



# Innovative Transit Workforce Development Projects of 2015

## *Summative Evaluation*

FEBRUARY 2020

FTA Report No. 0153  
Federal Transit Administration

PREPARED BY  
Dr. Daniel Weissbein  
Axiom Corporation



U.S. Department of Transportation  
Federal Transit Administration

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SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
<b>LENGTH</b>				
<b>in</b>	inches	25.4	millimeters	<b>mm</b>
<b>ft</b>	feet	0.305	meters	<b>m</b>
<b>yd</b>	yards	0.914	meters	<b>m</b>
<b>mi</b>	miles	1.61	kilometers	<b>km</b>
<b>VOLUME</b>				
<b>fl oz</b>	fluid ounces	29.57	milliliters	<b> mL</b>
<b>gal</b>	gallons	3.785	liters	<b>L</b>
<b>ft<sup>3</sup></b>	cubic feet	0.028	cubic meters	<b>m<sup>3</sup></b>
<b>yd<sup>3</sup></b>	cubic yards	0.765	cubic meters	<b>m<sup>3</sup></b>
NOTE: volumes greater than 1000 L shall be shown in m <sup>3</sup>				
<b>MASS</b>				
<b>oz</b>	ounces	28.35	grams	<b>g</b>
<b>lb</b>	pounds	0.454	kilograms	<b>kg</b>
<b>T</b>	short tons (2000 lb)	0.907	megagrams (or "metric ton")	<b>Mg (or "t")</b>
<b>TEMPERATURE (exact degrees)</b>				
<b>°F</b>	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	<b>°C</b>

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## Abstract

The US Department of Transportation (USDOT) and the Federal Transit Administration (FTA) believe that human capital is as important as physical capital. FTA held a competition and selected 17 projects to help address several identified transit workforce challenges. Although 17 were originally selected, one project was later removed from the program, leaving 16 projects awarded in FY 2015. In FY 2016, FTA selected an independent evaluator, Axiom Corporation, to conduct a summative evaluation of these projects to gauge each project's effectiveness against their individually-proposed goals. An additional goal of the evaluation was to assess whether further Federal investment was warranted. Axiom conducted the evaluation by reviewing documents and hosting structured interviews with each project participant. Through this evaluation, Axiom determined that, overall, the program successfully identified promising approaches for workforce development. Of the 16 projects, 13 were recommended for further investment, 2 were somewhat recommended for investment, and 1 was not recommended. In total, 90% of all project goals were met, 57% of goals were exceeded, 10% were unmet, and the remainder were indeterminate or too early to draw a conclusion. Collectively, the projects provided training to more than 5,000 participants for transit careers, with 2,217 certifications earned; 1,552 participants were placed into employment or apprenticeships; and 30 training courses and 2 apprenticeship programs were created. Cross-project conclusions and implications are offered in the evaluation report.

# Introduction

This report provides the results of an evaluation of Innovative Transit Workforce Development Program (ITWDP) projects awarded in Fiscal Year (FY) 2015. The US Department of Transportation (USDOT) and the Federal Transit Administration (FTA) believe that developing and maintaining human capital is as important as the investment in physical capital. With the resurgence of public transportation in recent years, transit systems face a number of challenges—rapidly changing technologies (to vehicles, rights-of-way, and customer information services), an aging workforce, and increasing ridership. These challenges make attracting and preparing new talent increasingly important.

To help address these challenges, FTA published a Notice of Funding Availability for proposals for the program in December 2014. This was the third competition for workforce funding. The first was in FY 2011, and the second took place in FY 2012. Upon receipt of proposed applications, FTA selected 17 applicants.

Based on a competitive application process, FTA awarded \$8,308,882 for 17 workforce development projects in FY 2015. One project subsequently decided not to participate, resulting in 16 projects. Recipients included transit authorities, higher education institutions, Native American tribes, and non-profit organizations individually or as a consortium. These entities were expected to partner with one another and the public workforce investment system, labor organizations, or other appropriate entities to enact workforce solutions. Proposed projects could create a new nationally- or regionally-significant workforce development project or could augment or replicate a successful existing program that will have benefits for transit agencies or the transit industry. FTA prioritized proposals focused on one or more of the following areas:

- Targeting areas with high rates of unemployment
- Helping persons in local communities directly benefit from employment opportunities created by the construction and operation of new transit capital projects in their region
- Providing career pathways that support the movement of targeted populations (e.g., new transit entrants and other underserved populations such as women and veterans) from short-term employment to sustainable careers
- Helping to increase, through outreach and training, the employment of minorities, women, individuals with disabilities, veterans, low-income populations, and other underserved populations in public transportation activities

- Addressing gaps in areas with current or projected workforce shortages in fields related to public transportation
- Pre-employment training/preparation/tracking, and/or recruitment and hiring

The 2015 ITWDP used both SAFETEA-LU and MAP-21 funds and required a minimum 50% non-Federal cost share for all funds awarded. Applicants were informed that higher percentages of cost share would be looked upon more favorably.

The 2015 funding was executed in the first half of 2015, although proposed budgets were cut by roughly 20% before execution. Projects were scheduled to run for 24 months from the date of execution. However, it should be noted that many projects were extended, with some concluding in 2018 and some still ongoing at the time of this report.

Projects were expected to produce at least one final deliverable that would become available to FTA at the end of the project for dissemination and sharing throughout the industry at no cost, in addition to regular performance reporting. Applicants were asked to specify in their proposals a plan for recording the outcomes of the project, including:

- Number of individuals affected by the project
- Cost of the project and share of Federal investment
- At least one measure of quality
- Project descriptions and statements of applicability to other entities

## Program Evaluations

In 2013, FTA contracted with Axiom Corporation to conduct a summative evaluation of the 2011 funded ITWDP projects, with the goal of determining whether these projects met their goals and whether they were scalable and worthy of further FTA funding and expansion. This evaluation involved document review, protocol development, and structured interviews with project operators. It culminated in a 2015 evaluation report summarizing each project, assessing projects against their stated goals, and providing an assessment regarding whether they merited further investment by FTA. The report concluded with observations about common elements of successful projects and recommendations.

In 2016, Axiom conducted a follow-on summative evaluation covering the 2012 ITWDP projects. This evaluation also was to gauge the effectiveness of each project and help justify the Federal investment and was to follow the same methodology. Axiom was tasked with reviewing the workforce development projects to determine their goals, measures of achievement, and potential impact on local or national transit workforce development needs. This evaluation culminated in a 2017 evaluation report similar to the 2011 report.

Following completion of the 2012 report, Axiom conducted a similar evaluation for the 2015 projects, with the understanding that not all would be complete. Axiom conducted this summative evaluation of the 2015 projects using the same methodology as prior efforts—document review and interviews with those responsible for implementing the project. The 2015 ITWDP projects were essentially similar to the prior efforts with a few distinctions. First, they covered a wider range of project topics, with less specific focus on youth or blue-collar workers but more emphasis on career ladders. Second, the 2015 effort had a different funding source and more stringent cost-sharing requirement (in prior efforts, sharing was preferred but not required). The remainder of this report focuses on the 2015 projects.

## Methodology

As was the case for the prior evaluation, this ITWDP evaluation was conducted via two primary methods—document review and telephone interviews with recipients. In addition to applicant proposals, which outlined goals, expected outcomes, and metrics, the recipients provided periodic updates on their progress to FTA as well as a final project report. Some recipients planned to conduct surveys of participants or use outside evaluation firms. Axiom reviewed all available documentation provided by FTA related to recipient programs as a primary source.

Next, the Principal Investigator (PI) conducted telephone interviews with one or more representatives from each project. These semi-structured interviews followed protocols covering a common set of topics for consistency, but questions for each topic reflected the specific and varied nature of the recipient projects. For example, each protocol covered project implementation, although the questions differed at times to reflect whether the project was a technical training program, a youth outreach project, or one providing career pathways. The PI took notes and analyzed and summarized for this report.

One recipient, Denver RTD's Workforce Initiative Now (WIN), decided after a leadership change to not participate in the program despite successfully applying. It was making arrangements to return funding as data were being collected for this report and, therefore, is not included in this report. Another project, Intercity Transit's Village Vans program, was not awarded until September 2017; it participated in the evaluation but the project was far from completion.

## Results

### Project Types

As shown in Table ES-1, of the 16 funded projects covered in this report, 12 focused primarily on new entrants to transit. Five were designed primarily to provide training to existing technicians or frontline staff to improve the skills of those already in the transit sector; two had leadership or supervisory

development components, but this training was coupled with incumbent or new entrant training; and one project, LA Trade Technical College's Transportation Pathways, covered both new entrant and incumbent training with equal focus.

Table ES-1 describes the primary focus of the projects, but projects also had different approaches. The first type was transit agencies that trained participants with the intention of hiring all or some of them directly into their agency as employees. The second type prepared people for apprenticeships; these typically were pre-apprenticeship projects and most often in the construction industry for agencies with ongoing capital projects, such as building new rail lines, bridges, etc. The third type included projects that trained incumbents to provide an opportunity to improve skills and progress within the job or career. Finally, two projects dealt with leadership or supervisory development. A number of projects are included in multiple categories, such as the ITLC projects that developed training for new entrants or incumbents (100-, 200-, and 300-level courses) and developed apprenticeship programs. These are summarized in Table ES-2.

**Table ES-1** Types of ITWDP Projects Funded in 2015

General Project Focus	Projects in Focus Category	Project Sponsors and Titles
New Hires/ Entrants	13	<ul style="list-style-type: none"> <li>• Bay Area Rapid Transit – Transit Career Ladders Training</li> <li>• Chicago Transit Authority – Second Chance and Priority Careers Program</li> <li>• Community Career Development – Moving Employees into Transit-Related Opportunities</li> <li>• Grand Gateway EDA – N2N Automotive University</li> <li>• Greater Cleveland RTA – Career Pathways Program</li> <li>• Intercity Transit – Village Vans Program</li> <li>• Jersey City ETP – Workforce Development Training Program</li> <li>• LA Trade Technical College – Transportation Pathways</li> <li>• MassDOT – Construction Career Development</li> <li>• Metro Transit – Mass Transit Technician Program</li> <li>• Niagara Frontier Transportation Authority – Skilled Laborer Jobs Training Program</li> <li>• Santa Clara Valley Transportation Authority – Discover Opportunities in Transit!</li> <li>• Workforce Snohomish – Puget Sound Region Ladders to Opportunity Initiative</li> </ul>
Incumbent Workers	5	<ul style="list-style-type: none"> <li>• Bay Area Rapid Transit – Transit Career Ladders Training ITLC – Railcar Maintenance and Beyond</li> <li>• ITLC – Signals Career Pathways</li> <li>• Jacksonville Transportation Authority – Back 2 Work</li> <li>• LA Trade Tech College – Transportation Pathways</li> </ul>
Leadership/ Supervisors	2	<ul style="list-style-type: none"> <li>• Community Career Development – Moving Employees into Transit-Related Opportunities</li> <li>• Greater Cleveland RTA – Career Pathways Program</li> </ul>

**Table ES-2** 2015 ITWDP Project Activities

Category of Activity	Projects in Category	Project Sponsors and Titles
New Entry Direct Hire	10	<ul style="list-style-type: none"> <li>• Bay Area Rapid Transit – Transit Career Ladders Training</li> <li>• Chicago Transit Authority – Second Chance and Priority Careers</li> <li>• Community Career Development - Moving Employees into Transit-Related Opportunities</li> <li>• LA Trade Tech College – Transportation Pathways</li> <li>• Grand Gateway EDA – N2N Automotive University</li> <li>• Greater Cleveland RTA – Career Pathways Program</li> <li>• Intercity Transit – Village Vans Program</li> <li>• Metro Transit – Mass Transit Technician Program</li> <li>• Niagara Frontier Transportation Authority – Skilled Laborer Jobs Training Program</li> <li>• Santa Clara Valley Transportation Authority – Discover Opportunities in Transit!</li> </ul>
New Entry, Pre-Apprenticeship/Apprenticeship	7	<ul style="list-style-type: none"> <li>• ITLC – Railcar Maintenance and Beyond</li> <li>• ITLC – Signals Career Pathways</li> <li>• Jersey City ETP – Workforce Development Training Program</li> <li>• MassDOT – Construction Career Development</li> <li>• Workforce Snohomish – Puget Sound Region Ladders to Opportunity Initiative</li> </ul>
Incumbent Technical	4	<ul style="list-style-type: none"> <li>• Bay Area Rapid Transit – Transit Career Ladders Training</li> <li>• Jacksonville Transportation Authority – Back 2 Work</li> <li>• ITLC – Railcar Maintenance and Beyond</li> <li>• ITLC – Signals Career Pathways</li> </ul>
Leadership/Supervisors	2	<ul style="list-style-type: none"> <li>• LA Trade Tech College – Transportation Pathways</li> <li>• Greater Cleveland RTA – Career Pathways Program</li> </ul>

## Overall Project Outcomes

The 2015 ITWDP projects, as a whole, produced a number of outcomes, including participants who were trained, placed in employment, earned certifications, or introduced to transit careers. Table ES-3 provides a summary of the outcomes across the 16 projects covered. These are conservative, lower-bound estimates, as some projects did not have tracking in place for all outcomes, and some projects were ongoing at the time of this report and continue to produce outcomes.

