m. – 11:15 a.m.	Cherry Arcilla	EXE – Human Resources
11:20 a.m. – 11:35 a.m.	Paul Bracken	IT – Information Security
11:40 a.m. – 11:55 a.m.	Kamiya Bryce	DECM – Architecture & Art
12:00 p.m. - 1:00 p.m.	BREAK FOR LUNCH	
1:05 p.m. – 1:20 p.m.	Asela Chavez-Basurto	PEPD – Planning & Innovation
1:25 p.m. – 1:40 p.m.	Gabriel Collins	EXE – Labor Agreement
1:45 p.m. – 2:00 p.m.	Daisuke Fukagawa	DECM – Construction Management
Session 2 – August 16, 2019		
10:00 a.m. – 10:15 a.m.	Dakota McGee	EXE - SQM
10:20 a.m. – 10:35 a.m.	Tasha Mok	IT – Service Desk
10:40 a.m. – 10:55 a.m.	Patricia Paulino	DECM – Civil & Structural Engineering
11:00 a.m. - 11:15 a.m.	Victoriya Polishchuk	DECM – Civil & Structural Engineering
11:20 a.m. – 11:35 a.m.	Michael Sea	DECM – Construction Management
11:40 a.m. – 11:55 a.m.	Abril Silva	CEA – Customer Outreach & Events
12:00 p.m. - 1:00 p.m.	BREAK FOR LUNCH	
1:05 p.m. – 1:20 p.m.	Nicholas Simone	DECM – Systems Engineering & Integration
1:25 p.m. – 1:40 p.m.	Allison Tran	DECM – Project Controls
1:45 p.m. – 2:00 p.m.	Archana VisWanath	EXE – Human Resources

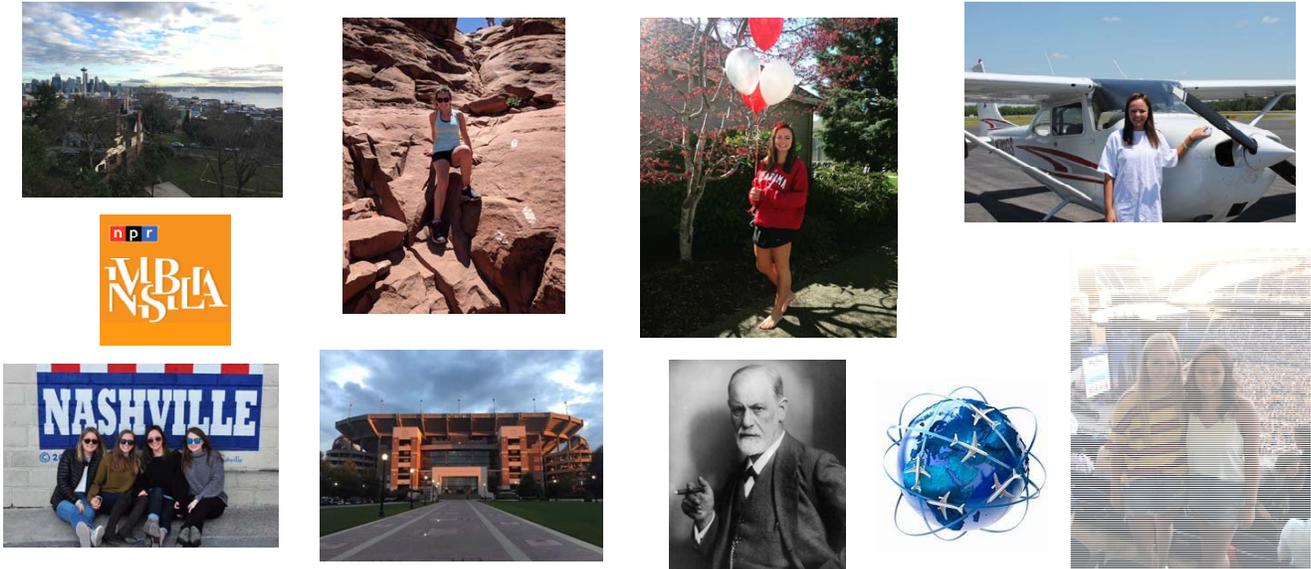


Intern Presentation

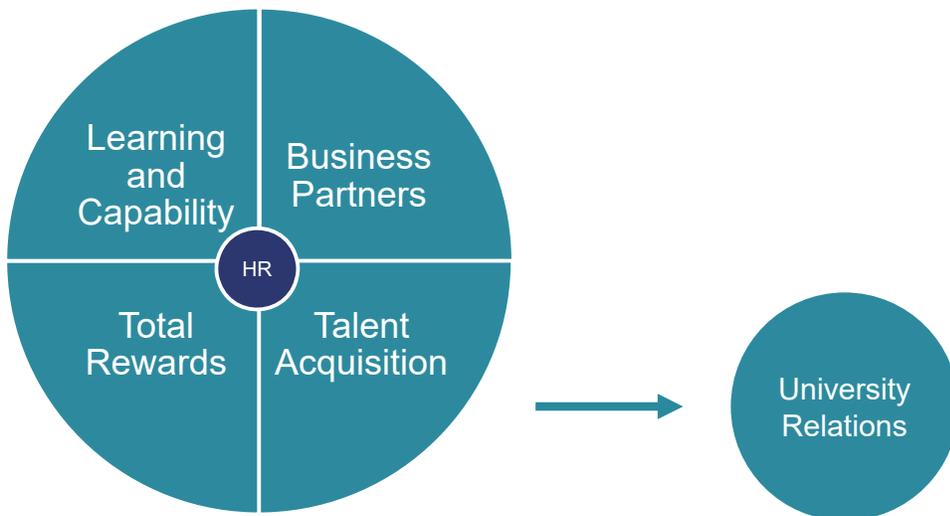
Markie Morrison
Human Resources Intern

July 11, 2018

Introduction



My Human Resources Internship



- 
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- 
von Seele, Emily
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emily.vonseele@soundtransit.org

Projects: Intern Directory

Summer 2018 Interns

Yasmin Everson

DEPARTMENT: Safety Assurance
COLLEGE / UNIVERSITY: University of Washington
MAJOR: Environmental and occupational health
HOBBIES: Volleyball, traveling and watching Netflix
FUTURE PLANS: Work as a safety specialist and possibly look into getting a master's.
FUN FACT: I can speak Japanese!

Tami Grende

DEPARTMENT: Events & Customer Outreach
COLLEGE / UNIVERSITY: University of Washington
MAJOR: Communications
HOBBIES: Tami, binge watching TV shows, long walks, mandala drawing
FUTURE PLANS: To take a gap year after college and travel around.
FUN FACT: I won junior Wimbledon in 2014.

Kiara Hickey

DEPARTMENT: Human Resources
COLLEGE / UNIVERSITY: Central Washington University
MAJOR: Business administration, specialization in human resources management
HOBBIES: Porelifting, enjoying the sun, eating my way around the world.
FUTURE PLANS: Landing a job as a human resources generalist or recruiter, buying a house and my first dog.
FUN FACT: I am bisexual and one of four girls.

Welcome, Morrison, Markie ▾

Human Resources
Departments
ST Life
ST Links

Search...

The Hub > Departments > Communications & External Affairs > Internal News > New HR program makes mentors of us all

New HR program makes mentors of us all

Sound Transit's new University Relations Program brings 14 summer interns to campus



Sound Transit interns tour the Northgate Link Extension construction site.

In the midst of Sound Transit's rapid growth and change, emerges a new program created to find and nurture the next generation of agency talent. Human Resources' Talent Acquisition team created the University Relations Program to bring bright college students with new perspectives to Sound Transit, and provide hands-on learning opportunities in exchange.

Managed by Senior Talent Advisor Marissa Yap and Talent Acquisition Coordinator Alia Howda, the program is welcoming 14 interns with diverse backgrounds and interests—all bringing a passion to learn, grow and help advance the work of the agency.

"The University Relations Program aims to give students real world experience and exposure to the transit industry," Howda said. "In turn, students bring their energy, passion, and a new perspective to our culture."

"We are eager to absorb knowledge and expertise from the agency, and start contributing to the fulfillment of Sound Transit's mission," said Marissa Morrison, an intern in Human Resources who supplied information for this story and created a directory of all of the new interns.

For each intern, it will be a summer filled with opportunities including site tours, networking events and lunch with Chief Executive Officer Peter Rogoff.

The Talent Acquisition team encourages everyone at the agency to get to know the interns and share professional work experiences. The new intern directory is available in the document tab below. Learn about where they go to school, their field of study, hobbies and other fun facts, and ask how they are doing when you see them on campus. Mentorship opportunities exist in every conversation.

Projects: University Relations





Projects: University Relations



Calendar

KEY: ■ General ■ Science, CS, Engineering ■ Student ■ Construction

August 2018 September 2018 October 2018

Su M Tu W Th Fri Sat Su M Tu W Th Fri Sa Su M Tu W Th Fri Sa

November 2018 December 2018 January 2019

Su Mo Tu W Th Fri Sat Su M Tu W Th Fri Sa Su M Tu W Th Fri Sa

Campus Recruiting Schedule

Fall 2018 (Summer 2019 Interns)

Information KEY: ■ General ■ STEM ■ Business ■ Construction

SCHOOL/ EVENT	SUBJECT	DATE	LOCATION	TIME	COST	REGISTRATION DEADLINE	DETAILS	CONTACT	REGISTERED
Seattle Choice Career Fair (SCCF)	General	Thursday Aug. 23	Seattle Center	11am-3pm			Register Here	Contact	No
St. Mary's University (SMU)	STEM	Wednesday Sept. 12	Norman Workington Conference Center (Lacey)	12:30pm-3pm	\$50 (\$200-\$300 for ad)		Register Here	Alyssa Nantais: anantais@seattleu.edu	No
St. Mary's University (SMU)	Business	Wednesday Sept. 19	Norman Workington Conference Center (Lacey)	12:30pm-3pm	\$50 (\$200-\$300 for ad)		Register Here	Alyssa Nantais: anantais@seattleu.edu	No
St. Mary's University (SMU)	Careers for the Common Good (social sci. edu. non-profit)	Wednesday Sept. 26	Norman Workington Conference Center (Lacey)	12:30pm-3pm	\$50 (\$200-\$300 for ad)		Register Here	Alyssa Nantais: anantais@seattleu.edu	No
Washington State University (WSU)	General	Tuesday Oct. 2	Bozinger Coliseum (Pullman Campus)	10am-3pm	\$450	Wednesday Sept. 19	Register on Handshake	wsucareer@wsu.edu	No



Intern Mid-Summer Survey



Projects: Website

Sound Transit Hub

Welcome, Morrison, Markin

Human Resources Departments ST Life ST Links

Welcome to ST Talent Acquisition

Our team is here to help ST hire and retain the best quality candidates. Below is an overview of the recruiting process.

Open Requisition <ul style="list-style-type: none"> Requisition Form Job Description Intern Request 	Posting <ul style="list-style-type: none"> Meet with Recruiter Duration of Posting Where will the job be posted? Post internally/externally 	Interview <ul style="list-style-type: none"> Final Guidelines Sample Behavioral Questions Management Individual Contributors 	Post Interview <ul style="list-style-type: none"> Submit Interview Notes Reference Check Background Check Compensation/Equity Evaluation 	Offer <ul style="list-style-type: none"> Salary Agreement Recommendation Verbal Offer Written Offer 	Hire <ul style="list-style-type: none"> Hiring Manager Checklist Admin Checklist
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Hiring Manager toolkit
Candidate toolkit
Job opportunities
Equal Opportunity
Sound Transit's Equal Employment Opportunity Policy Statement

July 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14

Contact Us

Powers, Linda
Dep Dir Talent Acquisition
206-499-4794
Linda.Powers@soundtransit.org

Hoescher, Andrew
Sr Talent Advisor

Projects: Recruiting

[Edit Exam Plan](#) [Audit Trail](#)

Exam Title	Compensation Analyst	Department	Executive
Exam Number	18-01431	Division	Human Resources
		Vacancies	0

Job Posting

Job #	Job Title	Status	Last Updated	Assigned To	Action
18-01431	Compensation Analyst	Continuous	06/29/18	Markie Morrison	Edit Archive Audit Trail

Recruiting Plan [Add New](#)

Ad Type	Ad Name	Requested Date	Start Date	End Date	Action
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Evaluation Steps [Add Step](#) [View Applicants \(25\)](#) [View Applicants by Step \(25\)](#) [App Flow](#) [Print Apps](#)

Step	Evaluation Step	Weight	Results	At Step	Action
Step 1	Application Received	N/A	View Results	19	Edit Audit Trail
Step 2	Minimum Qualification Screening	N/A	View Results	0	Edit Delete Audit Trail
Step 3	SME Review	N/A	View Results	2	Edit Delete Audit Trail
Step 4	Phone Screening	N/A	View Results	1	Edit Delete Audit Trail
Step 5	Interview #1	N/A	View Results	3	Edit Delete Audit Trail
Step 6	Interview #2	N/A	View Results	0	Edit Delete Audit Trail

Lessons Learned & Takeaways

- Stereotype of HR
- Complexity of a business
- Teamwork
- My work style



Questions?