**Table ES-3**  
2015 ITWDP  
Program Outcomes

Outcome	Number
Outreach*	11,548
Participants trained	4,996
Certifications earned	2,217
Participants placed – employment/apprenticeship	1,015
Training courses created	30
Promotions	18
Apprenticeships created	2

\*Lower-bound; only 8 of 16 projects reported outreach figures.

In addition, a number of products developed under the 2015 ITWDP projects have been provided to FTA and can be made available to all transit agencies. These are summarized in Table ES-4.

**Table ES-4**

*2015 ITWDP  
Products Developed*

- 5 new training curricula for technical programs
- 2 skills crosswalks between military and transit jobs
- 1 institute created
- 1 competency model (Vehicle Maintenance)
- 1 toolkit for improving gender equity
- 1 program handbook for others to replicate
- 1 model application across programs
- 1 youth academy curriculum
- 1 city corridor plan

## Federal Investment and Matching

FTA invested \$8.3 million in Federal funds in the 17 ITWDP projects covered in this report. Funding for these projects had considerable variability, ranging from a high of \$750,000 to a low of \$200,000; average funding across all 17 grantees was \$477,000.

Unlike prior iterations of this program, the 2015 ITWDP required at least 50% matching funds or in-kind contributions. Estimates of participant matches ranged from a high of \$6,269,085 to a low of \$200,000, with an average of \$894,000. In-kind contributions included staff salaries and benefits, existing training programs, building space, and materials. The Table ES-5 summarizes the program totals.

**Table ES-5**

*ITWDP Federal Investment  
and Matching Funds*

Investment Type	Amount	% Total
Federal investment in 2015 projects*	\$8,308,882	37%
Total matching and in-kind contributions (estimated)	\$14,309,455	63%
Total	\$22,618,337	100%

\*Represents the 16 projects covered in this report.

The participating agencies indicated that their total matching and in-kind contributions more than met the 50% match requirement. The amounts above do not take into account that Denver RTD, MassDOT, and Jersey City ETP have not used (and are returning) a total of \$797,288. They also do not include \$1,767,156 offered by one project in the proposal for capital improvement but that decided not to execute that component in the project; it was not included in the matching total above.

## Conclusions and Implications

Based on this evaluation, a number of conclusions and implications can be drawn about the ITWDP projects of 2015.

### Conclusions

- **Grantees generally met, and often exceeded, their goals.** Grantees specified goals in their proposals that they intended to achieve during the project. Although many recipients required additional time, 90% of all goals were met across projects. Moreover, 57% of all goals were not just met but were exceeded, and often considerably exceeded. Of the remainder, 10% were not met, 4 goals had no data and thus were not counted, and 2 goals remain to be determined, as the project is not completed. Overall, the outcomes suggest that the projects funded were mostly well-planned and well-executed.
- **The program was successful at identifying promising approaches for workforce development.** The 2015 ITWDP projects are best viewed as pilot tests. FTA selected projects that varied in scope and type to explore different avenues for addressing common transit workforce issues. Based on evaluation results, the projects appear to have identified several promising approaches that are worthy of consideration for further investment or investment on a broader scale.
- **Transit, workforce, and education agencies together make very strong partnerships.** As with prior iterations of the ITWDP, some of the strongest projects come when a transit agency works with a workforce agency and an education partner. The transit agency provides positions and expertise, the education partner provides instructional design and rigor, and the workforce partner provides job seekers and support services. Together, they produce very productive workforce development programs. There were more such partnerships in this round of ITWDP projects compared to FY 2011 and FY 2012 projects, and this may account for the high number of goals met and exceeded.
- **Established projects offer a safe route to outcomes.** Several projects funded in the 2015 round were building on, enhancing, or expanding existing programs. This route is a relatively safe way to ensure that goals are met—there is less time needed for development, outreach processes are already established, and the programs have a proven track record of success.
- **Pre-apprenticeship programs must be flexible to accommodate transit construction.** Several projects in the 2015 round were pre-apprenticeship projects and generally focused on construction apprenticeships. These programs are generally well-established and, because there are usually State standards for what they must cover, they are generally thorough. However, because there may be key differences

between “horizontal” construction for transit and “vertical” construction for buildings, it is important that these programs be willing to work with transit construction companies to adjust their curricula, examples, employer partners, etc., to accommodate transit construction. Some reportedly were reluctant at first, but with flexibility, outcomes were attained.

- **Unions need to be included early in recruitment and training projects.** Virtually all transit agencies have unions representing their frontline workforce. Project representatives generally report that having the unions involved from inception is helpful. Participants often will become union members; not only do they need to be trained so they can pass union-required tests, but their pay and opportunities must be worked out with the union. In some cases, project leaders assumed union cooperation would not be a problem but found that it took substantial negotiation to work out. This can delay a project or leave graduates stranded. Labor-management agreements regarding the projects up-front can avoid critical problems later.
- **Applicants need to better define outcomes and metrics.** As with prior rounds of projects, there were projects that failed to clearly specify their intended outcomes. In some cases, no numerical targets were set; in others, metrics were set that did not relate to outcomes or impact. Although most projects in this round did a better job of specifying outcomes, some avoided setting targets on key metrics such as placement or measuring important metrics such as advancement for an incumbent program. Others set more unrealistic goals such as 100% retention after training. Although there has been improvement since the FY 2011 and FY 2012 projects, there is still room to improve.
- **Support is critical when expanding the talent pool to disadvantaged or under-represented populations.** One focus of the 2015 ITWDP was to reach out to populations that are disadvantaged or are traditionally under-represented in transit. Indeed, all of the projects tried to target these populations, such as those in poverty, ex-offenders, minorities, women, and veterans. For some, such as those in poverty and ex-offenders, support or wrap-around services are critical to helping them participate. They often have barriers such as transportation, childcare, drug treatment access, housing, driver’s license issues, and so on that must be addressed for them to remain in training over time. Other groups, such as women and veterans, can use different kinds of support such as help identifying how military skills can crosswalk to transit skills or active attempts promote more gender equity in all aspects of the workplace.
- **Participant selection is critical to project outcomes.** An interesting situation arises in workforce projects—how to select participants. Some open the project up to anyone; others select carefully. If the goal is to prepare participants for work in transit and the training is in-depth, then selection is critical to achieving hiring outcomes. Projects would be wise

to create multiple screening tests, with the most cost-effective screening measures up front, progressing to the most expensive before training begins. One 2015 project purposefully started with a wide outreach effort and expected (indeed, designed) a funneling process such that from hundreds of applicants, they intended to train few and hire only the best of those. The more demanding technical and hard-to-fill the positions are, the more this type of selection process is warranted. Some projects noted that they lost people after training to drug test failures. The training slot and investment were wasted in such cases.

## Implications

- **Develop and implement standard outcome measures.** FTA representatives indicated that the agency is creating a standard set of metrics for funded projects. This is encouraged, as it would provide guidance to projects on what outcomes to measure and, thus, what data to collect. Obviously, transit agencies are in the business of transportation, not workforce development, and cannot be expected to use the most rigorous data sources such as Unemployment Insurance Wage Records or resource-intensive methods. But a basic set of metrics that are simple to measure should be implemented.
- **Set project selection criteria in line with agency and program goals.** FTA should review the selection criteria for projects and consider whether they are aligned with agency goals. For example, the ITWDP projects were meant to be innovative pilot projects; however, some proposals strained to show what specifically was innovative about the approach. In contrast, others might be innovative but specify very low expected training numbers. If the goal is innovative projects, then criteria should be established for justifying what makes a project innovative, and the expectations must be that some may fail to reach their goals. By contrast, if high volumes of trained and placed participants are the desired result, then projects that are building on proven programs are the more logical investment and criteria should reflect this.
- **Require that projects specify outcome goals.** Some projects provided proposals that indicated what metrics would be tracked without specifying the target levels for these metrics. FTA should require that clear, measurable goals are set for project outcomes so their success can be evaluated against a standard set by FTA.
- **Consider whether projects are good for the participants or the transit agency, or both.** Ideally, a project will be a “win-win,” helping participants by providing skills and employment and the agency by providing talent and filling key skill gaps. However, some projects appear to be more beneficial to the participants than the agency. Unless there are other driving interests (e.g., increasing diversity, community relations, etc.), FTA may not want to fund training projects preparing people for positions in which there is

already a steady labor supply. Given the needs in transit, the focus should be on projects that address labor and skill shortages or expected shortages.

Table ES-6 provides a summary of the 2015 ITWDP projects.

**Table ES-6** Summary Table of 2015 ITWDP Projects

Grantee	Funding (% Federal)	Key Project Goals	Met Goals	Impact	Invest?
Los Angeles Trade-Technical College, CA	\$750,000 (50%)	<ul style="list-style-type: none"> <li>• Create institute</li> <li>• 175 complete orientation</li> <li>• 100 complete technical training</li> <li>• 120 incumbents up-skill</li> <li>• Competency model created</li> <li>• Curricula created</li> </ul>	<span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span>	High	
Community Career Development, Inc., CA	\$331,313 (45%)	<ul style="list-style-type: none"> <li>• 75 enroll in BOTA</li> <li>• 75 enroll in TOPSA</li> <li>• 95% complete BOTA</li> <li>• 95% complete TOPSA</li> <li>• 75 TOPSA graduates take supervisor ex-am</li> <li>• 50 BOTA participants placed</li> <li>• 135 certifications earned</li> </ul>	<span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span>	High	
Santa Clara Valley Transportation Authority (VTA), CA	\$200,000 (40%)	<ul style="list-style-type: none"> <li>• Develop I curriculum</li> <li>• 5 applicants for internship</li> <li>• 5 participants complete internship</li> </ul>	<span style="color: green;">✓</span> <span style="color: green;">✓</span> <span style="color: green;">✓</span>	Low	
Bay Area Rapid Transit District (BART), San Francisco, CA	\$750,000 (50%)	<ul style="list-style-type: none"> <li>• Create I model application</li> <li>• 200 contacted in outreach</li> <li>• 40 receive math/English training</li> <li>• 25 units of technical training</li> <li>• 65 enroll in technical training</li> <li>• 15 paid positions (part time)</li> </ul>	<span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: red;">✗</span>	High	
Jacksonville Transportation Authority, FL	\$200,000 (50%)	<ul style="list-style-type: none"> <li>• 300 impacted</li> <li>• 150 registered applicants</li> <li>• 120 placed/promoted</li> <li>• 80% placement rate</li> <li>• 90% retention rate</li> <li>• 75% businesses registered</li> <li>• 90% complete training</li> </ul>	<span style="color: green;">✓</span> <span style="color: red;">✗</span> <span style="color: red;">✗</span> <span style="color: red;">✗</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span>	Medium	
Chicago Transit Authority, IL	\$750,000 (11%)	<ul style="list-style-type: none"> <li>• 265 enroll</li> <li>• 212 retained in training</li> <li>• 170 complete training</li> <li>• 170 show literacy/numeracy gains</li> <li>• 1 handbook created</li> </ul>	<span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: red;">no data</span> <span style="color: green;">✓</span>	High	

Grantee	Funding (% Federal)	Key Project Goals	Met Goals	Impact	Invest?
MassDOT, MA	\$750,000 (46%)	<ul style="list-style-type: none"> <li>• 73 enroll</li> <li>• 2 training cycles enhanced</li> <li>• 73 complete training</li> </ul>	<span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span>	High	
International Transportation Learning Center (Railcar)	\$750,000 (50%)	<ul style="list-style-type: none"> <li>• Conduct 1 TC3 pilot test</li> <li>• 8 students trained in TC3 pilot</li> <li>• 10 rail car courses created</li> <li>• 8 rail car courses pilot tested</li> <li>• 40 workers trained in pilot tested, certifies</li> <li>• 2 apprenticeships created</li> <li>• 8 courses assessed for credit</li> </ul>	<span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span>	High	
International Transportation Learning Center (Signaling)	\$574,182 (50%)	<ul style="list-style-type: none"> <li>• 10 agencies receive Veterans Skill Guide</li> <li>• 10 agencies receive Gender Equity Toolkit</li> <li>• 1 military crosswalk</li> <li>• 13 courses completed</li> <li>• 13 courses pilot tested</li> <li>• 50 technicians trained</li> </ul>	<span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span>	High	
Metropolitan Council/Metro Transit, Twin Cities, MN	\$203,210 (50%)	<ul style="list-style-type: none"> <li>• 200 recruited</li> <li>• 40 take empowerment training</li> <li>• 40 graduate training</li> <li>• 20 customized technology training</li> <li>• 20 graduate customized training</li> </ul>	<span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓</span> <span style="color: yellow;">✓</span> <span style="color: yellow;">✓</span>	High	
Jersey City Employment Training Program	\$604,896 (39%)	<ul style="list-style-type: none"> <li>• 320 enrolled</li> <li>• 176 placed</li> <li>• 12% recidivism</li> </ul>	<span style="color: green;">✓</span> <span style="color: green;">✓</span> <span style="color: yellow;">✓</span>	High	
Niagara Frontier Transportation Authority	\$303,000 (50%)	<ul style="list-style-type: none"> <li>• 30 new participants</li> <li>• 10 incumbent participants</li> <li>• 40 total enroll</li> <li>• 30 placed</li> <li>• 1 bus retrofit</li> </ul>	<span style="color: green;">no data</span> <span style="color: green;">no data</span> <span style="color: green;">✓+</span> <span style="color: red;">✗</span> <span style="color: green;">✓</span>	High	
Greater Cleveland Regional Transit Authority, OH	\$407,780 (50%)	<ul style="list-style-type: none"> <li>• 60 enroll in BOTA training</li> <li>• 40 complete bus operator training</li> <li>• 32 electrical or mechanical training</li> <li>• 24 graduates take technical internships</li> <li>• 16 Management Development Interns recruited</li> <li>• 13 Management Development Interns hired</li> </ul>	<span style="color: green;">TBD</span> <span style="color: green;">TBD</span> <span style="color: green;">✓+</span> <span style="color: green;">✓</span> <span style="color: green;">✓+</span> <span style="color: red;">✗</span>	High	
Grand Gateway Economic Development Association, OK	\$399,933 (50%)	<ul style="list-style-type: none"> <li>• Enroll in automotive training</li> <li>• Automotive certification</li> <li>• CDL trained</li> <li>• CDL certificates</li> <li>• Placed</li> </ul>	<span style="color: green;">✓</span> <span style="color: green;">✓</span> <span style="color: green;">✓</span> <span style="color: green;">✓</span> <span style="color: green;">✓</span>	Medium	