Exit Interview

Employee Name:

Position:

Date of interview:

Questions:

1. Please describe your overall experience with the internship program?
2. How did the project that you worked relate to your studies?
3. What task was given that you can apply you knowledge and skills?
4. Describe the opportunities your manager provided for you to remain challenged and to think outside the box?
5. How often did you meet with your supervisor? Did they make their selves available to you to answer your questions?
6. Describe new skills, techniques and knowledge gained in this position.
7. What changes would you recommend to improve the internship program.
8. Discuss the most beneficial aspects of the internship program.
9. As a result of this internship program, do you intend to establish a relationship with fellow interns
10. Would you recommend this internship to other students

Please rank the following:

■ The Job itself

	Strongly Disagree	Disagree	Agree	Strongly Agree
Job was challenging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There were sufficient opportunities for advancement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workload was manageable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient resources and staff were available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your colleagues listened and appreciated your suggestions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your skills were effectively used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You had access to adequate training and development programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- What do you think can be improved about the job?

■ Remuneration & Benefits

	Strongly Disagree	Disagree	Agree	Strongly Agree
The salary was adequate in relation to responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wages were paid on time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other benefits were good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work-life balance was promoted and practiced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The company's superannuation fund returned good results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- What improvements, other benefits could the company offer?

■ The Company

	Strongly Disagree	Disagree	Agree	Strongly Agree
When you started, did the induction help and was it accurate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was a good and positive environment to work in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Had adequate equipment to do the work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sound Transit (Seattle)

Got on well with other staff within the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There were sufficient staff to cover the work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The company was efficient in it's dealings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal communication worked well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There was no bullying or harassment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are adequate parking facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The business did not discriminate against any employee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- What do you think can be improved about the Department and Company?

RECRUITING



CHOOSING TRANSPORTATION

2020 Choosing Transportation Summit
FedEx Institute of Technology, University of Memphis Main Campus

March 5, 2020

8:00-9:00 **Registration & continental breakfast/Vendor Expo**

9:00-9:30 **Welcome and Transportation Gameshow**

9:30 - 10:15 **Transportation Expo! (Group A - Lobby)/Meet Your Mode
(Group B - Fishbowl)**

***Expo:** visit with representatives from transportation companies and organizations throughout the midsouth representing public and private sector, all modes, and varied disciplines (business, computer science, engineering, logistics, supply chain, and much more). Exciting technologies and demos will be featured by each company.*

***Meet Your Mode:** learn about exciting careers in Rail-River-Runway-Road as you rotate through mode-themed tables of professionals in a speed-networking style session!*

Come prepared to ask questions and learn about exciting career paths in transportation!

10:15-10:30 **Break**

10:30 - 11:30 **Transportation Challenge - Methodist Presentation Theater**

Finalists present their projects before an audience of transportation professionals and student peers. Industry professionals will serve as judges to evaluate final presentations and select the Transportation Challenge champions!

11:30-12:15 **Transportation Expo! (Group B - Lobby)/Meet Your Mode
(Group A - Fishbowl)**

12:15-1:15 **Networking Luncheon and Awards Presentation - Lobby**

High school students join college students and industry professionals for an informal and engaging networking lunch, along with presentation of the Transportation Challenge Awards!

1:15-1:45 **Wrap-up discussion - Fishbowl**

CHOOSING TRANSPORTATION

2020 Choosing Transportation Summit
FedEx Institute of Technology, University of Memphis Main Campus
March 5, 2020

2nd Annual Transportation Challenge Competition

By Invitation Only:

High school student participants of the 2020 Choosing Transportation Summit are invited to compete in the 2nd Annual Transportation Challenge Competition. This year's event provides students with two options for the Challenge Project as outlined below. **Teams of 2-3 students will develop a research case and infographic to present to industry judges for the first round of the Competition. Finalists will present their projects before the judges and the attendees of the Choosing Transportation Summit on March 5, 2020.**

Topic Area 1: Tennessee Section Institute of Transportation Engineers - Distracted Driving Challenge

Distracted driving is a problem that affects all of us as we travel on streets and highways every day. Distraction can come from many sources, and creates an unsafe environment for both the driver (and passengers) and other vehicles, pedestrians, and bicyclists on our roadways. Because of the serious threat to safety that distracted driving creates, the Tennessee Section Institute of Transportation Engineers is issuing a Distracted Driving Challenge! Teams selecting this topic area will develop a research case documenting the problem, sources of distraction, latest statistics and research demonstrating the severity of the problem and a potential solution. Teams will use their research case to develop an infographic to convey the significance of this problem and to encourage drivers to keep their eyes on the road and hands on the wheel!

Topic Area 2: Environmental Impact of Transportation

Transportation is an essential part of our society – driving our economy and access to school, work, shopping and recreation. However, motorized transportation is a major source of pollution, whether considered from the standpoint of personal vehicles or the numerous modes of transport involved in the supply chain that ensures goods are delivered on demand. Teams selecting this topic area will select one mode of transportation and will develop a research case study that describes the problem, traces the environmental impact of the mode through the latest statistics and research, and identifies a potential solution to reduce the mode's environmental footprint. Teams will use their research case to develop an infographic to convey the significance of the problem and promote adoption of cleaner, greener transportation options!

Project Submission Requirements:

- **All students attending the Choosing Transportation Summit must submit a project for the Competition.** Teams selected as finalists will present their projects at the Summit on March 5, 2020. All other students will be part of the audience for the presentations, and will be allowed to vote for their favorite project, one in each category, to determine recipients of the Student's Choice Award.
- **Research Case.** Student teams will prepare a research case for their selected topic that includes the following:
 - Problem Definition and Personal Significance (Describe the problem you are exploring. Why is this problem important to your team? How does this problem impact our community?)
 - Research and Evidence (document findings that demonstrate the extent or significance of the problem)
 - Proposed Solution
 - Solution description (describe your proposed solution and present evidence (by citing current research) that demonstrates that this would be an effective and impactful approach to addressing the problem)
 - Target audience for marketing/education campaign through infographic (describe the audience that you are designing the infographic to reach- this is the group that you want to persuade to implement your proposed solution)
 - Target audience rationale (What groups did you consider for the target audience for your campaign? Why is the selected group the most important for sharing your findings? How could persuading this group to implement your solution make an impact on this problem?)
 - Marketing/education campaign deployment
 - Describe how your infographic should be shared to make the most significant impact
 - Reference list (use (Author, Date) format for citations within the research case, and Chicago Manual of Style conventions for citations in reference list.

The research case should have clear section headings for each of the required components, should be typed in size 11 Arial font, and should be no longer than 3 single-spaced pages, excluding references. Students should develop the research case to be persuasive to their point of view, and should support their case with proper citations from current research. The research case will be submitted electronically as a PDF.

- **Infographic.** Teams will develop an infographic to present their research case. The infographic should be designed to 11x17 print size, but will be submitted electronically as a PDF. The infographic should display the research case (problem definition, research and evidence, and solution). The infographic should be designed to be appealing to the target audience, and to encourage this audience to adopt your proposed solution. Appropriate citations should be included.
- **Presentation (finalists only).** Teams selected as finalists (4 per topic area) will present their research case and infographic before a panel of judges and attendees at

the Choosing Transportation Summit on March 5. Finalists will also be invited to a prep session led by industry representatives that will provide guidance on delivering an effective pitch to better prepare finalists for their presentations. Presentations should be no more than 5-7 minutes, should be designed to clearly and effectively convey your message, and should include the following components:

- **Team introduction**
- Problem Definition
- Research and Evidence
- Proposed Solution
- Recommended Audience and Campaign Strategy
- Presentation of Infographic with Rationale

Timeline:

Wednesday, November 20 at 3:30 pm – Interest meeting for teachers (will be held at the Herff College of Engineering, with a web option for those who cannot attend in person)

December 6 – Team registrations due (Registration Link: <https://bit.ly/2Clebdv>)

January 31 – Projects due (all teams, Round 1)

February 7 – Finalists notified

February 28 – Prep session for finalists

March 5 – Presentations (Finalists only, Round 2 – all other teams will be in audience) at Choosing Transportation Summit!

Scoring:

Entries and presentations from Teams will be scored based on the following rubrics. **The total score for each team will be based on the summation of scores from the research case, infographic, and presentations (finalists only).** Finalists will present their projects at the 2020 Choosing Transportation Summit before the judges and combined professional and student audience. Winners will be announced at the Summit during the networking lunch.

Scoring Rubrics

Research Case Criteria	Maximum Points Awarded
A clear problem definition is presented; personal/local contexts are conveyed	15
Research and evidence presented is compelling <ul style="list-style-type: none"> • Reputable sources are cited • A strong case is built for why this problem should be addressed 	20
Proposed solution is clearly described	15
A strong case is built for why this solution is appropriate for the problem	15
Logical and well-supported rationale for recommended audience is provided	10
Provides evidence that campaign strategy is appropriate for intended audience	10
Formatting requirements are met	15
TOTAL	100

Infographic Criteria	Maximum Points Awarded
Infographic clearly conveys the significance of the problem	20
Infographic provides compelling visualization of research and evidence	20
Proposed solution is presented in a compelling way for the intended audience	20
Graphics are original, and appropriate citations are used for statistics or other facts presented	10
Infographic is visually appealing and presents a coherent message	10
The infographic is professional in appearance	10
Infographic follows formatting requirements	10
TOTAL	100

Presentation Criteria (finalists only)	Maximum Points Awarded
Team presents a clear problem description, research and evidence, and proposed solution	20
Team presents a convincing argument for why their solution was chosen and how it addresses the problem	20
Team presents infographic and conveys why design will be compelling to target audience	10
Team describes campaign strategy and why it is likely to be successful	10
All team members participate in the pitch	10
Team members deliver pitch with enthusiasm	10
Presenters speak clearly and confidently	10
Presentation is within required time constraints (5-7 min)	10
TOTAL	100

Questions?

Contact Dr. Stephanie Ivey at ssalyers@memphis.edu

THANK YOU TO OUR SPONSORS!!!





Apply online at www.mtd.org

Currently accepting applications for:

Bus Operator

C-CARTS Operator

Maintenance II



Operators

MTD is seeking applicants for Operators.

Education Requirements

High school diploma or equivalent is required.

Experience Requirements

No driving commercial experience need!! We train!!!

Work Hours

Work shifts vary from day to night, as needed. MTD operates seven days a week, including weekends and some holidays, and this position may require work outside of traditional business hours. A minimum of 20 hours is required.

Other Information

Excellent benefits including zero-premium health insurance and a retirement plan. As with all MTD positions, candidates for this position must pass a pre-employment drug screen and physical.

Wage: \$14.00 during training.

Top Wage: \$33.79



FEAR NO PHONE



Do you want to help customers?

Customer Service specialists help customers read schedules, plan trips and assist them with their individual needs through special services. To work in Customer Service:

- You must be at least 18 years old.
- You'll need a high school diploma or GED.
- You must have a safe driving record with no more than two points on your license.
- You must pass a drug screen prior to employment and can be randomly drug tested after hire.
- You need to be willing to work with diverse groups of people in a fast-paced environment.
- You must have basic computer skills and a willingness to learn.
- No disqualifying felony/misdemeanor convictions.
- You need to like people!

Please reach us with your questions. We hope to hear from you soon, Telephone Titan!





RULE THE ROAD



Do you want to drive a bus?