Grantee	Funding (% Federal)	Key Project Goals	Met Goals	Impact	Invest?
Intercity Transit, Olympia, WA	\$200,000 (50%)	<ul style="list-style-type: none"> <li>• 748 contacted through outreach</li> <li>• 247 pre-apprenticeship training</li> <li>• 203 receive support services</li> <li>• 119 placed in jobs/apprenticeships</li> </ul>	<span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span> <span style="color: green;">✓+</span>	High	
Workforce Development Council of Snohomish County, WA	\$476,776 (48%)	<ul style="list-style-type: none"> <li>• Outreach</li> <li>• New drivers</li> <li>• Total drivers</li> <li>• Placed</li> <li>• Rides provided</li> </ul>	<span style="color: green;">✓</span>	Low	

Note: After award, Denver RTA decided to not implement its project, so it is not included in this report.

# Introduction

## Program Overview

As a highly skilled workforce is critical to maintaining a competitive and efficient public transportation system, the US Department of Transportation's (USDOT) Federal Transit Administration (FTA) suggests that investment in building and maintaining human capital is as important as the investment in physical capital. With the resurgence of transit in recent years, transit systems face a number of challenges—rapidly changing technology (to vehicles, rights-of-way, and customer information services) and a high number of pending retirements leading to the loss of institutional knowledge, growing ridership, and long-term expansion. These challenges make attracting and preparing new talent increasingly important.

To help address these challenges, FTA published a Notice of Funding Availability for proposals for the Innovative Transit Workforce Development Program (ITWDP). The first was issued in Fiscal Year (FY) 2011, and a second was released in FY 2012 and focused on the frontline transit workforce (as opposed to leadership). In December 2014, a final Notice of Funding Availability was published for the third round of projects to begin in 2015.

Based on a competitive application process, FTA awarded \$8,308,882 for 17 workforce development projects. One project (Denver RTD) subsequently decided not to participate, leaving 16 projects. Recipients included transit authorities, institutions of higher education, Native American tribes, and non-profit organizations individually or as a consortium. These entities were expected to partner with one another and the public workforce investment system, labor organizations, or other appropriate entities to enact workforce solutions. Proposed projects could create a new nationally- or regionally-significant workforce development program or augment or replicate a successful existing program that would have benefits for transit agencies or the transit industry. FTA prioritized proposals focused on one or more of the following areas:

- Targeting areas with high rates of unemployment
- Helping persons in local communities directly benefit from employment opportunities created by the construction and operation of new transit capital projects in their region
- Providing career pathways that support the movement of targeted populations (e.g., new transit entrants and other underserved populations) from short-term employment to sustainable careers

- Helping to increase through outreach and training the employment of minorities, women, individuals with disabilities, veterans, low-income populations, and other underserved populations in public transportation activities
- Addressing gaps in areas with current or projected workforce shortages in fields related to public transportation
- Pre-employment training/preparation/tracking and/or recruitment and hiring

The 2015 ITWDP used funding from both SAFETEA-LU and MAP-21 and had a minimum 50% non-Federal cost share for all funds awarded; applicants were informed that higher percentages would be looked upon more favorably.

The 2015 funding was executed in the first half of FY 2015, although proposed budgets were cut by roughly 20% before execution. Projects were scheduled to run for 24 months from the date of execution in FTA's electronic grants management system; however, some projects were extended, with some concluding in 2018 and some still ongoing at the time of this report.

Projects were expected to produce at least one final project report that would become available to FTA at the end of the project for dissemination and sharing throughout the industry at no cost, in addition to regular performance reporting. Applicants were asked to specify in their proposals a plan for recording the outcomes of the project, including:

- Number of individuals affected by the project
- Cost of the project and share of Federal investment
- At least one measure of quality
- Project descriptions and statements of applicability to other entities

## Program Evaluations

In 2013, FTA hired Axiom Corporation to conduct a summative evaluation of the 2011 funded ITWDP projects, with the goal of determining whether these projects met their goals and whether they were scalable and worthy of further FTA funding and expansion. This evaluation involved document review, protocol development, and structured interviews with project managers or recipients and culminated in a 2015 evaluation report summarizing each project, assessing projects against their stated goals, and providing an assessment regarding whether they merited further investment by FTA. The report concluded with observations about common elements of successful projects and recommendations.

In 2016, Axiom conducted a follow-on summative evaluation covering the 2012 ITWDP projects. This evaluation also was to gauge the effectiveness of

each project and help justify the Federal investment and was to follow the same methodology used in the previous evaluation report. Axiom was tasked with reviewing the workforce development projects to determine their goals, measures of achievement, and potential impact on local or national transit workforce development needs. This evaluation culminated in a 2019 evaluation report similar to the report about the 2011 projects.

Following completion of the report on the 2012 projects, when enough time had elapsed to allow remaining 2015 projects to approach conclusion to the extent possible, Axiom Corporation was selected to conduct a similar evaluation for the 2015 projects, with the understanding that not all would be completed by the time of the evaluation. Axiom conducted this summative evaluation of the 2015 projects using the same methodology as prior efforts—document review and interviews with those responsible for implementing the project. The 2015 ITWDP was essentially similar to the prior efforts with a few distinctions. First, it allowed for a wider range of project topics, with less specific focus on youth or blue-collar workers but more emphasis on career ladders. Second, the 2015 effort had a different funding source and more stringent cost-sharing requirement (in prior efforts, sharing was preferred but not required). The remainder of this report focuses on the 2015 projects.

## Methodology

As was the case for the prior evaluation, the ITWDP evaluation was conducted via two primary methods—document review and telephone interviews with grantees. In addition to the proposals that outlined goals, expected outcomes, and metrics, grantees provided periodic updates on their progress to FTA as well as a project or program final report to FTA. Some recipients expected to conduct surveys of participants or use other performance measures. Axiom reviewed all available documentation provided by FTA related to recipient projects as a primary source. As of the writing of this report, eight of the 16 projects submitted final reports that included information on project activities, products produced, and lessons learned. Axiom also examined materials provided by project staff as available.

Interviews with project personnel were conducted via telephone with grant representatives, with the exception of one organization that was local to Axiom. Given that each recipient's project was unique in nature, scope, funding, and goals, a specific evaluation protocol was developed to guide discussion for each interview. All protocols followed a common structure and addressed common topics, and each was tailored within this framework to discuss elements specific to the recipient's project and issues raised in its proposal or final report. For example, each protocol had an "Implementation" section, but questions varied depending on the specific nature of the project (i.e., a transit career pathways development effort, technical training development, etc.). The use of such

protocols allowed for a systematic and rigorous approach while maintaining flexibility to discuss the unique elements of each project.

Interview participants were contacted by e-mail, then telephone. The purpose of the project was explained, and a time for the interview was determined in subsequent communication. Participants could choose to be interviewed individually or as a group where appropriate. The interviewer in all cases was the Principal Investigator (PI). The discussion was guided by the protocol in a conversational style over one or more teleconferences. Detailed notes were taken as documentation during the interviews. The documentation and interview data were then analyzed to compare project goals and outcomes and address the evaluation questions described above.

## Limitations

The scope of this evaluation is a summative evaluation assessing the individual projects against their specific goals. The objective is to identify projects that appear to be promising for further investment by FTA in addressing the common workforce challenges faced by public transit agencies. This evaluation is not an impact evaluation, and an assessment of what outcomes might have been in the absence of the projects is beyond the scope of this effort, as are return on investment calculations. Moreover, because site visits were not conducted, the primary data on the projects were self-reported data from those involved in implementing the projects. Although all participants were forthcoming about their projects, there was no opportunity to independently verify the information.

Another limitation is that one 2015 project—Denver RTD’s Workforce Innovation Now (WIN)—decided not to participate and was arranging to return its funding; therefore, it was not included in the data collection. Another project, Intercity Transit’s Village Vans, was awarded funding in September 2017, so at the time of data collection in the first half of 2018, it was only six months into the project, not approaching conclusion. Other projects asked for extensions. Therefore, at the time of surveying each recipient for this evaluation report, the outcome estimates continue to be realized.

# Los Angeles Trade-Technical College (LATTC), Institute for Advanced Transportation Technology Training – Transportation Pathway for Academic Career and Transfer Success (T-PACTS)

## Background and Problem Addressed

The Los Angeles Trade-Technical College (LATTC) is the oldest of the nine public two-year colleges in the Los Angeles Community College District (LACCD) and serves the entire 882-square-mile District and offers Associate degrees and completion certificates in selected programs. It is located at the epicenter of substantial transit activity, with more than 40 rail and bus lines serving the Los Angeles region.

LATTC's proposal noted that transportation is an industry that had experienced a strong upward trend in employment in California since January 2010, with average projected growth of 18% by 2020. There was substantial demand for new and replacement positions in key transit and transportation occupations. The California Employment and Development Department projected in 2014 that between 2010 and 2020, transit-related occupations would grow 12–22%. For example, the need for bus and truck mechanics and diesel engine specialists were expected to grow by 14%, rail car repairers by 20%, and rail operations technicians by 22%. Moreover, short-term projections expected job growth within the coming three years; in Los Angeles, there would be more than 900 jobs available due to growth and replacements needed from retirements and promotional opportunities of current workers. Los Angeles County Metropolitan Transit Authority (Metro), the major transit agency and a partner in the project, anticipated hiring 200+ bus, truck, and rail mechanics and diesel CNG/LNG, hybrid, electric vehicle Engine Specialists in the near future. Finding qualified candidates was reportedly challenging for regional employers in the transit industry. Whereas most regional transit companies had internal on-the-job training available, the burden of training employees with very low skill sets made training cost-prohibitive without external funds. Finally, in addition to new entrants to transit, there remained a need for skills upgrading for incumbent

workers due to rapid technology changes, such as from diesel to compressed natural gas (CNG) and electric and hydrogen vehicles.

## Proposed Workforce Solution

The project proposed by LATTC had three primary strategies to address the workforce issues described above. First, LATTC project personnel would establish and implement the LATTC Institute for Advanced Transportation Training, which would implement project innovations. Second, through the Institute, partners would develop and deliver new entrant and incumbent workforce training. For new entrants, the project would develop and launch a Transportation Pathway for Academic Career and Transfer Success (T-PACTS), a workforce model that integrated a transportation competency framework with an innovative workforce development approach. T PACTS would include outreach, recruitment, retention, prior learning assessment, and academic and career readiness strategies for new entrants in an effort to increase the diversity of the transit workforce. In addition, an incumbent training strategy would provide an opportunity for the dissemination of new industry practices. Finally, LATTC proposed to strengthen existing programs of study and develop a Rail Systems Technology, Diesel, and Related Technology and other related transportation-related career pathways.

## Partnerships

The lead applicant for this project was LATTC, which also served as the primary training partner. Its role was to develop the Institute and implement the T-PACTS strategies and activities. LATTC, as lead applicant, was also responsible for all fiscal management and reporting, data collection, outcomes measurement, and preparation and dissemination of reports.

The second primary partner was Metro, which provides the majority of transit services in the county. It is the third largest transit agency nationally by number of passenger trips and the fourth largest in terms of passenger miles. Metro was facing a high number of possible retirements as well as expansion due to passage of a bill to fund major transportation projects including rail connectors, rail line and subway extensions, express bus extensions, and transit corridors. Metro's role in the project was to provide subject matter expertise and information about industry standards and direct assessment protocols. It also referred incumbent workers and new entrants to LATTC for pre-employment and other training in addition to making workforce projections. Metro provided LATTC access to its transportation and maintenance facilities for additional training and orientation sites for professional development and technical assistance for faculty.