It takes up to 12 weeks of intense training to be a bus operator. Our operators are the faces of METRO. Here's some of what it takes to rule the road:

- You must be at least 21 years old.
- You'll need a high school diploma or GED.
- You should have a temporary commercial driver's license with passenger endorsement when you apply.
- You must have a safe driving record with zero points on your license.
- You must pass a drug screen & functional capacity exam prior to & after hire.
- No disqualifying felony/misdemeanor convictions.
- You must be able to work flexible hours like split shifts, weekends & nights.
- You need to like people and give great customer service.

Please reach us with your questions. We hope to hear from you soon, Your Majesty!





TAME THE TOOL BOX



Do you want to fix buses?

METRO has many types of buses & our mechanics need to know how to fix them all. To be a bus mechanic:

- You must be at least 21 years old.
- You must be able to complete the two-year apprenticeship program.
- You'll need a high school diploma or GED, plus 1-2 years of trade school.
- You must be able to get a commercial driver's license with passenger endorsement.
- You must have a safe driving record, with no more than two points on your license.
- You must pass a drug screen & functional capacity exam prior to & after hire.
- You need to have your own tools & specific types of training on large engines.
- No disqualifying felony/misdemeanor convictions.
- You should be willing to work different shifts.
- You need to like people!

We hope to hear from you soon,
Wrench Wrangler!



LOOKING FOR A CAREER? DRIVE FOR US!



NJ TRANSIT OFFERS:

- Full benefit package including medical, prescription, dental and vision
- Pension plan plus 457 tax-deferred savings plan
- Continued medical benefits after meeting full retirement eligibility
- Starting pay rate of \$16.90/hour with top pay rate of \$28.16/hour
- Paid vacation and sick time
- Paid training and assistance obtaining your NJ CDL

\$6,000
Sign-On Bonus
CDL A & B Holders
with Passenger
Endorsement
and Air Brakes

WHAT WE ARE LOOKING FOR:

- 21 years of age or older, English proficiency, possess a high school diploma or GED
- New Jersey CDL OR a New York/Pennsylvania CDL with unrestricted airbrake and passenger endorsements, OR minimum of three years of non-provisional driving experience with a valid New Jersey Driver's License
- A safe driving record that is in good standing with less than five accumulated points
- A customer-first attitude, with ability to work days, nights and/or weekends



njtransit.com/drive

NJ TRANSIT is an equal opportunity employer.





Introducing Transportation Careers
to the Communities We Serve



Cypress Program Graduates:

Are you interested in a career in transit?

The San Francisco Bay Area Rapid Transit District (BART) and Cypress Mandela Training Center are announcing a great educational opportunity:

Transit Pathway Workshops



RESUMES DUE

June 2, 2019

FEATURED JOBS

Track Worker

and

Structures Worker

PROPOSED WORKSHOP DATES

July 29 to August 2, 2019

WORKSHOP BENEFITS

- BART Instructors
- Learn about Trade Tools and Equipment
- Hands on Exposure
 - Resume Tips
- Application Support
- Five Days of Instruction

For more information about
BART Job Opportunities or
to view Job Descriptions,
please visit:

www.bart.gov/jobs

**EMAIL YOUR RESUME BY JUNE 2nd TO
ERIC SHANKS AT eshanks@cypressmandela.org**

Participation in the BART Transit Pathways Workshop does not constitute a guarantee of employment.
Must be at least 18 years and a graduate or enrollee in the Cypress 16 week Green Pathways and Construction Program.

ATTACHMENT A
SCOPE OF SERVICES
AGREEMENT NO. 6M4684

TRAINING SERVICES FOR BART'S WORKFORCE DEVELOPEMENT

Consultant shall perform all services requested by the Project Manager which shall include, but are not limited to, all of the following:

OVERVIEW

Consultant is a nonprofit benefit corporation and shall provide life skills and technical training in order to promote the employability and job readiness of a diverse socioeconomic community at large.

BART is a heavy rail transit system agency serving the San Francisco Bay Area offering Transit Pathway Workshops to collaborate with community-based agencies in developing a skilled workforce needed for the transportation industry.

The objective of this program is to promote and educate Consultant's Green Pathways and Construction Training graduate candidates in the basic job duties and responsibilities of transportation jobs as well as preparation for the rigors of the competitive industry through administration of BART's Track Worker and Structures Worker Transit Pathway Workshops.

THE PROGRAM

1. The program will consist of the following key components that will be administered for completion:
 - a. Outreach and Candidate Identification;
 - b. Workshop administration; and
 - c. Case management.
2. Outreach and Candidate Identification
 - a. Consultant completes marketing and outreach to all interested candidates and identifies a pool of at least eight (80) successful graduate candidates having completed the Consultant's sixteen (16) week Green Pathways and Construction Training Curriculum and who are interested in the BART Transit Pathway Workshops. Graduates will have completed following:
 - i. Student Eligibility Criteria – Students selected to attend the Consultant's Green Pathways and Construction Training course must have met minimum eligibility requirements. Consultant is responsible to ensure students meet the following minimum requirements before entering in to the BART Transit Pathway Workshop programs:
 - a. Age 18 or older;
 - b. Possession of a high school diploma or GED;
 - c. Lawfully authorized to work in the United States;
 - d. Valid California Driver's License and a satisfactory driving record;
 - e. Must be willing to travel for work assignments; and
 - f. Must be able to lift at least fifty (50) pounds.

6M4684
2019

Attachment A
Scope of Services
Page 2 of 4

- ii. Work-keys assessment; Orientation.
 - iii. Accredited First Aid/CPR and AED certification.
 - iv. Up to ten (10) hours of physical education and training.
 - v. Instruction: technical, test preparation and soft skills, test administration.
 - vi. Graduate case management.
- b. Consultant shall complete administering phone screens, in person interviews and physical assessments of primary and alternate student candidates in preparation for candidate selection by BART staff. Consultant must communicate that participation in the BART workshop does not constitute a guarantee of employment.
- c. Consultant shall submit eligible resumes and proof of eligibility for BART pre-screening and selection for interviews. Consultant is responsible to ensure students meet the following minimum requirements before entering into the BART Transit Pathway Workshop programs:
- i. BART Transit Pathway Eligibility Criteria
 - a. Successful completion or active and current enrollment in Consultant's Green Pathways and Construction Training program. Course must have met minimum eligibility requirements;
 - b. Age 18 or older with a high school diploma or GED;
 - c. Lawfully authorized to work in the United States;
 - d. Valid California Driver's License and a satisfactory driving record;
 - e. Must be willing to travel for work assignments;
 - f. Must be able to lift at least fifty (50) pounds; and
 - g. Must be willing to work weekends and off-hours shifts.
 - d. Consultant to provide opportunity to BART to announce workshop opportunity prior to start of Consultant's Green Pathways and Construction Training Program.
 - e. Consultant shall provide use of facility computer classroom and conference rooms to BART to conduct a career readiness session, on-site interviews, and orientation sessions as needed.
 - f. BART shall review resumes provided by Consultant and conduct on-site interviews for selected candidates with the goal of selecting the following cohorts:
 - i. Track Worker Transit Pathway Workshop – 15 candidates.
 - ii. Structures Worker Transit Pathway Workshop – 15 candidates.
 - g. BART shall provide list of selected candidates to Consultant and will hold a 1 to 2 hours orientation session/career readiness workshop during the Consultant's Green Pathways and Construction Training Program to be held at the Consultant facility location.
3. Workshop Administration
- a. Consultant shall provide use of facility for BART storage and display of tool/equipment and classrooms to conduct workshops. Workshop class lengths are expected to be as follows:
 - i. Track Worker Transit Pathway Workshop – 5 working days.
 - ii. Structures Worker Transit Pathway Workshop – 5 working days.
Note: Some sessions may be combined for both cohorts.

- b. BART shall provide instruction: technical, test preparation tips and soft skills test administration with District personnel lead classroom and hands-on training. Field trips may be scheduled as needed.

4. Case Management

- a. Participation in the BART workshop does not constitute a guarantee of employment.
- b. In the event that cohort graduates are hired by BART into the classifications of Track Worker, Structures Worker, or other classifications, case management for each new hire will be initiated.
- c. Consultant to conduct case management up until eight (8) months after hire date.
- d. Consultant to assign a lead coordinator for contact and reporting of case management.
- e. Case management to include:
 - a. Frequency of coordinator check-in with hiring manager: monthly via pre-scheduled conference calls.
 - b. Frequency of interaction with new hire: every two (2) weeks.



Request for Quotation

The San Francisco Bay Area Rapid Transit District (BART) is seeking to enter into a one-year agreement, with an option to extend services for two additional years, for training and supportive services to strengthen the candidate pool for targeted classifications at BART.

Proposed Structure of Training

To expand the pool of qualified candidates for targeted classifications, BART is seeking to leverage existing pre-apprenticeship training programs, or other training programs that prepare disadvantaged jobseekers for careers in construction, janitorial, maintenance, mechanical, or other related sectors. BART staff will coordinate with the selected training provider to develop content and curriculum for a Transit Pathways Workshop (“Workshop”) specific to one or more targeted BART job classifications. Depending upon the targeted classification(s), the Workshop will be between one (1) to five (5) days in duration and will be embedded in or linked to the provider’s existing training program. The training provider must be based in Alameda County, Contra Costa County, or the City and County of San Francisco, and provide services to jobseekers in one or more of these counties.

The targeted BART classifications may include, but are not limited to, the following:

- Buildings Worker
- Electrical Helper
- Shop Machinist
- Shop Welder
- Storekeeper
- Structures Welder
- Structures Worker
- System Service Worker
- Track Welder
- Track Worker
- Train Control Electronic Technician
- Transit Vehicle Electronic Technician
- Utility Worker

Full Job Descriptions for these classifications, including minimum qualifications, can be found here:

<https://www.bart.gov/about/jobs/descriptions>

Services Requested

BART is seeking quotes to provide one cycle of cohort training that includes the following program elements:

- Assign a lead coordinator to coordinate all activities with BART staff.
- Coordinate with BART staff on training and curriculum development for a Transit Pathways Workshop for targeted BART classification(s).
- Conduct outreach with trainees or graduates of an existing pre-apprenticeship training program or related program to participate in the Workshop.
- Present twenty (20) candidates to BART that meet the minimum qualifications for the targeted classification(s) per training cycle, as well as the following qualifications:
 - Age 18 or older
 - Possession of a high school diploma or GED
 - Lawfully authorized to work in the United States
 - Valid California Driver's License and a satisfactory driving record
 - Must be willing to travel for work assignments and to work alternate shifts.
- Assist BART in facilitating one Workshop for at least ten (10) trainees per training cycle, in partnership with BART personnel (hiring managers of targeted classifications, recruiters, etc.), that is embedded in or linked to the provider's existing training program.
- Provide use of facility classrooms, conference rooms, and computers to conduct the Workshop, orientation sessions, and on-site interviews as needed.
- In the event that trainees are hired by BART, conduct case management services for eight (8) months with trainee following hire date.
- Provide quarterly reporting on activities and deliverables.

Qualifications

- The training provider must be based in Alameda County, Contra Costa County, or the City and County of San Francisco, and provide services to jobseekers in one or more of these counties.
- The selected training program must have a demonstrated history of administering at least five (5) cycles of the proposed training.
- BART will accept and review proposals on an ongoing basis until December 16, 2019.

For any questions, please contact:

Ronnie Rhoe
Manager of Workforce Development
Human Resources Department
rrhoe@bart.gov

San Francisco Bay Area Rapid Transit

2019 BART and Cypress Program Timeline

<i>Week Of</i>	<i>Date</i>	<i>Activity</i>	<i>Location</i>
	5/9/2019	BART Workshop Announcement	CalTrans Auditorium
5/28/2019		Cypress 16 week Training Begins	
6/3/2019	6/7/2019	Cypress Resumes Due to BART	
6/10/2019			
	6/14/2019	BART resume review & selection of interviewees	
6/17/2019			
6/24/2019	6/25/2019	BART Interviews held for Cohort Selection	Cypress Mandela Training Center
7/1/2019			
7/8/2019	7/8/2019	BART Track Worker and Structures Worker Jobs Posted this week	
7/15/2019	7/10/2019	Cohort Orientation	Cypress Mandela Training Center
7/22/2019	7/25/2019	Equipment Delivery and classroom setup	Cypress Mandela Training Center
7/29/2019	7/29/2019	BART Workshops Held This Week	Cypress Mandela Training Center
	8/3/2019	BART Job Interviews for Track Worker and Structures Worker	Cypress Mandela Training Center
8/5/2019			
8/12/2019			
8/19/2019	8/19/2019	Target for Conditional Offers Issued	
8/26/2019			
9/2/2019			
9/9/2019	9/12/2019	Cypress 16 Week Class Graduation, Target for Final Job Offers Issued	Cypress Mandela Training Center
	9/12/2019	Initial Case Management Meeting	Cypress Mandela Training Center



TTC's Trades Expo

The TTC is holding a **Trades Expo**. This is your opportunity to speak to TTC staff and recruiters, and learn about many exciting opportunities we have available in skilled, semi-skilled, apprenticeships, technical and revenue protection roles.