The third partner was the Vernon-Central/LATTC WorkSource Center, an American Job Center that is part of the workforce investment system. Although not part of LATTC, the Center is located on its campus, providing ready access to employer information. It provided support services, including personal career counselors, educational assessment, job referrals, workshops, and support groups for job seekers. The Center also assisted with the recruitment and outreach of eligible participants from the targeted populations, including women, individuals with disabilities, veterans, low-income populations, and other identified underserved populations. Most important, the Center assisted with job placement and retention services.

The final partner was the Amalgamated Transit Union (ATU), the union that represents all maintenance occupations for Metro in terms of equipment and facilities occupations. ATU provided the voice for labor in the project as well as technical assistance and curriculum review and served on the Advisory Board.

LATTC had pre-existing relationships with all partners, particularly Metro, with whom it has worked for many years, as Metro is one of the largest employers in the area. LATTC representatives reported no problems in forming the partnerships, although they noted getting ATU participation and support from other unions was the most sensitive. It noted that having ATU helped facilitate conversations with other unions present at Metro that might be affected.

## Project Implementation

### Establishing the Institute

The first major task for the project was establishing the Institute. (Note: Although the initial name from the proposal was the “Institute for Advanced Transportation Technology Training,” during the formation process the name ultimately adopted was the Transportation Workforce Institute [TWI]). Establishing the TWI was expected to involve assigning a Director, establishing and convening an Advisory Board, establishing a workforce calendar, delivering specialized workforce training, and developing and disseminating collateral material.

Physical space was established at LATTC. The project was staffed with four full-time positions—Director, Senior Fellow/Advisor, Curriculum Developer & Website Manager, and Program Coordinator. The staff developed procedures and practices, including a multi-year work plan, a monitoring and reporting system, and protocols for routine tasks. It should be noted that whereas LATTC is the physical and fiscal seat of TWI, it is just one member of the Institute, like any of the many other educators and employers who participate.

Early on, the project conducted an environmental scan to identify transportation-related centers and institutes, educators offering training and

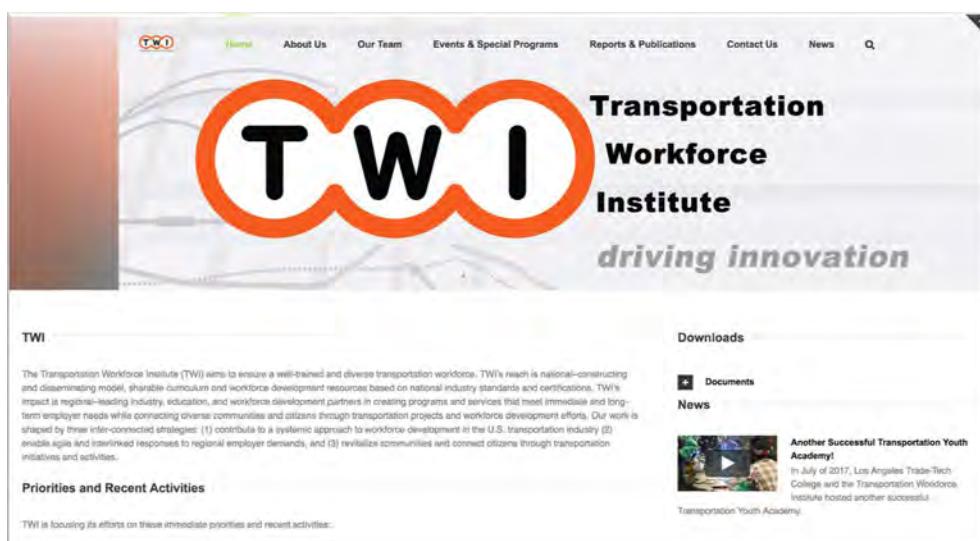
post-secondary credentials for targeted occupations, industry associations and certifying agencies, and key employer and industry leaders. Results were used to identify possible advisors, illuminate best/promising practices, and identify potential collaborators.

Next, TWI attempted to secure key advisors. Within the first year, it obtained commitments from Advisory Co-Chairs Philip A. Washington, CEO of Metro, and Laurence Frank, President of LATTC. Although the initial plans were for TWI to have an Advisory Board, it was determined that this would not be the best approach for getting the needed input for two reasons: 1) it expected to operate at both regional and national levels, and 2) many potential advisors were already committed to other institutes, consortia, or networks. Instead, it decided to do broad-level outreach by hosting and attending various events to gather information and obtain advice. In fact, over the course of the project, TWI convened/hosted and participated in 42 regional and national meetings and events for the purpose of garnering industry and educator input/advice, commitment, and partnership. Through these activities, TWI engaged with numerous transportation industry and education advisors that informed the approaches and activities of TWI. For example, it hosted the Greater Los Angeles Transportation and Warehousing Sector Educators Regional meetings. Over the course of these meetings, TWI facilitated the development of a Framework for Action to guide post-secondary workforce development strategies for middle-skill occupations in the transportation and warehousing sectors.

TWI collateral materials were developed, including logos, letterhead, business cards, apparel, a newsletter, a PowerPoint presentation, and report templates. A branding/style guide and other “standardized” materials were developed to ensure consistency. TWI’s website was established and expanded.

**Figure 2-1**

TWI Website  
Home Page



TWI developed an incumbent workforce training series, which was refined, updated, and expanded based on feedback and employer needs. TWI standardized the training materials, incorporated web-enabled learning technologies, and added topics as requested by industry partners. By the conclusion of the project, the training series began with a one-week orientation that prepares students for the program and includes assessment of participant learning styles, digital literacy, use of the Learning Management System (LMS), and technical writing. Following orientation were 15 individual training modules. The orientation and five of the modules were developed as part of an apprenticeship program with Metro, including Rail Safety, Shop Tools, Electrical Theory and Concepts, Mechanical Systems, Electronic Principles, Advanced Diagnostic Equipment, and Car Monitoring/Communication. The other modules included Math Refresher, Train-the-Trainer, Rail Vehicle Pneumatic and Hydraulic Controls, Introduction to Programmable Logic Controller (PLC), Schematics, Hybrid Vehicle Safety, Operation and Troubleshooting, and Brakes I and Brakes II.

Each module consisted of both lecture and practical lab or field exercises. Some course materials and assessments were administered using the LMS. The training series also incorporated audience response capability, simulation labs, and computer-based training to maximize instructional effectiveness. Core content was supplemented with information from proprietary sources such as Snap-on, LogixPro, NIDA, YouTube videos, etc. Information from multiple sources was embedded into the core content to render a complete picture of the subject matter. A wide variety of instructional modes, materials, and resources were incorporated into the training series. Participants accessed a virtual classroom established in the LMS to submit assignments, retrieve handouts, and complete assessments. Individual and group tutoring was available by appointment or drop-in basis. Pre-, post-, and practical assessments, in addition to quizzes, were used to determine the knowledge, skills, and competencies of participants. Assessment results were used as data to refine the program and improve participant learning using a combination of pen-and-paper and computer-based assessments.

### New Entrant Workforce Development and Pre-Employment Training

The second major task was delivering new-entrant and pre-employment training. This involved developing a strategy for project outreach and recruitment, developing and piloting a Transportation Pathway Orientation, establishing a Transportation Education and Training Pathway Plan, enrolling and training participants, and delivering trainings based on needs identified. TWI developed a group of more than 90 outreach organizations and communication channels. Outreach organizations included regional education and workforce development organizations and community-based organizations, including those who serve formerly incarcerated individuals, homeless individuals, emancipated youth, and

women. These outreach groups and channels were used to announce and recruit students for orientations and other training programs developed by TWI.

For the transportation career pathway orientation, LATTC built upon its existing short Transportation Pathway orientation conducted for all introductory classes in the Pathway. The orientation was significantly expanded with the notion that students should be “on-boarded” into a career in transportation and to be successful in college. TWI developed online materials and resources to expand the orientation and to provide more direct-to-student resources such as videos exploring the US transportation system and careers, online interest profiles, a tool for assessing career interests and discovering transportation careers matching those interests, and an online tool called Career Coach. The onboarding program was further revised in the 2017 Winter school session to meet the newly-expanded California State requirements for orientation, assessment, and counseling. Also added were instructional modules incorporating college and career readiness competencies that are part of LATTC’s competency model called Pathways to Academic Career and Transfer Success (PACTS). The competencies added included information technology and digital literacy skills, basic computing skills, awareness of college and community resources, and specific pathway readiness competencies such as safety and tools. The expanded orientation resulted in a two-week on-boarding program consisting of 20 modules called “Pathway Ready.” The on-boarding program allows students to arrive for their first classes comfortable and prepared because they have received an individualized development plan, understand the resources available, are familiar with the critical technologies they need to use (e.g., LMS), and can focus on success in their coursework.

While the orientation was being expanded, numerous orientations were conducted with new students in the Transportation Pathway for the training offered described below.

TWI developed a Transportation Youth Academy (TYA), which was not originally a substantial part of LATTC’s proposal. However, based on advisor and employer input, it was determined that a program was needed to address the lack of youth awareness of transportation career opportunities to build a pipeline to future workers. A representative from TWI indicated that many youth continue to view transit careers as “bus drivers and train operators.” There is an opportunity and need to show them that transit jobs involve high technology and expand beyond operator positions. To address this need, TWI designed, developed, and implemented the TYA, an “orientation-like” program to increase high school student awareness and understanding of the transportation industry and career opportunities while gaining fundamental technical and teamwork skills. TYA activities and projects were designed to incorporate engaging videos, content, and “hands-on” activities and projects. TWI designed the activities to be

offered in an intensive five-week format to allow for summer programs, but the module nature has the flexibility to be made longer or shorter. Student support strategies were also incorporated into the program such as the use of tools and resources such as the California Career Café, a virtual career center for California community college students. TYA modules include:

- Exploring US transportation system and careers, assessing career interests and discovering transportation careers that match
- Designing, constructing, and manufacturing working monorail transportation system
- Researching and recommending routes for monorail system in Los Angeles
- Designing monorail system routes using GIS
- Developing marketing campaign for monorail system

TYA was offered in the summers of 2016 and 2017. TWI packaged TYA materials, resources, and activities on a youth website and on the TWI website. The youth website was designed to appeal to youth, and all resources and materials on the site were designed so students can self-explore and independently complete activities with little to no teacher/instructor assistance. The site can be used to assign activities to students to work independently or to augment, supplement or support in-class instruction. The youth website is available at <http://pathways.lattc.edu/futureready/>. The TYA page on the TWI website was designed for educators and workforce practitioners to adapt the materials to suit their purposes and includes instructor guides for each activity and project; it is available at [www.twi.lattc.edu/tya/](http://www.twi.lattc.edu/tya/).

In addition to the above, TWI wanted to ensure students could receive credit for their prior learning experiences, particularly for veterans. During the earlier environmental scan, research was conducted on Prior Learning Assessment (PLA) tools, resources, policies, and practices, including examining ONET tools developed to crosswalk military occupations to postsecondary programs of study, American Council on Education (ACE) credit recommendations, College Board CLEP exams, and Defense Activity for Non-Traditional Education Support (DANTES) courses and exams. TWI then created three crosswalks using PLA resource scan results:

- Crosswalk of military occupational classifications and titles to transportation pathway programs
- Crosswalk of Automotive Service Excellence (ASE) certifications to existing automotive technology, diesel and related technology, and the new rail vehicle maintenance courses so certifications may be used for PLA and credit-by-exam purposes

- Crosswalk of CLEP exams to LATTC courses that meet general education degree and transfer requirements

Simultaneously, LATTC developed policies and procedures for incorporating PLA into the existing programs of study at the college, including transportation. A presentation to educate faculty and staff on the policies pertaining to credit for prior/other learning (e.g., PLA) was also developed and disseminated. The LACCD, with assistance from TWI/LATTC staff, updated its Credit by Examination (CBE) Board Rule to be in alignment with Title 5 of California Education Code, thus enabling LATTC to establish an updated credit-by-exam (e.g., PLA) process. In addition, all courses in the transportation pathway were approved as being eligible for credit-by- exam (e.g., PLA). As a result of these activities, credit was granted based on PLA in transportation for the first time in the 2017 Fall semester.

In addition to educating and training the new entrants and pipeline to the transportation industry, TWI also focused on providing incumbent worker training. Using the curriculum of the transportation workforce training series described previously, TWI delivered multiple incumbent worker trainings during this project, with each course listed above offered during the project and one offered during two different academic quarters.

### Developing Curriculum for Rail Systems Technology and Enhancing Existing Entry-Level Programs

The third major task of the project involved developing a curriculum for a course series on Rail Systems Technology and improving the entry-level courses that existed in this area. To do this, TWI identified the core competencies needed by examining material from the American Public Transportation Association's (APTA) Rail Vehicles Maintenance Training Standards, National Institute for Automotive Service Excellence's (ASE) Study Guides for ASE certification tests, Metro's incumbent workers, and Rail Operations and Rail Fleet Services and Wayside Systems staff, among others. Once identified, these competencies were validated by asking organizations with rail maintenance functions such as Metro and private organizations. TWI also identified common, foundational competencies for diesel and related technology technicians using a similar process. Combining the results of both competency identification processes, TWI created the “Transit/Trucking Vehicle Maintenance Competency Model: Building Blocks for Entry-Level, Middle-Skill: Vehicle Maintenance Occupations.”