November 26 and 27, 2019
12 p.m. to 8 p.m.

**Montecassino Hotel and
Event Venue**
Salons C and E
3710 Chesswood Drive

The TTC's recruitment team will also be conducting on-the-spot interviews at the expo. **Please bring several copies of your resume.**

Please pre-register for the expo at Eventbrite.

The expo is easily accessible by the TTC. There is also limited free parking at the venue.

The TTC is committed to fostering a positive workplace culture with a workforce that is representative of the communities it services. Committed to the principles of diversity and inclusion, the TTC encourages participation from all job seekers. Accommodation is available for participants, including those with disabilities, throughout the expo.

To learn more and to create your candidate profile, visit www.ttc.ca/carecentre

Affiliate Programs:

Front of the Line Apprenticeship Program – To provide students with on-the-job training. A recognized program in which students will receive their apprenticeship accreditation through Centennial College; specifically, as a Truck & Coach Technician Apprentice.

Women in Skilled Trades – This program is designed to encourage more elementary students to look at the skilled trades and technologies as a first-choice career option. Participants in this program will:

- Explore (4) skilled trade sectors (construction, industrial, service, motive power)
- Learn about success principles
- Hear first-hand experiences from women in the trades
- Review goal setting and how it relates to decision making
- This is a Toronto District School Board Program

STEP to Transportation – *The Specialized Trades Exploration Program (STEP) To Transportation Program* provides youth with hands-on opportunities to discover the wide range of careers available in the Motive Power sector at the Toronto Transit Commission (TTC). Participants will have the opportunity to explore the following trades; Truck and Coach Technician, Auto Body Collision Repair, Electronics, Carpentry, Millwright, Metal Fabricator, Welder and more. This is a Toronto District School Board Program.



Behind the scenes at the TTC
Skilled and other trades

Behind the scenes at the TTC Skilled and other trades

Are you enthusiastic, motivated, dependable, skilled and team oriented? The time is now to consider the Toronto Transit Commission (TTC) for an exciting career! The TTC strives to ensure that its workforce is skilled and as diverse as the communities it serves. Employees receive training, competitive wages and comprehensive benefits.

Welcome to behind the scenes of the TTC

When people think of the Toronto Transit Commission (TTC) they think of subways, buses, streetcars, light rail transportation (LRT) and Wheel-Trans transportation safely getting them to and from locations across Toronto. These trips are safe because the TTC has thousands of employees behind the scenes. Their hard work and dedication have resulted in the TTC being named an award winning organization and transit system.

The TTC has made great strides in modernization and has become the world-class transit system that Toronto needs. We are advancing to the next level. We will be more inclusive, more efficient, more reliable, more accessible, more flexible, more innovative and more integrated. These are exciting times for the TTC! If you are enthusiastic, motivated, dependable and team oriented the TTC wants you to join its diverse team.

The TTC has numerous opportunities that will offer challenging and dynamic environments for skilled trades people. The TTC also offers paid apprenticeship programs that support educational and vocational training provided by many high schools, colleges and community agency partners. Below is a list of some behind the scenes jobs:

Skilled trades (Certificate of qualification required)

Coach Technician (310-T)
General Body Repairperson/Painter (310-B)
General Machinist (429-A)
General Maintenance Carpenter (429-A)
General Maintenance Electrician (309-A)
General Painter (404-C)

General Welder (456-A)
HVAC Mechanic (313-A)
Industrial Mechanic Millwright (433-A)
Metal Fabricator – Fitter (437-A)
Parts Technician/Storeperson (240-P)
Pattern Maker (443-A)
Plumber (306-A)
Roofer (449-A)
Sheet Metal Worker (308-A)
Steamfitter (307-A)
Tool and Die Maker (430-A)
Welder (456-A)

Apprenticeships (Some require certificate of qualification)

Apprentice – Cable & Telephone Technical
Apprentice – Coach and Automotive Technician
Apprentice – Electrician
Apprentice – Electrician Wiring and Service
Apprentice – Elevating Devices Mechanic
Apprentice – General Body Repairperson
Apprentice – Overhead Linesperson
Apprentice – Radio Technician
Apprentice – SCADA Technician
Apprentice – Signal Technician
Apprentice – Substation Electrician
General Body Repairperson Apprentice
Handyperson Apprentice

Semi-skilled

Air Bench Fitter
Axel Fitter
Electrical Bench Fitter
Light Rail Vehicle Technician Trainee
Rail Transit Car Mechanic Trainee
Rail Vehicle Analyzer
Revenue Equipment Attendant
Subway Vehicle Technician

Other skills

Equipment Operator Trainee
Grounds Maintainer/Landscaper
Trackworker
Track Maintainer Trainee
Track Welder Trainee
Transit Enforcement Officer
Revenue Protection
Workcar Operator Trainee

To apply, please visit ttc.ca/jobs. To receive information about specific trades, apprentices and their requirements, please visit www.collegeoftrades.ca.

**For once
I'm in the
driver's seat.**



**TriMet is proud
to be a sponsor
of the 2019
NW Youth Expo**

For career information
and opportunities,
please visit our booth.

TRIMET
trimet.org/jobs

TRAINING

Graduate Development Program

The Americas

Program Overview

- Two-year, self-directed program
- Learning and development of future skills
- Exposure to various business units and functions in P&PS, CMS, and CF
- Career pathing opportunities
- Exposure to high-level leaders
- Networking with other graduates

Core Focus Areas

Graduates will develop competency in core Jacobs focus areas through experience-based opportunities, engagement from others, and formal learning sessions paving the way for early growth and development.

 Innovation & Future Focus	 Business Dev. & Solution Sales	 Sustainability	 Inclusion & Connection
 Project Delivery	 Business Insight	 Discipline Specific	

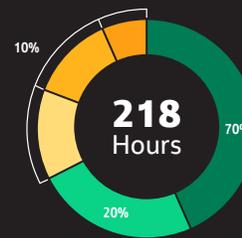
Jacobs Challenging today. Reinventing tomorrow.

Learning Model

70-20-10

- 70% of learning will be completed on the job
- 20% of learning will be completed through mentoring/coaching
- 10% of learning will be completed through formal learning courses

Time Commitment



- On the Job
- Coaching / Mentoring
- Formal Learning
- Graduate Conference
- Graduation Ceremony

VIC | VEHICLE INNOVATION CENTER

Our vision.

To be America's leader in the exploration and advancement of bus and coach technology connecting people to places.

Led in partnership by New Flyer of America and Motor Coach Industries, the Vehicle Innovation Center (VIC) opened October 2017 in Anniston, Alabama.

The VIC will lead America in the exploration and advancement of bus and coach technology connecting people to places. Through ongoing delivery of interactive experiences and collaboration with industry leaders, the VIC mission is to:



Explore and advance bus and coach technology through sustainable research and development, fresh innovation, progressive manufacturing, and bold thinking.



Foster dialogue through discussion, education, and training on the latest zero-emission, connected and autonomous driving vehicle technologies.



Engage learning through current and interactive exhibits, simulation and hands-on experiences, and observations.



Generate energy and commitment to clean air quality, safety, and economic benefits for people, communities, and business.



Harness the positive influence of collaboration, environmental stewardship, and social change to advance smart mobility solutions.



Putting the 'T' in tech.

Development of the VIC was supported by New Flyer of America and Motor Coach Industries (MCI) partners, each contributing interactive learning experiences that highlight the company's electric and autonomous vehicle technologies.

\$25
Million USD

Renovation and expansion completed in 2018.

50

Years experience manufacturing zero-emission buses (ZEBs)

50

Fabrication, manufacturing, distribution & service centers



First innovation lab in North America dedicated to the advancement of bus and coach technology.



We proudly employ **more American workers** than any other bus manufacturer in North America.

New Flyer of America



About NFI Group

NFI Group and its subsidiaries comprise a leading independent global bus manufacturer and parts distributor with 50 fabrication, manufacturing, distribution, and service centers located across ten countries and employing 9,000 team members.



NFI Group provides a comprehensive suite of mass transportation solutions under several brands: New Flyer® (heavy-duty transit buses), Alexander Dennis Limited (single and double-deck buses), Plaxton (motor coaches), MCI® (motor coaches), ARBOC® (low-floor cutaway and medium-duty buses), and NFI Parts™. NFI vehicles incorporate the widest range of drive systems available including: clean diesel, natural gas, diesel-electric hybrid, and zero-emission electric (trolley, battery, and fuel cell). In total, NFI now supports over 105,000 buses and coaches currently in service around the world.

- New Flyer is North America's heavy-duty transit bus leader and offers the most advanced product line under the Xcelsior® and Xcelsior CHARGE™ brands. New Flyer actively supports over 35,000 heavy-duty transit buses (New Flyer, NABI, and Orion) currently in service, of which 8,600 are powered by electric motors and battery propulsion and 1,900 are zero-emission.
- ADL is a global leader in the design and manufacture of double deck buses and is also the UK's largest bus and coach manufacturer. ADL offers single and double deck buses under the Alexander Dennis brand as well as Plaxton coaches.
- Motor Coach Industries is North America's motor coach leader offering the J-Series, the industry's best-selling intercity coach for 11 consecutive years, and the D-Series, the industry's best-selling motor coach line in North American history. MCI actively supports nearly 30,000 coaches currently in service.
- ARBOC is North America's low-floor, body-on-chassis ("cutaway") bus leader serving transit, paratransit, and shuttle applications. With more than 2,500 buses in service, ARBOC leads the low-floor cutaway bus market. ARBOC also offers a medium-duty bus for transit and shuttle applications.
- NFI Parts™ is North America's most comprehensive parts organization, providing replacement parts, technical publications, training, service, and support for NFI Group's bus and motor coach product lines.

Further information is available at www.nfigroup.com.

The common shares of NFI Group are traded on the Toronto Stock Exchange under the symbol NFI. For details and bookings, contact VIC@newflyer.com.

Official VIC partners:

VIC | VEHICLE INNOVATION CENTER



Training



World-class Training.

The New Flyer Institute and MCI Academy delivers world-class training to our customers. For decades, we have worked closely with customers to design and deliver training to improve skill sets. This allows you to invest in your employees and to provide more course content through different methods, giving you the flexibility you want.

Best-in-Class Features



CLASSROOM AND HANDS-ON TRAINING

Our instructors prepare your technicians to troubleshoot and repair your buses and coaches quickly and efficiently to keep them in revenue service. We can also create customized training aids.



eLEARNING

In addition to conventional classroom training, we also provide an eLearning component to better meet your needs. eLearning features engaging content with the ability to rewind so employees can work at their individual paces.

eLearning is delivered through a Learning Management System, which is "cloud-based" and not integrated with your existing IT infrastructure. All data is hosted on an external, fully-secured server with 24/7 access for you and your employees.



ACADEMY

MCI Academy Certificate and Diploma programs have been created to develop different skill sets. Certificate courses are available to progress technicians to a Level 1 Mechanic. Diploma programs consist of intense, in-depth training on heating, ventilation and air-conditioning (HVAC), and electrical systems.

For more information about our programs and any associated costs, contact your training representative.

READY TO LEARN? Contact Darryl Desjarlais, Training Manager for New Flyer Institute at 204-934-4875 or darryl_desjarlais@newflyer.com
Contact Scott Crawford, Training Manager for MCI Academy at 502-318-3012 or scott.crawford@mcicoach.com



U.S. & Canada
800.665.2637



U.S. 800.323.1290
Canada 800.665.0155
partsstore.mcicoach.com

METRO CDL STUDY GUIDE



35' & 40' Gillig Low Floor

Metro C.D.L. Pre-Trip Inspection

The pre-trip examination begins with examiner's instructions. You will be asked to describe what you are doing as you conduct the inspection. Remember, your first job is to demonstrate to the satisfaction of the examiner, that you know how to do the inspection. You will be talking to the examiner throughout the inspection, make sure that you speak up.

While the elements of the inspection can be done in any order, we suggest that you use the order viewed on the DVD. You have 30 minutes to complete the vehicle inspection test.

Approach Bus



- Looking For:
- Is bus leaning/ level?
 - Any obstacles or people around or under bus?
 - Fluid leaking from bus?
 - Listen for air leaks

Left Front



- Condition/ Mounted
 - Mirror/ Arm
 - Driver's Window
 - Steering Box
hydraulic lines
 - Steering Linkage
pitman arm
drag link
control arm
king pin
joints & bushings
- *see "Steering Box Inspection" page*

Front of Bus Inspection



- Marker Lights
- Destination Sign
- Windshield
Condition/ Mounted
- Wipers
- Washer Fluid Door
Hinged & Riveted
- Washer Fluid
Check & Fill
- License Plate
- Headlights
- Turn Signals
- Bumper
- Bike Rack

Right Side Front



- Mirror/Arm
- Door, Hinged/Riveted,
Windows, Condition
and Mounted
- Turn Signal
- Lift Light
- Courtesy Light
- Marker Light
- Passenger Windows

Right Front Tire



- Fender Skirt
- Mud Flap
- Tread Depth 4/32
- Even Tread Wear
- No Recaps or regroove
- All Bias or Radial
- Side Wall A.B.C.
- Wheel
- Beauty Holes
- Valve Stem
- Tire Pressure 110 PSI
- Lug Nuts
- Hub Oil Seal
- Suspension Parts
- Listen For Air Leaks

Right Side Middle



- Advertising Sign
- Reflector
- Courtesy Lights
- Rear Door Condition/ Mounted
- Fuel Compartment Door/hinged& riveted Cap/ tight, no leaks Tank/ strapped, no leaks



Right Rear Tire



- Fender Skirt
- Mud Flaps
- Tread Depth 2/32
- Recaps /Regrooved Allowed
- All Bias or Radial
- Sidewalls A.B.C.
- Wheel/Rim
- Duals
- BUDD System
- Beauty Holes
- Valve Stem 110 P.S.I.
- Lug Nuts
- Axle Seal
- Suspension Parts
- Listen For Air Leaks

Rear of Bus



- Exhaust Pipe
- Marker Lights
- Advertisement Sign
- Turn Signal Lights
- Brake & Tail Lights
- Back Up Lights
- License Plate & Light
- Bumper / Level?
- Fluid leaks? Air leaks?

“Rear Engine Door is Hinged and Riveted to body of bus.”

1. **Surge Tank**- This is where I check and fill engine coolant when cool, it is capped and not leaking. (sight glass)
2. **Hoses**- I want to make sure the hoses are clamped securely, not leaking, free from bulges or cuts.
3. **Inside Exhaust** -check for damage and signs of leaks, rust or carbon soot. Attached with clamps.
4. **Water Pump**- I'm checking to make sure that the water pump is (1) Bolted securely (2) Not leaking water (3) Belt driven..
5. **Engine Oil Dipstick**- I would pull out the stick, wipe it off, reinsert it, pull it out, level must be above refill mark.
6. **Oil Fill Tube** -This is where I would add engine oil if needed. (not running)
7. **Transmission Fluid** -This is where I would check and fill. Pull out the dipstick, wipe it off, reinsert it and pull it out. Level must be above refill mark (I would do this with the bus running if specified by the manufacturer.)



8. **Alternator**- I'm checking to make sure that the alternator is (1) Bolted securely (2) Belt driven, also check to make sure belt has no more than 3/4 inch play at center of belt. No loose wires.
9. **Air Compressor**- I'm making sure the air compressor is (1) Bolted securely (2) Not leaking air (3) Gear driven. (It's right below the fuel pump which is below the alternator- hard to see!)
10. **Power Steering Pump** -I'm checking to make sure that the power steering pump is (1) Bolted securely (2) Not leaking power steering fluid (3) Gear driven. (It's next to the air compressor.)
11. **Power Steering Fluid Reservoir**-(1) Bolted securely (2) Not leaking Power steering fluid. I would pull out the dipstick, level must be above refill mark; add power steering fluid here.
12. **Air Conditioning Compressor**- (1) Bolted securely (2) Belt driven, check to make sure belt has no more than 3/4 inch play at center of belt.



13. **Wires**- I'm checking all wires to make sure they are properly insulated and connected.
14. **Transmission**- "If I had a Pit or a Lift, I would check to make sure the transmission is (1) Bolted securely (2) Not leaking transmission fluid (3) Gear driven."



Left Side of Bus-
Inspect the Same as Right Side (Must say!)

Entry Steps



- Condition of Floor
- Handrails
- Courtesy Lights
- Fire Extinguisher (ABC)
- 3 Safety Triangles
- Circuit Breakers (3 Spare Fuses)
- Inside Mirrors



Interior



- Seats
- Handrails
- Flooring

Rear Exit

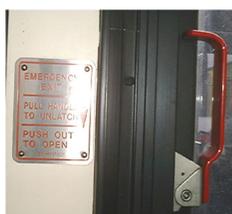


- Flooring
- Courtesy Lights
- Handrails
- Rear Interlock
- Mirror



Emergency Exits

- Roof Hatch
- Window Exits



Driver's Compartment

- Driver's Windows
- Inside Mirrors
- "Mirrors adjusted for me."



Driver's Side Panel



- Seat Belt
- Air to Door Lever
- Transmission Lock-out
- Mirror Controls
- Parking Brake
- Master Switch
- SAFE START
- Engine Start Button
- Fast Idle Switch
- Hazards
- EPM Override Switch
- Interior Lights
- Passenger Signal
- Transmission Key Pad



Dash Left



- Driver's Booster Fan
- Panel Lamps
- Washer/ Wiper
- Climate Control
- Driver's Temp/ Air Flow
- Heater/ Defroster Fan (**feel for heat!**)

Dash Center



- Air Pressure Gauge
 - Speedometer
 - Fuel Gauge
 - Oil Gauge
 - Temperature Gauge
 - Voltage Gauge
- **Give Readings!****

Dash Right



- Coolant Heater
 - Retarder
 - Rear & Front Step Heaters
 - Engine Test Switch (maintenance)
 - Kneel Switch
 - W/C Lift Controls-
- **Demonstrate****

Steering Wheel & Horn



- No more than 2 inches of play in a 20 inch wheel
- Sound horn !

Pedals and Floor Switches



- Accelerator Pedal
- Brake Pedal
- Turn Signal Switches
- High Beam Switch



WARNING LIGHTS & BUZZERS



“ I do have ABS Brakes”

Parking and Service Brake Test



With parking brake engaged, place transmission in drive and apply accelerator. Parking brake should hold against slight acceleration.



Place coach in drive and disengage parking brake, roll forward and apply service brake to ensure proper braking. Steering should not pull to the left or right. If so it could mean alignment problems. **Leave parking brake off for the remainder of the test.**

Compressor Test

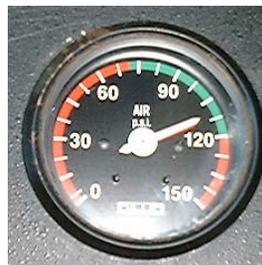


Bleed air pressure by repeatedly pressing brake pedal until pressure is below 90 psi. Compressor should cut in at or around 90 psi.



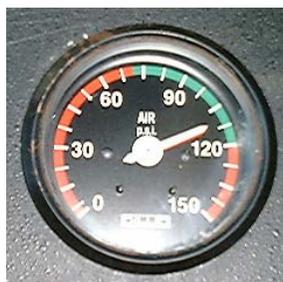
Let air build, the Compressor should cut out at or around 120 psi.

Static Air Pressure Loss



Shut coach off then turn the ignition “ON”. With “no brake” applied, check for air loss of no more than 2 psi in 1 minute span. **Make note of no air loss.**

Full Application Pressure Loss



Press brake pedal fully and hold down for 1 minute, and (after the initial loss) check for air loss of no more than 3 psi in a 1 minute span. **Make note of no air loss.**

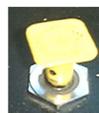


Low Air Test



Bleed air pressure by repeatedly pressing brake pedal until low air warning light comes on at or around 60 psi. (buzzer only when bus is running.)

Continue bleeding air pressure and the parking brake should engage at 50 psi or above.



“This concludes my Air Brake test.”

Basic Control Skills Test

OUTSIDE LIGHTS

- FRONT**
- Marker Lights
- Hazard Lights
- Turn Signals and Side
- Headlights/High Beam
- REAR**
- Marker Lights
- Brake Lights
- Hazard Lights
- Turn Signals
- Tail Lights
- Backup Lights



The goal of the Basic Control Skill Test is to demonstrate your skill and ability to judge your buses position in relation to other objects. This will be accomplished by maneuvering your bus through a course created with cones to simulate conditions you may encounter. The course includes:

- Straight Line Backing
- Offset Backing
- Alley Dock
- Parallel Park

Parallel Park

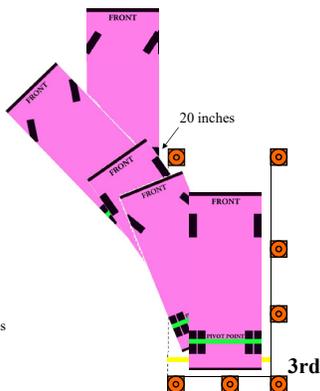
Engage hazard lights, sound horn and back the bus straight and parallel approx. 20 in. from opening, stopping when pivot point reaches first cone.

Remain stopped while turning wheels right as far as possible.

While holding your turn continue backing until 3rd cone is just visible in driver's side (left) mirror.

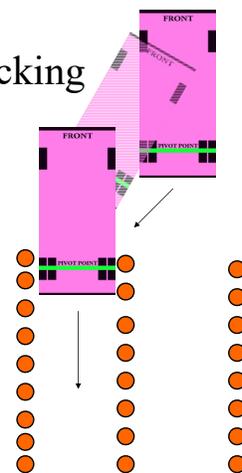
Once you see the 3rd cone stop and straighten wheels, resume straight back approx. 6 ft. keeping 3rd cone just visible in mirror.

Watch out right side door for bumper to clear front cone. Once clear turn hard left and bring front of bus into box, stopping when right side is parallel to line. Straighten wheels, set parking brake, place bus in neutral and sound horn.



Offset Backing

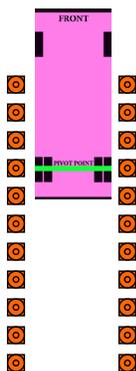
- Drive forward then back the bus into the opposite lane (left or right) until the front of the bus has passed the first set of cones.



Straight Line Backing

Pull bus through cones.

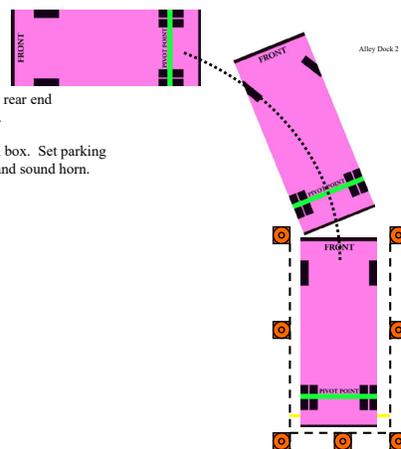
Back bus through cones.



Alley Dock

Back the bus by making the rear end follow the dotted black line.

Back until rear bumper is in box. Set parking brake, place bus in neutral and sound horn.





Goals and Expectations for FY2021

NAME of EMPLOYEE _____

JOB TITLE _____

This form is to help assist with laying the ground work for setting upcoming goals and expectations for the upcoming fiscal year. This form documents the plan set forth between you and your immediate manager and/or supervisor for the upcoming year. The expectations listed should be realistic and obtainable objectives in the aligned with the MST Board adopted FY 2021 Action Plan. Goals and expectations listed will be used to help evaluate performance for next fiscal year's performance evaluation period.

I have read and understand the content within this action plan. I also acknowledge receipt of this document.