During the competency identification process, TWI prepared a crosswalk with ASE standards and certification assessments that was used to determine which ASE assessments could be used for PLA/credit-by-exam purposes.

Support strategies, such as those described earlier for other TWI programs, were incorporated into diesel technology courses/program. LATTC acquired/used resources from the Cummins Virtual College, including computer-based training and certification testing, and also incorporated the CDX web-based, textbook, and support system, including videos, animation, tutorials, and other web-based resources (grouped by repair topic). EdReady was also used to support students taking mathematics courses.

During this project, TWI worked with LATTC to modularize all diesel technology courses into a Parts A and B. This enabled LATTC to offer the un-modularized versions in the morning and the A and B versions in the afternoons and evenings so students who wanted to attend full-time could complete the program on an accelerated timeline. All were approved for credit-by-exam (PLA), offering yet another method for accelerated completion.

Once TWI identified the common, foundational competencies for rail vehicle maintenance technicians, it and LATTC translated them into learning objectives and instructional topics that served as the basis for creating modularized courses in rail technology. These modules would be used by the college as it transitioned to a competency-based delivery model.

During this project, TWI and LATTC created a certificate and an A.S. degree program in Rail Systems Technology and Rail Vehicle Maintenance. Both programs were approved by the California Community Colleges Chancellor's Office in Fall 2016, and the first cohort of students was enrolled in the 2017 Spring semester. The common, foundational competencies for rail vehicle maintenance technicians, inventoried by TWI, were used for developing the program. The following classes are offered as part of this degree program:

- Rail Systems Overview, Safety, Tools, and Mechanical Principles
- Rail Electrical and Electronic Principles
- Rail Vehicle Pneumatic, Hydraulic Controls, HVAC, and Car Body Maintenance
- Rail Diesel Engine Fundamentals and Rail Accessory/Support Systems

## Outcomes

LATTC and its project partners proposed to create the TWI, develop entry level training programs, enhance incumbent training, and develop a curriculum for Rail Systems Technology.

The first major task for the LATTC project was to establish the TWI, which it and its partners successfully created. TWI's initiatives are carried out in collaboration with a network of more than 30 community colleges and universities and numerous employers, agencies, and community-based

organizations throughout the greater Los Angeles area. As a result of networking activities and the 42 events hosted or attended, TWI representatives say they have emerged as a “go-to” workforce development intermediary for the transportation industry in the Los Angeles region, noting that “TWI now serves as a convener and facilitator, builder and broker, and researcher and quality assurance agent for data-driven, collaborative approaches to workforce development issues and opportunities that produces targeted results.” In fact, they note they have taken on a role in Metro’s Los Angeles’s Workforce Innovation Now (WIN LA) project, a new workforce development project created to focus on careers in the transportation industry. WIN-LA is an initiative that will create career pathways in construction, non-construction opportunities in operations/maintenance, administration, and professional services within Metro and throughout the transportation industry, modeled on Denver’s WIN program, an example of a previous successful FTA model.

The second major task involved creating the orientation process (T-PACTs), which provided an entire on-boarding process over two weeks, and providing orientation and incumbent training. During this project, 2,225 individuals (unduplicated) participated in transportation-related education and training programs and activities. This includes everyone that was touched by the program, including all classes, orientation participants, incumbents, youth academy, etc. As shown in Table 2-1, a total of 1,802 participated in orientations, 154 participated in incumbent worker trainings (30 of which were part of an apprenticeship program), 2,057 completed coursework, and 76 completed 157 certificate and/or degree programs. (Note: An individual could participate in one or more education and training program; likewise, a student could complete more than one certificate and/or degree program.) TWI also developed a youth academy curriculum and materials that were not originally considered in the proposal but are now available for others to use. The curriculum is being used in at least two locations per the TWI representative.

**Table 2-1**

*LATTC Project  
Outcomes –  
Goals and Actual*

Goal	Goal Number	Actual Number
Create Institute	1	1 (100%)
Participants completing industry orientation	175	1,802 (1,030%)
Participants completing T-PACTS (or coursework)	100	2,057 (117%)
Incumbent workers completing skill upgrade courses	120	154 (128%)
Number receiving a certificate/degree	-	76
Certificates/degrees	-	157
Youth academy participants	-	47
Competency models created	1	1
Curriculums developed	2	3
Degrees/certificates	-	157

The numbers cited above far exceeded expectations of the project proposal, particularly the 1,802 who participated in orientation, which is more than 1,000% of the goal. Project representatives indicated that when they wrote the proposal, they considered the orientation only for diesel and related students—that is, mostly bus mechanics. However, as they worked on the competency assessments, they realized that many programs, including rail, bus, automotive technicians, etc., shared the core competencies, so they decided to bring the orientation services to all students entering those programs. Instead of focusing on small group, they were “more holistic” and implemented an onboarding strategy for an entire pathway.

Although it was too early for LATTC (at the time of reporting) to have collected employment data, if their results follow prior experiences, it could expect 83% to be employed after six months and 84% to earn higher wages following the program.

The third major task resulted in the Transit/Trucking Vehicle Maintenance Competency Model: Building Blocks for Entry-Level, Middle-Skill: Vehicle Maintenance Occupations, and a core curriculum for a Rail Systems Technology Program.

## Budget and Matching Funds

The ITWDP provided \$750,000 in Federal funds (50% of total funds). The majority of matching funds were used for salaries, benefits, and materials. LATTC secured California State Community College Chancellors Office support for career technical education. This funding supplemented partner contributions for equipment, training aids, and college funding and salaries. It also originally budgeted the TWI Director as full-time, but it charged only a percentage of that to FTA; it was able to leverage college and other funding to help cover that cost. The only major budget adjustment noted was that there had been budget planned for apprenticeships, but this was determined to be prohibitive. The project was closed in April 2019.

## Impact

A representative from LATTC identified a number of areas of impact. First, it reported seeing a rise in degree and certificate attainment, particularly because community college enrollment often runs counter-cyclical to the economy; yet they were seeing these degree and certificate awards increase in their area during good economy.

A second impact was implementing the two-week T-PACTS orientation. Having an external source made it more feasible to drive this change and helped ensure that participants were ready for success and would successfully complete their coursework.

Although there is no employment data due to the lag in reporting, the LATTC representative indicated that students were letting them know they had been hired, including by MetroLink (commuter) or Metro. Transit benefitted from a pipeline of talent.

LA Metro has come to rely on LATTC and TWI for many of its additional workforce initiative programs. For example, being invited to be a part of the new WIN-LA project is an indicator of trust for TWI. The grant has concluded, but the work has continued and expanded.

## Lessons Learned and Recommendations

The project final report indicated the following lessons learned and advice for transit agencies considering a similar project.

### Lessons from Establishing the TWI

- There is a need to closely consider the business model for Institute sustainability. Although the college engaged in discussions from the start about long-term sustainability and a business model, there were few models in which a public community college was able to develop an Institute business model from design to implementation. Given State regulations, this may require policy discussions and procedural changes at a college to support a business model that has not existed previously, as was the case for TWI.
- There is insufficient coordination of transportation workforce development organizations and practitioners. National environmental scan results revealed there are many organizations (e.g., centers, institutes, associations) and education, training, and workforce developments activities throughout the US; however, there is no single organization (intermediary) or place (repository) to obtain a holistic view or snap-shot.
- Rather than establishing a formal advisory board, TWI chose to use a networking approach to garnering input and commitment to its work. However, in the absence of having a formal advisory board, the role of the co-chairs needs to be reconsidered, including mechanisms for keeping them engaged.

### Lessons from Developing T-PACTS Orientation and Youth Academy and Providing Incumbent Training

- Instructional technology significantly expanded the breadth and depth of the curriculum. Breadth was expanded by the ability to access information and supplemental proprietary materials external to the classroom, either through Internet access or the LMS. Depth of the curriculum is enriched with instructional materials and resources provided through the LMS, computerized simulation labs, and computer-based trainings (e.g., NIDA, CISCO, Snap On, and LogixPro).

- Implementation of a polling interface for PowerPoint (e.g., Turning Point Technologies), iPads, and interactive smart boards changed instruction from lecture to interaction and collaboration, whether instructor-delivered, individual student-driven, or small group-oriented.
- Instructional technology removed barriers. Through the use of the LMS, instruction extended beyond the school building or classroom through remote access to course content. Ad hoc or informal student support was also provided through the LMS, the training series' main website, and emails to faculty and classmates.
- Instructional technology provided powerful feedback loops. With the help of real-time assessments, online quizzes, and pre/post assessments in the LMS, students received immediate feedback and made corrections to their work. Based on feedback, instructors created learning experiences around individual student needs and effectively managed and improved whole-class, small-group, and individual learning experiences.
- Right-sizing orientation was a challenge. The college will continue to experiment with determining the ideal amount of information, time, and activities to cover in the orientation. It has been found that too much information overloads the students and is not retained. However, most elements in the orientation were useful and, in some cases, necessary to ensure that students were successful in college. Determining which orientation elements should be optional or required and the timing of the required elements so as not to deter or delay student progress into and through the pathway was also part of this challenge.
- Many college and career readiness competencies in Pathway Ready (Pathway Orientation) are generic in nature and apply to any pathway, while others are specific to the industry and occupations of the Pathway. The ratio of generic-to-specific curriculum is about 95–5. Therefore, staff that implement Pathway Ready needed to work together to co-develop, assess, and improve generic portions and share best practices they learned from unique activities they implemented.
- TWI and the college considered ways to deliver elements to students at the time the information was useful or would be applied by them. For example, scholarship information is covered in orientation, which includes only a snapshot of available scholarships at that point in time. Another option would be to deliver scholarship information to the students at the time they become available along with information, tips, and tools for applying.
- The development of the Transportation Youth Academy was an example of how, even though plans were developed to guide an Institute's priorities and endeavors, remaining responsive to industry needs required new or shifts in priorities and a willingness to develop new programs or services.

- It was initially thought that incorporating PLA would primarily focus on the development of the assessment process, as policies already existed to support granting “credit-by-exam.” However, this activity was significantly delayed due to unfamiliar, misunderstood, and outdated policies and lack of procedures. Therefore, a significant amount of time and effort was required to inform and educate constituents, advocate for policy changes, and develop and implement new procedures.
- Because the trainings were developed and experienced by workers using a “modularized” approach but delivered by different instructors and programs within the transportation pathway (e.g., diesel technology, electronics, etc.), TWI found it was necessary to brand and standardize training materials to ensure consistency, continuity, and quality control.
- The schedule by which an employer wants training to occur may not directly align with the college’s more traditional course schedule. This requires new or altered procedures and policies to accommodate a flexible and adaptive schedule. In addition, there may be large gaps when training occurs due to expected or unexpected delays.

### Lessons from Developing the Railway Systems Curriculum

- Industry standards and certifications are key competency resources. TWI was fortunate that there were established and industry-recognized training standards, certifications, and assessments. These resources were invaluable for “mining” competencies to incorporate in education and training programs. In addition, they were useful in getting feedback and commitment to the resulting competency models by industry advisors and faculty.
- When implementing technology-based tools and resources into courses and student support, additional instruction or assistance was required for students who did not possess adequate computer or computing literacy or functional skills (e.g., using a mouse, keyboarding, etc.), so the technology itself is not a barrier to learning and competency attainment.
- As activities and approaches are developed (such as course modularization) to accelerate completion, it is important to plan or map out the entire pathway a student will take once acceleration begins so bottlenecks to progress or attainment will not be created.

### Overall Lessons

- Much time and effort must be spent to systematically and routinely establish, assess, and revise an institute’s strategy for maximum impact. For example, it must form the initial strategy, ensure that the strategy fits with the host institution’s strategy, communicate the strategy to internal and external constituents, and connect data and analytics to the strategy for measuring impact. This is particularly important during the start-up phase of an institute but must not be ignored during other phases of development and maturity.

During this project, numerous strategy sessions were conducted to ensure TWI and college staff and leaders engaged in these and other strategy-related activities. During the maturity of an institute, these sessions will need to continue but may not be as frequent.

- Leadership commitment is critical. There are many aspects of establishing and operating an institute that will have an impact on or can be bolstered by the host institution, such as policy and procedure changes, leveraging resources, developing partnerships and relationships, etc. The commitment (not just support) of key leaders of the institution (e.g., president, vice presidents, union representatives, key constituents, etc.) will ensure the institute achieves its goals, has the capacity to implement its initiatives and activities, and will experience long-term sustainability and impact. Frequent and substantive interaction with key leaders is required to garner and sustain such commitment.
- Business models need to mature and adapt as an institute matures. Consideration and a willingness to develop and adapt business models that support the development and maturity of an institute are necessary. Careful consideration should be given to establishing the most advantageous business model to support the growth and sustainability of an institute, which may require policy and procedural changes.
- Culture that supports innovation and responsiveness to industry needs is important. Establishing and nurturing a culture within an institute and its host institution directly impacts the institute's ability to be responsive and adaptive to meet an industry's needs particularly given the rapid pace of change. A culture that is risk-tolerant, receptive to external opportunities and alliances, willing to adapt and adopt new policies and practices, tolerates issues, challenges, and ambiguity, and focuses on lessons learned while experimenting will ensure an institute's success.
- Branding is important to establish an institute's identity that is separate and distinct from its host institution. Attention and careful consideration must be given to co-branding, particularly during the start-up phase of an institute so its independent identity can be established and recognized.
- Having labor partners involved from the very beginning is a critical factor for success. Since many of the occupations targeted for education and development are covered by one or more unions, the best intentions and ideas can be stymied without union partnership. Such representatives can identify issues before they become problematic and help work through potential barriers to success.
- Identification of a champion in the transit agency is important. TWI benefited by having a Senior Director for Strategic and Organizational Planning as a champion within Metro. There can be leadership or other turnover within the employer agencies, reducing continuity. Having a champion to advocate for the project through transitions can be helpful.

## Conclusion and Further Investment Recommendation

LATTC set out to create an institute to promote and expand transportation workforce development; through its Institute, it improved the orientation process for new entrants to better prepare them for education for transportation-related careers, provided training to incumbents, and developed additional curricula.

The project was successful in that it met—and, in some cases, far exceeded—all objectives they set out to achieve. The flexibility to identify, recognize, and fill needs helped the project to succeed. The recognition that some core competencies required to prepare future bus repair technicians are also central to a wide range of new entrants to the transit career pathway enabled them to provide its Pathway orientation to many more people than initially expected. Likewise, when stakeholders identified the need for a youth academy to engage youth and expand their view of transit occupations, it was able to create a new curriculum. There also appeared to be considerable rigor based on identifying existing competency models and requirements in developing new curricula. This type of rigor appears to be a benefit of having academic institutions partner with employers.

Many benefits to this project make it worthy of further investment, including well-developed courses, better-prepared entrants into the transportation and transit workforce, youth that can be engaged to help create a pipeline, and new competency models. The fact that LATTC saw increases in degrees and certificates in this pathway despite a strong economy is a good indicator of value. Likewise, the fact that TWI was asked to help in the WIN LA project shows that it has gained a foothold in the local environment.

The only caveat to the suggestion to fund similar projects in the future is, as noted by LATTC representatives, a large number of such institutes already exists. Before funding an additional institute, a needs assessment of at least the local/regional environment could be conducted to ensure demand for an additional collaborative institute, such that the effort would not simply be duplicative.

## Success Stories

**Robert**\* was a student who graduated during this project. He had been working in the entertainment industry and, after 25 years, was experiencing layoffs typical for the industry. After his most recent layoff, he decided to pursue other career options and became intrigued by the massive trucking and transportation system. It occurred to him that this was an industry in which he could have a bright future, coupled with his love of cars and trucks. He discovered the Diesel Technology program at LATTC. Within two years, he graduated from the program, and within four months he obtained a full-time job working for Cummins. He credits the extensive knowledge he gained from LATTC faculty and the hands-on skills he acquired for his employment success. He is happy doing work he loves and enjoys the employment stability the transportation industry and his company provides.

Positive employment outcomes also occurred for incumbent workers at Metro who completed the transportation workforce training series as part of their joint apprenticeship program. Previous hourly salaries of participants ranged from a low of \$23.75 to a high of \$38.67, with an average of \$33.21. Those who successfully completed the program were promoted to the Maintenance Specialist job classification with an hourly salary of \$40.48, a total annual salary of \$24,040.

**Sylvia** is another example of how education and training can positively impact career and life trajectories. She was a service attendant at a regional transit agency performing non-technical duties such as checking vehicle fluid levels, cleaning and parking vehicles, and dispensing fuel, engine oil, and engine coolant. After participating in a 22-week sequence of training modules, she was promoted to a vehicle maintenance position in the Rail Division with a substantial pay increase.

*\*Note: Names have been changed for privacy reasons.*

## Community Career Development – Moving Employees into Transit-Related Opportunities (METRO)

### Background and Problem Addressed

Community Career Development, Inc. (CCD) is a non-profit organization that operates three Los Angeles WorkSource Centers (one-stop career centers) in Compton, Central Los Angeles (Metro-Wilshire), and Atwater (Van de Kamp). In 2006, CCD partnered with Los Angeles Valley College (LAVC) to help the Los Angeles County Metropolitan Transit Authority (LACMTA) meet its operator recruitment and hiring challenges. LACMTA serves as transportation planner and coordinator, designer, builder, and operator for one of the country's largest, most populous counties—more than 9.6 million people (nearly one-third of California's residents) live and work within the 1,433-square-mile service area.

Moving Employees into Transit-Related Opportunities (METRO) was designed to address two interrelated needs. The first was the need for a skilled transit workforce that reflects the demographics of the communities served. Statistics from the Employment Development Department (EDD) from November 2014 indicated that the largest number of new jobs created in California were in transportation. EDD projected a 12.8% growth in the number of transit and intercity bus operators and an 18% increase in school bus drivers in Los Angeles County between 2012 and 2022. Due to retirements and the expansion of rail lines, LACMTA expected to hire 200–300 new bus operators annually, and MV Transit would need to hire an additional 250.

The second need addressed was for training and access to well-paying jobs for currently unemployed/underemployed job seekers in low-income communities. At the time of the proposal, Los Angeles continued to face a significant unemployment problem. As of September 2014, Los Angeles County had an official unemployment rate of 8.1%, with 391,700 unemployed workers. The rate was worse in key areas—for example, 13.4% in Compton, 13.7% in parts of Pico-Union, 8.5% in Pacoima, and 9.5% in Palmdale.

Meanwhile, 50% of Metro's 433 bus and rail supervisors were eligible for retirement, but very few internal candidates were successfully passing their

promotional exams. Many of the unemployed in these communities lacked the skills, knowledge, and understanding of the process necessary to successfully obtain transit-related employment. When LACMTA first started working on this problem, only 10% of applicants were able to meet its hiring requirements, and the agency was spending \$4–5 million annually in overtime costs due to operator fatigue, absenteeism, retirement, attrition, and the failure of candidates to pass the new-hire intensive on-the-job training program.

LACMTA also sought a workforce that more closely reflected the demographics of its multi-lingual users. In addition, Kinkisharyo, a sub-contractor to LACMTA that builds rail cars, was assembling and testing 78 light rail cars for LACMTA at its Palmdale facility and needed to employ additional workers and requested assistance with direct job referrals. MV Transit and the Long Beach Transit Authority also requested assistance with recruitment.

## Proposed Workforce Solution

To address these issues, CCD proposed to market employment and training opportunities, assess and select appropriate candidates, and provide training and wrap-around services. Enrollees would participate in one of three components:

- The Bus Operator Training Academy (BOTA), consisting of two weeks of classroom training followed by six-eight weekly workshops and behind-the-wheel experience. BOTA's training modules, designed to meet LACMTA's hiring standards, included customer service, critical thinking, pre-trip inspections, personal development, test-taking, resume-writing, interviewing, technology, ADA regulations, Class B licensing, and behind-the-wheel experience.
- A new Transit Operations Supervisor Prep Academy (TOSPA), created and piloted for current bus/rail operators and maintenance workers interested in seeking promotion. This component was designed to address LACMTA's concerns about the lack of successful internal candidates for supervisory positions.
- Work Readiness for Transportation (WRT), developed and implemented to recruit and provide employability skills for rail-car manufacturing and other transit-related positions.

## Partnerships

The lead agency for this initiative was CCD, which has been providing a wide range of workforce development services for individuals and businesses for more than 40 years and currently operates three WorkSource Centers as part of America's Job Centers of California. In 2018, more than 16,000 low-income job seekers, primarily from the target areas, used the services of CCD. As the lead entity, CCD was responsible for all grant management, including participant

and fiscal reporting, partner coordination and communication, client tracking, coordinating evaluation and continuous improvement, and delivering the final report and products. It also was responsible for recruiting, screening, assessing and enrolling trainees; providing job readiness; case management; and wrap-around support services and follow up services.

LAVC is a two-year public college located in the heart of Los Angeles's San Fernando Valley. The college's mission is to offer transfer education, job training, and lifelong learning to residents of the San Fernando Valley and beyond. LAVC, one of the leading community colleges in California, is a Hispanic-serving institution with approximately 20,000 students living primarily in Los Angeles communities. LAVC was responsible for all academic-related activities, including curriculum development, classroom instruction, behind-the-wheel instruction, and skills certification. LAVC worked with METRO staff to customize curriculum and create pre-supervisor preparation training; recruit, train, and supervise mentors; and provide tutoring as needed. It participated in planning, orientation, participant assessment and selection, evaluation, continuous improvement, and development of the final report and products.

LACMTA, as the transit authority, provided leadership and technical expertise in the development and updating of curriculum; staff to assist in orientation, screening of trainees, and classroom guest speakers; classroom space and bus passes or parking permits for program participants; and a bus and bus operator for the behind-the-wheel portion of the training. Its staff assisted with outreach and recruitment, program evaluation, continuous quality improvement, and development of deliverables. It also interviewed all BOTA program graduates.

Kinkisharyo provided information about its staffing needs and interviewed and hired 25 candidates referred by CCD. The Los Angeles City Workforce Investment Board (WIB) assisted with recruitment by publicizing the opportunities through its 17 WorkSource and 14 YouthSource centers that serve more than 160,000 job seekers annually as part of America's Job Centers of California (AJCCs). Los Angeles/Ventura Region EDD assisted with recruitment by publicizing to its job-seeker clientele including veterans, Unemployment Insurance (UI) recipients, and those who had exhausted their UI benefits. MV Transportation, the leading provider of paratransit services and the largest privately-owned passenger transportation contracting firm in the US, provided information about its staffing needs and interviewed and hired program participants as bus operators. Long Beach Public Transportation Company, a bus operator serving Long Beach since 1963, provided information about its staffing needs and interviewed and hired program participants as bus operators.

Many partners had worked with CCD on a 2012 FTA Innovative Transit Workforce project and found it to be a productive collaboration among these transit and educational partners. Through their work together, they found the

niche of what transit employers required in their candidates. A few partners were new, including MV Transportation and Kinkisharyo, but CCD had worked previously with both. Long Beach Transit was a new partner.

Overall, partnership formation went well. However, due to administrative delays in the execution of the project, Kinkisharyo's needs changed, and CCD was able to work with them only on recruitment, outreach, and referrals for job interviews.

CCD and its partners held a kickoff meeting to announce the award and met every one–two months but communicated more frequently with partners about project progress, enrollment, and attendance, and case managers spoke often to instructors and facilities. CCD characterized its communication with employers as “transparent”—if there was an issue with a participant, CCD ensured that the employer and project staff were aware of the situation.

## Project Implementation

### Project Conceptualization

CCD worked with LACMTA in developing the project. LACMTA identified a need, and CCD assessed the problem; based on that assessment, it developed courses and solutions. LACMTA was spending more than \$4 million in overtime pay because it could not recruit and retain quality bus operators. It realized a need to evaluate its recruitment and selection process and devote more resources to preparing candidates for success. Supervisor training arose from a need to better prepare candidates for promotion to succeed at attaining the promotion.

### Outreach and Marketing

CCD marketed the project to the targeted areas and target populations through a variety of media. In preparing marketing materials, particular attention was given to inclusion of women, a group that is traditionally less likely to participate in this field. Marketing methods included print advertising and e-blast and flyer distribution as well as postings by the LA County and LA City WIBs and their American Job Centers, Los Angeles/Ventura Region EDD, Los Angeles County Public Social Service system, and an extensive network of community- and faith-based and veteran organization partners. It also included postings on employment websites, attendance at job fairs, and public service announcements and press releases, presentations to community-based organizations, a dedicated website, and use of social media. The placement of recruitment placards on LACMTA buses and a link to the program from its website were made to increase the visibility of these opportunities to transit users. LACMTA assisted in publicizing the TOSPA program to their employees.