EMPLOYEE'S SIGNATURE: _____ DATE: _____

SUPERVISOR'S SIGNATURE: _____ DATE: _____

MANAGER'S SIGNATURE: _____ DATE: _____

HR'S SIGNATURE: _____ DATE: _____

DEPT. HEAD'S SIGNATURE: _____ DATE: _____

Department Goals:

Below is an outline of goals and expectations for the whole department. The department goals are aligned with the action plan and fiscal year objectives adopted by the MST Board for the district in this upcoming fiscal year.

1.

Individual Goals:

Discuss performance goals for tasks and special projects for the next review period. Describe outcomes desired and specific, measureable, achievable goals for the period. The individual goals should be aligned with department goals in mind. Developing these goals and objectives will help to provide clear guidance and communication around work responsibilities and objectives.

Next Performance Review Period is scheduled (month/year) July 1, 2020 to June 30, 2021

Goals and Objective:

1.

Training and Development Needs to meet Goals and Objectives for FY2021:

1.



Become a MaBSTOA Bus Operator

**Apply between August 23 - Sept. 30, 2019
to take Exam No. 0100**

**Join MaBSTOA as a Bus Operator and become part of the
MTA Bus fleet modernization plan.**

The starting salary is **\$23.84** per hour for a 40-hour week, plus night and weekend salary differentials. *Rates are subject to change.*

We offer an **extensive benefits package**, including:

- Paid vacation • Holiday and leave programs • Comprehensive medical coverage • Pension plan

Requirements:

1. A "Class B" Commercial Driver License (CDL) valid in New York, with passenger endorsement and no disqualifying restrictions that would prevent you from performing job duties; **OR**
2. A motor vehicle driver license valid in New York for a minimum of three years by the time of appointment and a CDL Learner Permit with passenger endorsement and no restrictions as referenced above.

During the application period, you may apply online or view the Notice of Examination (NOE) at new.mta.info/career. Additional information may be obtained at the following location:

MTA New York City Transit Examinations Information Center
180 Livingston Street (Lobby), Brooklyn, NY 11201
Monday through Friday, 9 AM to 3 PM (except holidays)
Applications **will not** be accepted at the Exam Information Center.



We encourage a diverse pool of qualified applicants, including military service members, to apply for employment. **MTA NYC Transit is an equal opportunity employer.**



Post immediately in station platform map frames. Remove posting: ??? ? 2019.
Post immediately on bus window behind operator. Remove posting: ??? ? 2019.
19_341_11x17

CAREERS IN TRANSPORTATION EXPO

Learn how a career in transportation can move you. ----->

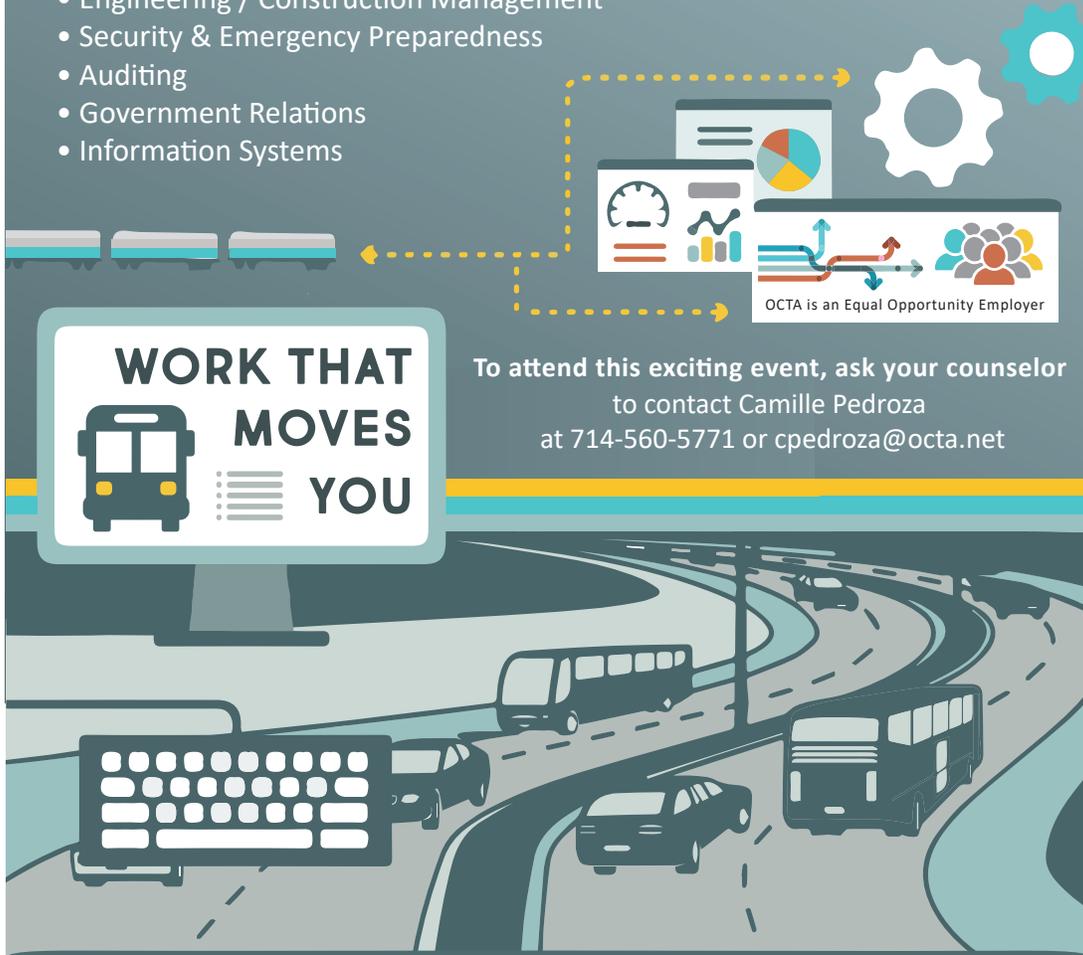
TUESDAY, MARCH 10, 2020
For High School Juniors and Seniors
9:00 AM - 12:00 PM

Where do you want to go?

- Human Resources & Organizational Development
- Transportation Planning
- Finance & Administration
- Bus Drivers & Mechanics
- Marketing, Public Relations and Public Outreach
- Engineering / Construction Management
- Security & Emergency Preparedness
- Auditing
- Government Relations
- Information Systems

How can we help you get there?

- Resumé Critiquing
- Mock Job Interviews



WORK THAT MOVES YOU

To attend this exciting event, ask your counselor to contact Camille Pedroza at 714-560-5771 or cpedroza@octa.net



TODAY'S SPEAKERS

• **JARED HILL** PUBLIC OUTREACH
Community Relations Specialist Associate

Jared graduated from CSUF in May 2018 majoring in Public Administration with a minor in Political Science. During his senior year, Jared began interning for OCTA as part of the Government Relations team. Now serving as a Community Relations Specialist in External Affairs, Jared staffs OCTA's public committees and assists in planning studies for future regional transportation projects.

• **JEANNIE LEE** CAPITAL PROGRAMS
Project Manager Senior

Jeannie Lee is a Senior Project Manager in the Capital Highway Program group at OCTA, where she manages multiple projects with project costs totaling over \$1.3 billion. She is currently serving as Women in Transportation (WTS) Orange County Chapter Immediate Past President. For more than a decade, Jeannie has been deeply committed to WTS' Orange County Chapter as a member, committee member, and various elected board positions and has been recognized with the Member of the Year award in 2013 and by WTS International in 2014.

• **DENISE ARRIAGA** PLANNING
Transportation Funding Analyst

Denise Arriaga is a Transportation Funding Analyst and has over four years of experience in planning and programming at OCTA. She has led the development and management of the 2019 Bicycle Corridor Improvement Program which most recently provided over \$25 million dollars for bicycle and pedestrian improvements throughout Orange County. This year she completed the Public Employee Leadership Development Program through CSUF and holds her Bachelor of Science degree in Urban and Regional Planning from California Polytechnic University, Pomona.

• **BRIAN KOENIG** GARDEN GROVE MAINTENANCE
Base Manager

Brian joined OCTA in 2007 as a Maintenance Supervisor after at twenty-two year career with the United States Marine Corps as an Amphibious Assault Vehicle Diesel Mechanic. In March 2016, Brian was promoted to the Assistant Base Manager of Garden Grove base and in the Summer of 2018, he was promoted to the Base Manager of Maintenance for Garden Grove base.



2020 CAREERS IN TRANSPORTATION EXPO

Tuesday, March 10th, 2020
9:00 a.m. - 12:00 p.m.





AGENDA

Orange County Transportation Authority
Careers in Transportation Expo

9:00 AM

WELCOME - MOTOR COURT

Jennifer Bergener, Deputy CEO/Chief Operating Officer

9:05 AM

GUEST SPEAKERS

- Jared Hill, Community Relations Specialist Associate, Public Outreach
 - Jeannie Lee, Project Manager Senior, Capitol Programs
- Denise Arriaga, Transportation Funding Analyst, Planning
- Brian Koenig, Base Manager, Santa Ana Maintenance

9:20 AM

INSTRUCTIONS

Karen DeCrescenzo, OCTA Human Resources Manager

9:30 AM - 11:45 PM

EXPO BOOTHS OPEN - 550 BUILDING

- Mock Interviews, 600 Building, Employee Lounge
 - Resumé Critique, 600 Building, Conference Room 101 - 103, Employee Lounge

1st: 11:00 - 11:30 AM • 2nd: 11:30 AM - 12:00 PM

LUNCH SERVED - MOTOR COURT

11:45 AM

RAFFLE PRIZES - MOTOR COURT

Sponsored by:

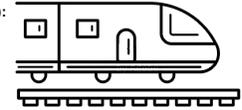


Winston



HOW TO EARN RAFFLE TICKETS:

- Scavenger Hunt:** Answer at least 1 question from 10 or more vendors
 - Turn in the Scavenger Hunt pamphlet to the Raffle table outside for a raffle ticket!
- Bonus (attend at your pre-scheduled time):**
 - +1 raffle ticket for Mock Interview
 - +1 raffle ticket for Resumé Critique



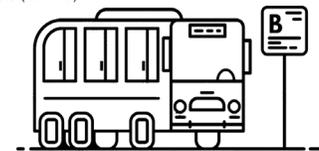
EXPO BOOTHS:

OCTA'S DEPARTMENTS & PROGRAMS:

- Accounting & Financial Reporting Department
- Bus Operations Department (Bus Drivers)
- Capital Programs/Rail
- Contracts Administration & Materials Management Department
- External Affairs
- Government Relations
- Health, Safety & Environmental Compliance Department
- Highway Programs
- Human Resources Department (Employee Benefits & Services)
- Information Systems Department (Information Technology)
- Intern/Scholarship Program
- Learning & Development Department
- Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor Agency
- Maintenance Department (Mechanics)
- General Services (In-house customer service)
- OC StreetCar
- Planning (Develops Transportation Solutions)
- Project Controls (Project Monitoring & Budgeting)
- Real Property
- Reprographics (Printing Services)
- Risk Management Department
- Security & Emergency Preparedness Department

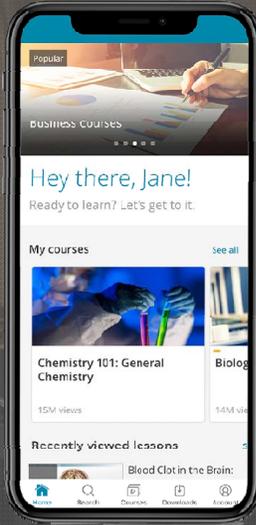
EXTERNAL ORGANIZATIONS:

- Conference of Minority Transportation Officials (COMTO)
- LA Metro
- Metrolink
- Saddleback College
- Santa Ana College
- Orange County's Credit Union
- Women in Transportation (WTS)