**Figure 3-1**

BOTA Bus Placard

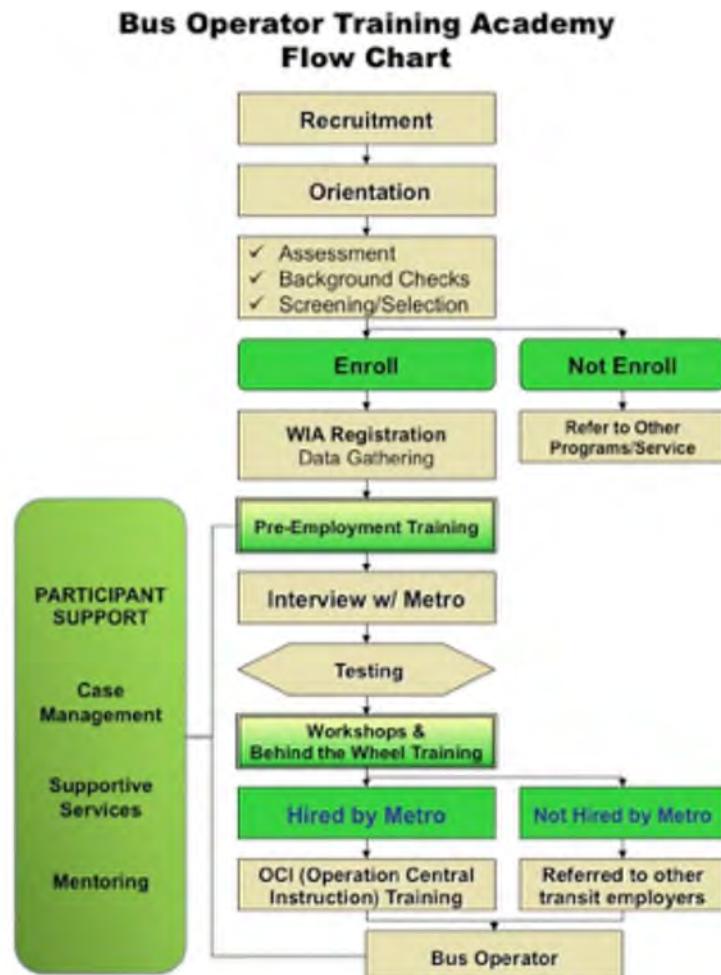


## Selection

In terms of eligibility, there were differences between TOSPA and BOTA. (Everyone selected for BOTA received the Work Readiness for Transportation course). To be eligible for BOTA, candidates had to be unemployed and meet eligibility requirements, including having the right to work, being enrolled for selective service and over age 21, and having a stable work history and a good driving record (no more than 2 points in the last two years and no DUIs); prior criminal record depended on the crime, how long ago, and the disposition. They also had to have childcare available and show financial sustainability to complete the course.

Generally, those with an interest attended an orientation to learn what the BOTA program entailed. If they were a good fit and met minimum eligibility requirements, they were asked to stay. At that time, staff conducted basic reading and math assessments to gauge if they were at a 9th- or 10th-grade level at minimum; if so, they went to a pre-screening interview with project staff using a standard interview protocol. Each applicant completed a questionnaire and checklist developed by the partners and was required to ride a bus and document what they observed. The applicant used this experience as the basis for writing an explanation of why they wanted to be a bus operator. This career exploration technique allowed them to job shadow a bus operator while providing additional information for the selection process.

Candidates were then rated on work history, test scores, interview scores, and commitment to the program and ranked top to bottom. For candidates that met the minimum standard for METRO, CCD created a package containing their program application, resume, and pre-screening results; this was sent to LACMTA Human Resources, which made sure the candidate had not already applied, was eligible to apply for the position, and was not a prior employee (or eligible to rehire). Anyone approved by MTA was then invited to a mandatory meeting at which CCD performed intake to collect required documents and enroll them officially into the project so they could begin training. CCD

**Figure 3-2**BOTA Program  
Flow Chart

representatives estimate that they screened approximately 100 candidates and referred 50 to LACMTA, which selected 40 to start training. All received the Work Readiness training to help with basic employability skills.

TOSPA was designed to train new supervisors and had a different selection process, as these participants were already employees at LACMTA. Candidates were hand-selected by LACMTA based on their current job, work history, education, and the determination that they could be strong candidates to promote to supervisory role with additional training. These promotions would then free up entry-level positions for BOTA to backfill.

### Orientation

For those attending the BOTA orientation before training, CCD made it clear that they were not guaranteed a job but were guaranteed an interview upon completion of the program. Orientation was a mandatory meeting at which they met personnel from LACMTA Human Resources and instructors from

the community colleges. This was to keep participants together as a cohort; orientation allowed them to meet each other, instructors, and potential employers. Participants received a binder containing the curriculum and agenda for the next two weeks and information on classes, times, rooms, and instructors and their contact information.

A LACMTA representative provided them with a job interview appointment date at the training orientation; the date was valid if they successfully graduated. Participants were also given a time for drug testing and information about the process from start until the (potential) first paycheck to encourage participants, reinforce that there was a real job opportunity, and inform them of what the timeline was to a first paycheck.

### Training Implementation

BOTA consisted of two weeks of classroom training followed by six–eight weekly workshops and behind-the-wheel experience. Training modules were designed to meet LACMTA's hiring standards; topics covered included customer service, critical thinking, pre-trip inspections, personal development, test taking, resume writing, interviewing, technology, and ADA regulations. Classes were held weekdays from 8:30 AM to 4:30 PM.

As part of the course, participants earned their Class B Permit to allow them to drive a bus. CCD and VC staff conducted the preparatory training for the Class B testing. (Instructors had previously received training from the DMV on how to prepare people for class B license.) The examiner from the DMV came to CCD on the second Thursday of the class and conducted all requisite DMV testing on site at CCD. After the vision test, CCD representatives paid the testing fee to DMV. Participants had to pass three separate sections (General Knowledge, Air Brakes, and Passengers) to obtain the permit, which were scored immediately.

The two weeks of the BOTA program were unpaid for the participants. Once they completed the program, LACMTA Human Resources personnel conducted an interview, background check, fingerprinting, drug testing, and a physical with successful candidates. Those selected began LACMTA's official Operation Central Instruction (OCI) training program that lasted six–eight weeks, during which they received a training wage of \$11.80 per hour. This process involved behind-the-wheel instruction with LACMTA senior staff.

The TOSPA program was designed to address LACMTA's concerns about the lack of successful internal candidates for supervisory positions. In general, LACMTA found that it had a number of people who potentially could move up to supervisory positions, but these promotion candidates lacked the writing and computer skills to successfully meet exam requirements. As such, the curriculum for TOSPA was designed around substantial training on business writing and the

use of computers and computer systems. The course curriculum was developed with input from LACMTA and was designed around the specific types of reports supervisors must generate on the job. In addition, they received general computer training on basic software required to be effective, such as MS Excel, at what CCD representatives characterized as an intermediate level.

The training was conducted over the span of approximately one month at LACMTA. Because participants were bus operators, the scheduling had to accommodate when participants would be available, which was usually 1–2 hours before or after a shift and varied by day during the course period. Instructors tailored the class to meet the needs of the individuals, with one cohort focused more intensely on writing and another more intensely on computer and software skills based on the needs of the students. The course ended when participants completed the curriculum and instructors determined that they had the necessary skills to successfully pass the LACMTA supervisory exam. Some participants might complete the material, whereas others might continue their training depending on their specific needs.

As noted, the Transportation Work Readiness program was provided to all who entered BOTA to ensure they were prepared for an interview, and each participant who began the course was required to complete it. The course was integrated into BOTA, often consuming the last hour of the day's classes, during which time a work readiness issue would be discussed. CCD adjusted the program slightly to meet employer needs, but most topics were standard, such as critical thinking and working with difficult customers. There were also topics specific to a transit audience, such as American With Disabilities Act (ADA) (securing wheelchairs) and dealing with unattended minors, for example.

### Participant Support

Support was provided during the training and for up to one year after the start of employment and included career counseling, career coaching, case management, expungement of some criminal records, financial assistance such as transportation assistance, DMV fees, cost of drug testing, emergency expenses, and follow-up services. All participants were also given a card allowing them access to LACMTA's transit system to provide free transportation to ensure they could attend classes. Each participant was assigned to a case manager with whom they could be in contact daily. Case managers checked in before or after classes daily for easy access and helped with finding programs to assist with childcare, food shortage, work clothes, parking, and so on. Depending on the income level of the participant, the case manager would try to find providers with low or no-cost programs to which participants could be referred.

Participants in the program also received mentoring. CCD has a partnership with the University of Southern California School of Social Work, and Master of

Social Work interns were on site at CCD and available to provide life coaching, mentoring, counseling, and other social services free of charge. This process was private; coaches would go to classrooms to check in with their clients. For veterans, CCD partnered with veteran service organizations to provide peer-to-peer counseling and co-case managers. In addition, LACMTA had prior BOTA graduates who were successful operators donate their time to inform the classes about what to expect, reduce anxiety, and answer questions.

For TOPSA participants, some mentors were LACMTA employees, and some were LAVC staff, and professionals from many backgrounds were brought in to assist. As employed persons, the mentors might need to arrange to meet on a weekend off-site or the LACMTA lobby. Generally, higher-level staff at LACMTA received mentor training; all were volunteers.

## Outcomes

The primary expected outcomes for the LACMTA METRO project were the implementation of BOTA, an existing program, and the development and implementation of TOSPA to prepare potential participants to become supervisors. In total, as shown in Table 3-1, CCD and its partners exceeded anticipated numbers for those who would receive training and gain employment. In total, the project trained 236 individuals, 157% of the goal; most of the overrun was in the BOTA program, which enrolled 159 rather than 75 people.

**Table 3-1**

*CCD Project Outcomes – Goal and Actual*

Goal Description	Goal	Achieved
Total enrollment	150	305 (203%)
BOTA	75	228 (304%)
TOSPA	75	78 (103%)
BOTA program completion	95%	98% (+3%)
TOSPA program completion	85%	100% (+15%)
TOPSA supervisor exam	75%	70% (-5%)
BOTA job placement	50	199 (398%)
Certificates earned	135	233 (172%)

The program placed 199 of the 228 BOTA participants at LACMTA or another employer. Of the reported 78 participants who participated in TOPSA, 70% went on to become supervisors, very close to the goal of 75% taking the exam. (Because the TWR program ended up being incorporated within BOTA, completion and placement figures were not calculated independent of BOTA's.)

CCD noted that the program also met its demographic target. All 228 individuals were deemed low-income according to Los Angeles County poverty guidelines. Overall program enrollment was 58% male and 42% female, with 16% veteran, 41% African American, 27% Hispanic, 18% Caucasian, 9% Other, and 5% Asian.

## Budget and Matching Funds

The ITWDP provided CCD with \$331,313 in Federal funds (45% of the total), roughly \$100,000 short of the initial request. CCD reduced the number to be served and removed one assistant from staffing. Otherwise, expenditures were in line with initial expectations for outreach, instruction, and case management. CCD noted that partners co-case-manage and provide support services. It also leveraged support services from other programs. LACMTA donated \$159,000 to the effort, which the project manager estimated put the matching at roughly \$400,000. The project was closed in September 2018.

## Impact

The CCD representative pointed to three primary impacts of the project. First, it helped the community by putting unemployed people in disadvantaged neighborhoods back to work. Second, it met LACMTA's (and other partners') hiring needs for bus operators, an ongoing recruitment challenge, as passing LACMTA's OCI training immediately following employment was a considerable problem leading to stress and considerable overtime pay. Third, candidates for supervisory positions were developed who had the computer and writing skills to pass the exam. An added impact was working with additional partners in the community and establishing new relationships that can result in collaboration on future efforts.

## Lessons Learned and Recommendations

CCD project personnel provided lessons learned and advice for transit agencies considering developing their own METRO project:

- The model of having an employer up front is critical. CCD found that it was vital to work with the employer to understand the employer's need, existing curriculum, skill gaps, and how the gaps can be filled. CCD can now replicate this approach in more than one industry with success.
- Bus operators work virtually around the clock; therefore, any program aimed at already-working operators such as TOSPA must have maximal flexibility. Without that, the program cannot work.
- It is useful to have geared the TOSPA program around actual reports and work products that the operator supervisors are expected to produce. This helped target the level of training needed for each person.
- A well-designed sector partnership among a transit agency, a community college, and a community-based organization can decrease recruitment costs, increase retention during on-the-job training, and increase the diversity of bus operators. In turn, a successful program similar to BOTA can assist low-income job seekers in gaining the skills and knowledge needed to be employed by a transit agency.

- High-level champions such as executive leaders are extremely important for program continuity and resolving issues as they arise.
- The partners should have a shared vision for what program success looks like, complementary missions, mutual respect, and flexibility.
- Program improvement is possible when the partners are committed to continuous improvement and are able to objectively evaluate program data.
- A thorough orientation and good screening process are key to selecting participants who have the best potential for hire.
- Low-income, unemployed job seekers require significant supports, including emotional support and encouragement.
- Although multiple methods of recruitment are important, the single best source of recruitment was the WorkSource/American Job Centers.
- The location of training is important. Training at the employer's site provided significant benefits to participants and to garnering overall support for the initiative.
- A job interview guarantee is a great motivating factor, as is the high probability of employment upon graduation.

## Conclusion and Further Investment Recommendation

The METRO project exceeded its primary goals. CCD and its partners replicated the previously-successful BOTA program that addressed the employer needs of improving the percentage of candidates that could pass the OCI. The program created a pipeline of candidates from the community in need of employment into preparation for and employment with LACMTA and helped place 120 participants. The provision of wrap-around support and mentoring led to an impressive record of completion of BOTA of roughly 95%.

METRO also instituted an additional flexible project in TOSPA to help prepare potential supervisors to pass the requisite exam. This project held promise and was innovative in the flexible and open-ended approach to training bus operators with difficult schedules. However, because data were not available on the number who took the exam and passed, it is unclear how successful TOSPA was at meeting its goal.

CCD indicated that BOTA will continue. It is always looking for funding opportunities but indicated it will be funded, as it is an important program and bus operators are constantly in demand. TOSPA has not been repeated since the end of the grant, but it is under consideration.