FOR TRANSIT AGENCIES

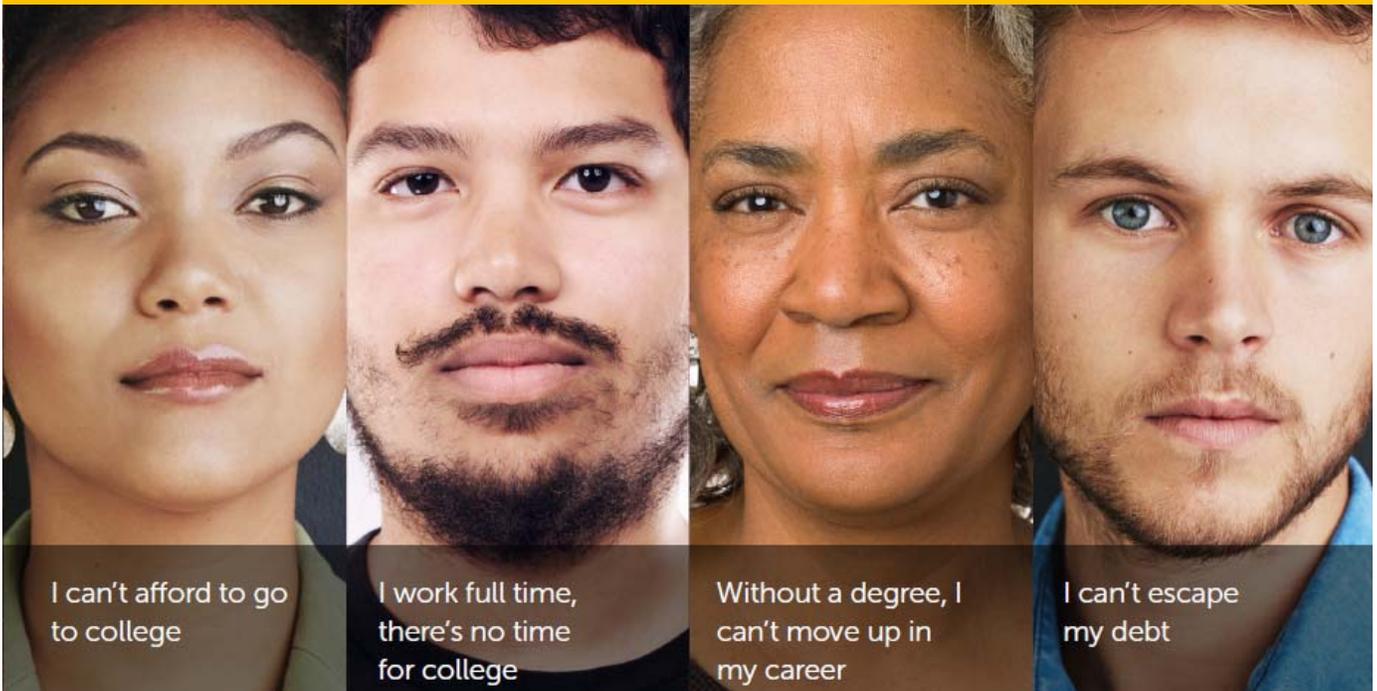


An education benefit designed specifically for the non-traditional student to get their degree.

Make Education Accessible by Breaking Down Barriers

- ✓ The most flexible and fastest solution available
- ✓ One-to-one student support
- ✓ Completed with little-to-no student debt

Why Working Scholars?



Sound Transit (Seattle)



The learning experience was created especially for frontline employees

Participants can control their learning schedule for school, while still working full-time

- On-Demand, self-paced courses actually make sense for full-time schedules
- Delivered in short 5-8 minute video Micro-Lessons
- Mobile app on phone lets you study anytime and anywhere
- Coaching and cohort structure for motivation and support
- Competency-based, college courses



How The Program Works

Working Scholars' credits are transferred to a Regionally Accredited Non-Profit University from where the degree is granted.

“It's like Community College from your phone...”

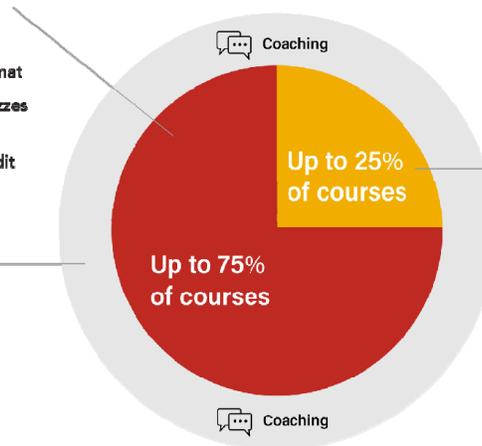
2019 Working Scholars Graduate



- ✓ Flexible microlearning format
- ✓ Projects, assignments, quizzes and proctored final exams
- ✓ Lower cost alternative credit
- ✓ Success coaching

Coaching

- ✓ Degree planning
- ✓ Support
- ✓ Motivation
- ✓ Enrollment
- ✓ Transfer assistance



ACCREDITED 4-YEAR UNIVERSITY

- ✓ Upper division courses
- ✓ Degree granting institution
- ✓ Alumni network

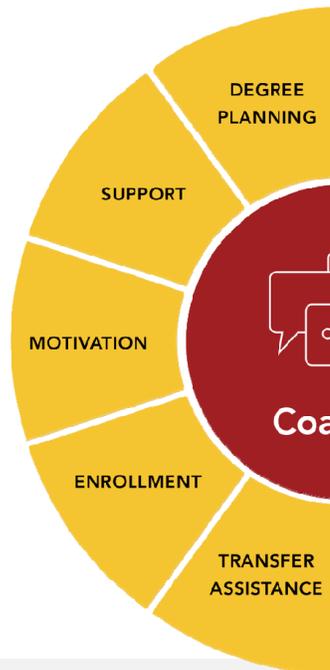
Sound Transit (Seattle)

Success Coaches and a Cohort structure make a huge difference

85% PROGRAM RETENTION RATE

Enjoy the benefits of a guided experience

- Work with students from start to finish of program
- Transfer assistance & academic support
- Serve as Counselor-Cheerleader-Advocate-Resource-Etc.
- Being part of a Cohort with local support system
- Continuous support from Working Scholars Program



The most affordable path to a bachelor's degree

70% less than the average cost of earning a degree at a traditional university –
As close to free as a degree can be



\$2,000/ per person per year

Unlimited Courses

Coaching Included

90 Credits



Costs of Graduating University

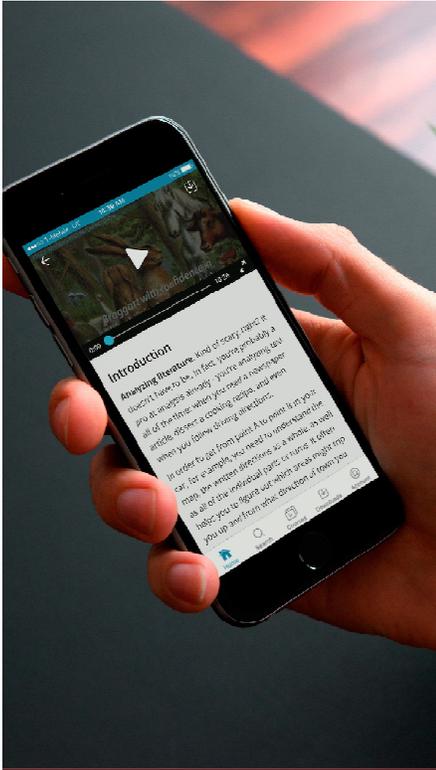
\$5,000-\$14,000

Depending on selected graduating school

Costs can be a combination of employee and employer

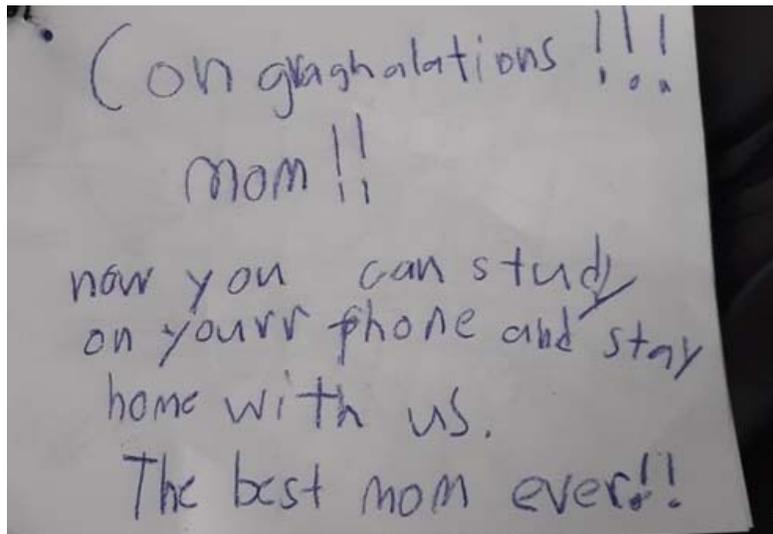
30 Credits

Total Bachelor's Degree Cost: \$7,000 - \$20,000

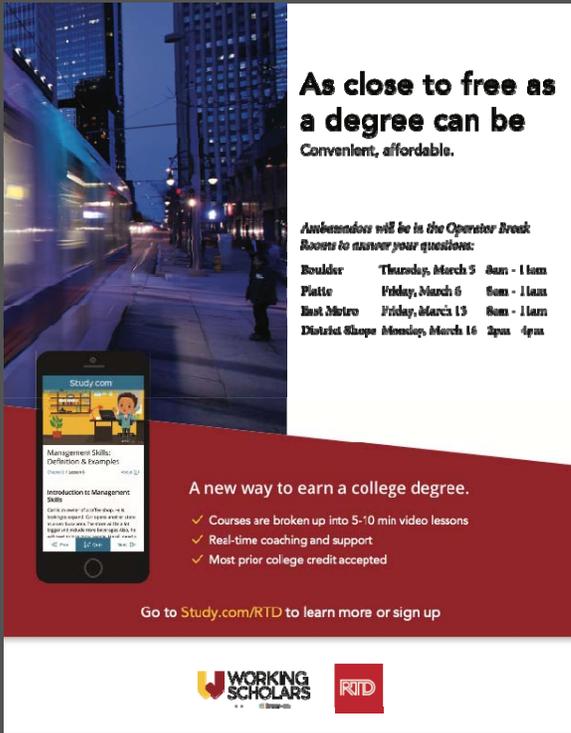


What does Working Scholars mean to the Organization?

- Get more results for same or less funds already committing to education
- Powerful low-cost tool for:
 - [Recruitment](#) – Increase funnel of interested applicants
 - [Retention](#) – Greatly reduce turnover
 - [Upskilling](#) – Provide skills and degree to support career progression
 - [Career Pipeline building](#) – Support Frontline employees
- Support for Diversity, Inclusion, and Equity goals
- Develop further loyalty
- Aligned with Social Responsibility and values
- Positive impact to highlight in community
- Cohorts of motivated employees



Sound Transit (Seattle)



As close to free as a degree can be
Convenient, affordable.

Attendees will be in the Operator Break Rooms to answer your questions:

Boulder	Thursday, March 5	8am - 11am
Platte	Friday, March 6	8am - 11am
East Metro	Friday, March 13	8am - 11am
District Shops	Monday, March 16	2pm - 4pm

A new way to earn a college degree.

- ✓ Courses are broken up into 5-10 min video lessons
- ✓ Real-time coaching and support
- ✓ Most prior college credit accepted

Go to Study.com/RTD to learn more or sign up

WORKING SCHOLARS **RTD**

APPENDIX



Sound Transit (Seattle)

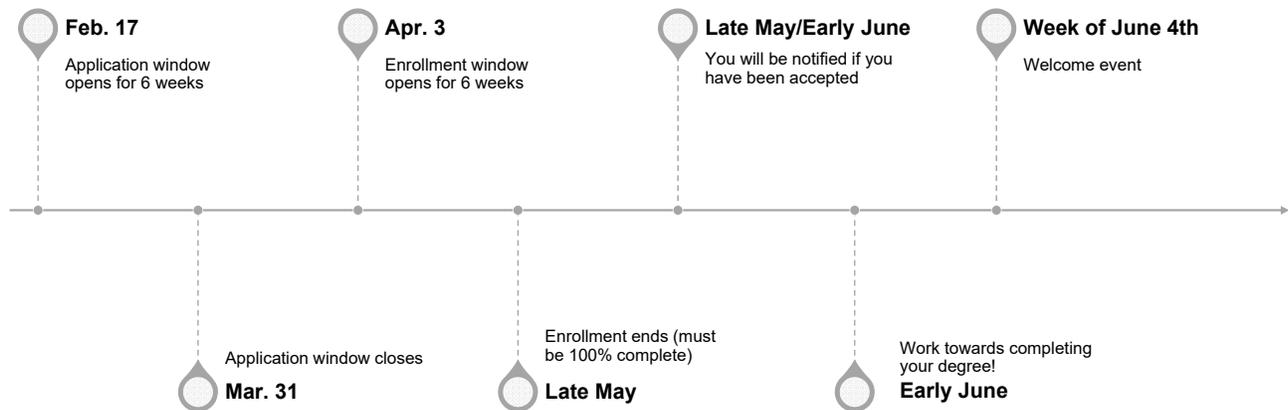


Structure of Program Considerations

- Determine goals for the program
- Examine Education benefits
- Determine minimum number of students per cohort
 - Based on:
 - Size of organization
 - Best practices for employee and employer impact
 - Available budget
- Determine what costs will cover
- Determine eligibility
 - Employee status
 - Dependents
 - Qualification course
 - Partnership with other agencies
- Future Cohorts/ Continuing graduates
- Plans for marketing – From both sides



Sample Enrollment Timeline



What the Scholars Say

“ I got a job that I wanted, in Assistive Technology. Yay!! The computer classes I was taking through Study.com were so helpful. Learning and knowing built my confidence, of course. All of this determined the outcome of the job interview. Being a Working Scholar is paying off sooner than I expected. Feeling grateful...

Radmilla P.
Mountain View, CA

“ I can't wait to finish my Bachelor's Degree in Liberal Arts. I cried after my first Perris Working Scholars event in September. This is an amazing opportunity!

Katie M.
Perris, CA



ROI of Employees using Education Benefits

- 129-230% ROI for every dollar spent on education benefits
 - Savings comes from reduced recruiting costs, with more employee promotions, retentions and internal transfers.
- Cost of replacing an employee is about 16-20% of their salary
- Education benefits are a scalable way to increase access to diverse candidates in both urban and rural areas

A college degree is one of the most powerful ways to unlock economic opportunity

College grads earn

\$1 MILLION MORE

over the course of a career than those without a degree

+50%

It also has a multigenerational impact increasing the likelihood your children will earn a degree by 50%



Getting more Employees to Utilize Education Benefits

- Tuition Assistance over Tuition Reimbursement
 - Many workers do not have funds up front
 - 70% of Americans have less than \$1,000 in savings ³
 - Concerns if they actually will be reimbursed
 - Still find ways to ensure only paying for successful employees
- Highlight most cost-effective and time-friendly options
- Encourage employees to be part of a cohort – social motivation
- Clear career progressions

GOBanking Rates 2019 savings survey

A college degree is one of the most powerful ways to unlock economic opportunity

College grads earn

\$1 MILLION MORE

over the course of a career than those without a degree

+50%

It also has a multigenerational impact increasing the likelihood your children will earn a degree by 50%



Graduating Universities

Regionally Accredited Non-Profit

Progressive Transfer Policy

- Accept credit from regionally accredited Colleges & Universities
- Transfer up to 90 Credits from Study.com
- Capstone – Final courses are completely online

Prices vary according to school selection



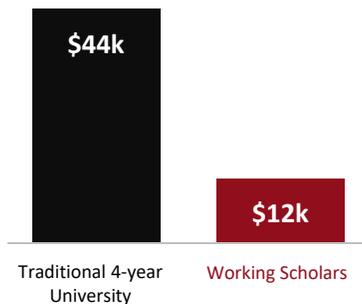
225 approved credit-recommended courses

- Each course is reviewed and approved by a panel of subject matter expert professors.
- Assessments at completion of lessons, chapters and courses demonstrate retention and mastery of subject matter.
- Assignments and projects are added to video courses for additional rigor.
- All courses utilize a comprehensive, proctored final exam.
- In addition, Graduating Universities' faculty review and approve courses for all degrees.



Get more out of your Employee Education Benefits

Average Tuition for a 4-year Bachelor's Degree



*Total Working Scholars degree costs range from \$8K - \$20K, with \$12K being the average
**Based on average tuition cost in Illinois

Average Employee Benefit/Year



\$5,250

Average Working Scholars Cost/Year



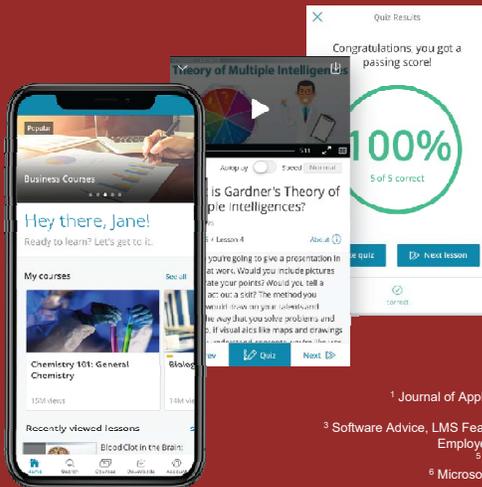
\$3,000

Courses taken through Study.com - \$2,000/year, less than half of annual benefit



Sound Transit (Seattle)

A platform designed with retention and access front of mind



¹ Journal of Applied Technology
² Boyette, 2012
³ Software Advice, LMS Features that Drive Employee Engagement
⁵ Microsoft, 2019
⁶ Microsoft and \$-H 2019

Why Micro-learning?

- Learning in bite sized pieces makes the transfer of learning 17% more efficient. ¹
- 8 out of 10 Learning & Development professionals favor microlearning because their learners prefer it. ²
- More than 50% of end users surveyed preferred microlearning ³

Why Mobile?

- In 2019, only ~140M people in the US had broadband access while 237M have smartphone access. ⁵
- Additionally, 20% of rural population lack access to broadband regardless of it being available where they live. ⁶



A more affordable path to a bachelor's degree



No cost to students

Up to 5 courses/month

Coaching included

90 credits



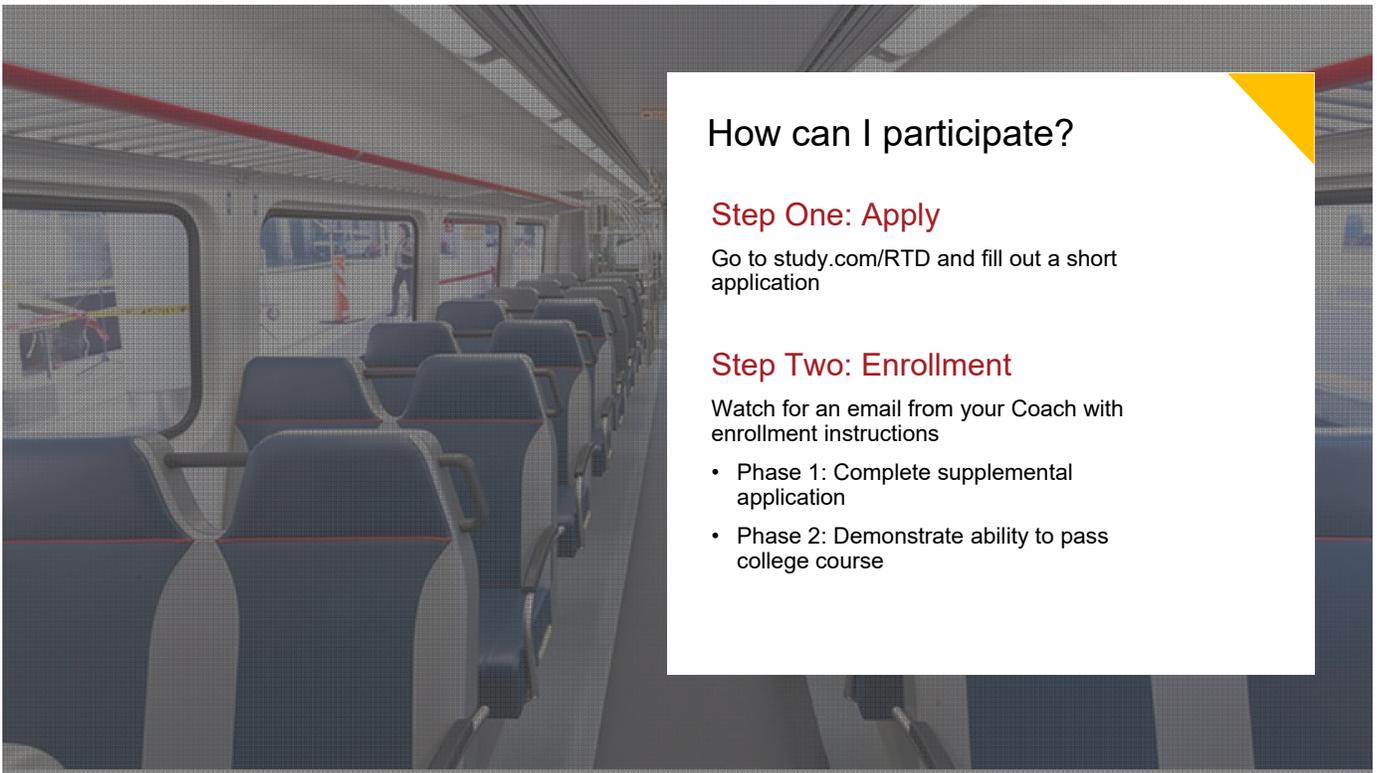


Cost of graduating university

Study.com negotiated special flat rates with partner universities from \$5K-14k

Tuition assistance available to help offset cost

30 credits



How can I participate?

Step One: Apply

Go to study.com/RTD and fill out a short application

Step Two: Enrollment

Watch for an email from your Coach with enrollment instructions

- Phase 1: Complete supplemental application
- Phase 2: Demonstrate ability to pass college course



Get so much more for employee & organization

Communicate regularly with your Success Coach

Work with your Success Coach to set your annual course goal

Courses per Year	Years to Graduation*
12	3.5
10	4
8	5
6	6.5

- 12+ Courses = exceptional
- 8 – 12 Courses = goal
- 6 – 8 Courses = acceptable

**Assumes no prior credit*





Job Shadow Request Form

Date: Click or tap to enter a date.	
Requestor's Name: Click or tap here to enter name.	
Email: Click or tap here to enter email.	Phone: Click or tap here to phone number.
Position you wish to observe: Click or tap here to enter position.	
What do you expect to gain from the job shadowing experience? Click or tap here to enter text.	
Requestor's:	
Available dates:	
Available times:	
Requestor's signature:	
Date: Click or tap to enter a date.	

Requestor's supervisor's signature:	
Date: Click or tap to enter a date.	
Host's signature:	
Date: Click or tap to enter a date.	
Host Department authorization signature:	
Date: Click or tap to enter a date.	

Please submit your completed request form to Larry Delgado at ldelgado@piercetransit.org and Samantha Einarson at seinaron@piercetransit.org.

Revised 10/23/18



Pierce Transit's Strategic Priority: To cultivate and maintain an engaged workforce.

The goal of job shadowing is to allow Pierce Transit employees the opportunity gain knowledge about any position at Pierce Transit through observing a fellow coworker perform his/her work duties.

What is Job Shadowing?

Job shadowing is voluntary. It is an opportunity for an individual from one area of the organization to observe and gain knowledge of the role of an individual in another area.

Why Job Shadowing?

To gain a new perspective on a position by providing a “day in the life” snapshot of other departments and workgroups.

Job shadowing has many potential benefits for staff and departments within Pierce Transit:

- Improves communication across departments and encourages continuous improvement
- Facilitates the breaking down of internal barriers across PT and serves as an excellent networking tool
- Allows an opportunity for hosts to share best practices and provides for self-development of the visitor/guest
- Allows individuals to view processes they are involved in from a different angle

By engaging in job shadowing individuals will be able to:

- Understand how other staff and teams work
- Gain insight into the roles and responsibilities of other members of staff and other departments
- Reflect and learn from others
- Experience the bigger picture and understand more about Pierce Transit

For the individual being shadowed (Host) there is the opportunity to:

- Share your experiences with colleagues from a different work area to your own
- Reflect on your work through discussion with the person shadowing you which may allow you the opportunity to see your role through “fresh eyes”
- Establish cross-functional relationships and connections with other team members

Requestor:

- Be prepared with questions for your Host.
- You will be required to briefly report out on your job shadowing experience.

*Job Shadows are typically 2 to 4 hours

Note: Some positions engage in confidential matters. Not all meetings will allow for shadowing opportunities.

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Courtesy of MBTA



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APTAU
Delivering the Future-Ready Workforce

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and Educational
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