BOTA is clearly a high-impact program for LACMTA, which is why it continues to support it. It is clearly worth investment for transit agencies with the right

alignment of partners and an entry-level candidate pool problem. BOTA has had 10+ years of development and refinement.

The partnership alignment of an employer, trainer/educator, and workforce development organization (e.g., LACMTA, LAVC, CCD) continues to make for a powerful combination capable of meeting employer workforce needs. It appears that BOTA is a replicable program, which could be tailored for any number of specific entry-level positions.

### Success Stories

**Alisa**, a single mother of eight, came to Los Angeles from Detroit in 2007. She found it difficult to find a stable job without a high school diploma. She lived in hotels, paying with public assistance vouchers. She eventually obtained irregular, part-time, on-call work, earning \$10 per hour with no benefits and requiring her to commute up to 60 miles each way for a two-hour assignment. It was impossible for her to support herself and her children with this job and limited income.

Alisa desperately wanted a job that would provide security for her family. She applied for a job at Metro and passed the interview but was unable to pass the initial Metro Training. Metro referred her to BOTA, where she passed all her classes and finally succeeded in passing the OCI.

Alisa found that the program helped her gain study and test-taking skills in addition to the occupational competencies, all critical to her attaining employment. Learning interviewing techniques gave her a renewed sense of confidence, and the time management skills helped her prioritize her studies and balance training attendance with raising eight children.

For the first time in her life, Alisa was able to break out of her shell, walk to the front of the classroom, and present information to a room full of students. The class gave her the opportunity to meet others in the same situation, which provided her with the motivation and support to make it through the program. It also gave her confidence and the vision to succeed. She is now a Metro bus operator earning \$14.59 per hour with full benefits. But her success does not end here. She obtained a GED and is now pursuing an AA degree, further demonstrating the lifelong learning that BOTA inspires in its participants.

*\*Note: Names have been changed for privacy reasons.*

# Santa Clara Valley Transportation Authority (VTA) – Discover Opportunities in Transit! (Do It!)

## Background and Problem Addressed

Santa Clara County, California, is situated in the southern part of the San Francisco Bay Area. With a population of roughly 1.8 million, it is northern California's largest county and contains the nation's 10th largest city, San Jose. The Santa Clara Valley Transportation Authority (VTA) is an independent special district that provides bus, light rail, paratransit, and congestion management services in the cities and unincorporated areas of Santa Clara County. Its bus service area is approximately 1,300 square miles, serviced by 70 bus routes, 3,805 bus stops, and an active bus fleet of 432 buses; its light rail track extends 42.2 miles. In 1994, VTA became the official Congestion Management Agency in Santa Clara County and, as such, is responsible for county-wide transportation planning, including congestion management; design and construction of specific highway, pedestrian, and bicycle improvement projects; and promotion of transit-oriented development (TOD) managing the county's blueprint to reduce congestion and improve air quality. In addition, VTA is a funding partner of Caltrain, Capital Corridor, and the Altamont Corridor Express, the regional heavy rail public transportation providers in the Bay Area.

VTA faced two problems it sought to address with this project. First, it was challenging for the agency to find qualified local candidates for certain skilled, technical, and well-compensated positions such as those in the Transportation Planner area, and very few of those candidates applying were from the targeted groups. Not finding local candidates for the Transportation Planner career path is a persistent problem that starts at entry level and continues through the entire career track.

Second, members of targeted groups had challenges finding and following the educational and career paths that lead to skilled, technical, and well-compensated positions in transit. Although one of California's wealthiest counties, Santa Clara County had been experiencing the hollowing out of its middle class in the past 20 years, with growing income disparities. Almost half of its households had an annual income of \$99,000 or more in 2013, yet almost 30% earned less than \$50,000. And although graduation rates for African-American and

Hispanic students in Santa Clara County had increased to historic highs, they were graduating at a lower rate than other groups, and those who did graduate often did not know that transit careers required professionals (e.g., engineers, accountants, planners, web developers, etc.).

## Proposed Workforce Solution

To address these issues, VTA created the Discover Opportunities in Transit (Do It!) project to prepare and direct underserved, underemployed, and minority groups into the Transportation Planner career path. VTA planned to work with partners to develop training materials geared to enhance the minimum qualifications of targeted student groups to prepare them for entry-level positions in this field. The training program aimed to assist and enable individuals who may not be aware of or have sufficient training to enter this professional, high-earning career in the field of transportation. VTA intended to provide five paid internship positions (one year-long position and four six-month positions) and seek intern placements in other agencies to provide the practical application of the skills learned and further reinforce the classroom training. The goal was for successful participants to have an opportunity to secure skilled and well-paid professional positions in the transit industry that would help them climb into the middle class and improve their quality of life.

## Partnerships

VTA, the lead applicant for the proposal, is an independent special district that provides sustainable, accessible, community-focused transportation options that are innovative and environmentally-responsible and that promote the vitality of the region. It provides bus, light rail, and paratransit services and participates as a funding partner in regional rail service. As the County's congestion management agency, it is responsible for county-wide transportation planning, including congestion management; design and construction of specific highway, pedestrian, and bicycle improvement projects; and promotion of TOD. VTA partnered with the local chapter of the ATU and Balance Point Corporation to provide specialized training for VTA employees wishing to become or advance careers as diesel bus and light rail mechanics and line workers. VTA was the fiscal agent and provided subject matter expertise and the paid internships for this project.

The Mineta Transportation Institute (MTI) is an organized research and training unit in partnership with the Lucas College and Graduate School of Business at San José State University (SJSU), founded in 1991. MTI increases mobility for all by improving the safety, efficiency, accessibility, and convenience of the US transportation system. Through research, education, workforce development, and technology transfer, it helps create a connected world. MTI performed formative evaluations of training strategies and research design, monitored project implementation, and conducted final analysis and reporting.

The San Jose Job Corps is funded by the US Department of Labor (DOL) and offers no-cost education and vocational training to more than 60,000 students ages 16–24. Its mission is to offer hands-on training in more than 100 career technical areas and meet the requirements of today's careers. Students in the program qualify as low-income, and 80% are minorities and 50% are female. San Jose Job Corps staff assisted in developing and delivering a training and educational curriculum that provided participating students with the skills to enter the transportation planning field.

Independence High School (IHS) is a public high school operated by the East Side Union High School District in the Berryessa district of Santa Clara County. It was selected as a pilot site for its size and diverse student body. IHS is a STEM magnet school with an academic focus on integrating STEM subjects into every aspect of student education, foundation skills that are highly desirable in the transportation planning field. It co-developed and offered an extra-curricular program that introduced students to basic readiness skills for transportation planning and instilled an interest in pursuing a career in the transportation field.

Foothill College is a Bay Area community college located in Los Altos Hills. It offers a GIS certificate program with college credit toward an advanced education in the California State University and University of California systems. Foothill GIS staff partnered with VTA to identify minimum entry-level skills and assisted in the development of introductory courses for San Jose Job Corps and IHS students, supporting the skills and competencies to prepare them for future careers in the transportation planning field.

VTA selected these partners because of their diverse populations served and existing programs that may prepare students for a transportation planning work experience, such as the IHS STEM program. VTA had some prior working relationship with Job Corps but not with the other partners. There were some minor issues getting the requisite memoranda in place, but all partners eventually signed on. A change in the VTA team took place part way through as well. VTA representatives noted that they were impressed by the passion and commitment of the partners and found that the partners knew the population better than VTA and often pushed VTA for program elements thought to be un-realistic at first by VTA but actually enhanced the program.

Partner communication took place through regular meetings at VTA, particularly at the beginning as roles were clarified. Due to some geographic distance, there were some one-on-one meetings; otherwise, communication was by telephone and e-mail.

## Project Implementation

### Project Development

Initially, VTA envisioned that Foothill College would help with curriculum development, as it was the most experienced as an educational institution; however, it was determined that this process was not feasible, as the curriculum change process that community colleges must follow was very stringent and could be a very lengthy process; it was faster and simpler to add a component from VTA onto existing curricula as an “enhancement” that did not require the entire curriculum change process. Therefore, VTA developed a curriculum that enhanced the relevant transit-related programs at Job Corps, Foothill College, and IHS.

VTA hired a person to develop the curriculum, who contacted each partner to understand their current programs. The program at VTA was built around the use of internal mentors proficient in areas of planning (environmental, engineering, surveying, land use, etc.) and who acted as subject matter experts for the areas in which they worked. The mentors provided their own curriculum suggestions, presentation of technology they used, way-finding technology for GIS, software used in engineering, and basic YouTube videos to provide background in the field of environmental planning. Presentations contained highlighted topics related to planning, shown specifically to students to help them understand what the planning field entailed.

MTI conducted a preliminary survey of the student body at each participating school that examined demographics, knowledge of the transportation field, and interest in transportation and prepared a report for VTA.

### Workshops and Intern Recruitment

VTA’s project staff and planning mentors visited the participating schools to conduct outreach and workshops, and VTA brought participants to its River Oaks Campus. There were three presentations at IHS, three workshops at VTA, two presentations at Job Corps that involved a workshop and handouts of recruitment materials, and one presentation to Foothill College GIS students. Mentors gave presentations about their areas of expertise, and each presentation or workshop lasted for two-three hours. The presentations were designed to make students aware of the foundations of transit planning; for example, one workshop included a hands-on activity in which students considered how to design their own bus route considering environmental and other factors. The presentations were more advanced for community college students in terms of simulations and technology due to their understanding of software. The high school presentations were an overview of planning areas to strike interest.

The intern recruitment process began with an intern hired from IHS in November 2016 for a 12-month internship position. This person withdrew after

one day, and a new recruitment process took place, resulting in placement of an intern that had to shorten the program to begin college. (This recruitment took place prior to the interviewees taking over the program, and they knew few details about the recruitment or internship.)

The second recruitment for four additional, 4-6 month interns was viewed as an open, competitive process among students from Job Corps, Foothill, and IHS; VTA's initial goal was to have at least one participant from each institution. The VTA team developed a set of interview questions and criteria used to assess each candidate, and the Do It! team conducted panel interviews in which program mentors sat in on the interviews. Interviews were conducted on-site for high school students, and Job Corp and community college students came to VTA to interview. VTA received roughly 25 applications from the three schools.

### Mentor Recruitment

The project representative indicated that VTA had a long history of recruiting from internships—four program mentors had started as VTA interns. Many VTA employees had an interest in making sure participants got an educational experience when they participated in an internship.

Recruitment of mentors was voluntary. Planning employees were informed about the program and its goals and asked to volunteer if interested. The mentors had their own personal experience regarding what could have been improved in their own internship experience, which they added to their own work program. Mentors prepared for the interns, monitored them to be sure they stayed on task, and ensured they knew how to use software such as MS Word and Outlook. Interns often were comfortable with software and the GIS system but were not familiar with business processes and areas such as work ethics or dress code. Mentors explained these things to the interns once they were at work.

VTA intended to have interns participate as much as possible; however, transportation and school hours restricted availability for school students. As a compromise, high school interns began a schedule of one short day every two weeks, which meant they would be involved in the internship only three-four hours every other week. This provided a challenge for their participation and what could be accomplished. The interns from Job Corps and Foothill were expected to participate for four-six months, as they had more flexibility to coordinate their educational responsibilities into three days per week and could come to VTA two full days per week. The internship was capped at 29 hours per week, and several were able to reach that limit. Summer was open to everyone as an intern, and interns earned \$15 per hour.

Each intern paired up with a mentor, representing subject matter experts on planning within the agency. VTA chose to use a mentoring approach (as opposed

to supervisors) to avoid focusing on a reporting structure. They found that this improved the learning curve, as interns were free to ask more questions. Interns also helped each other; for example, Job Corps students had practical knowledge of systems they could share, which was enriching to others.

Each mentor came from a different area of planning, such as highways, environment, or GIS, with each area slightly different. Each intern was assigned a project on which they worked with their mentors. The culmination of the internship was a larger collaborative project on which the interns worked together for most of the internship—the redesign of a corridor of San Jose. Interns worked on the plan for three months and presented it to every level of VTA, including executives. They also mentored each other among different levels of academics. The VTA General Manager recommended that the interns present their plan to the VTA Board of Directors, which included a representative from the area of the corridor plan.

## Outcomes

VTA and the partners in Do It! identified a number of metrics that would be tracked for the project, as summarized in Table 4-1. VTA's proposal for the project specified only two outcome goals—to create a curriculum and to employ five interns. Other measures were tracked, but without specific outcome goals.

**Table 4-1**

VTA Do It! Project  
Outcomes –  
Goal and Actual

Goal Description	Goal	Achieved
Appropriate curricula created	1	1 (100%)
Number reached by outreach	-	200
Number of intern applicants	-	25
Applicants enrolling in program (among targeted groups)	5	5 (100%)
Participants completing training	5	5 (100%)
Participants applying for positions in transportation planning and related positions	-	3
Participants hired by VTA/other agencies	-	3
Creation of corridor plan	-	1
New VTA positions created	-	1

The project successfully created a modified curriculum. The proposed plan was to have an educational partner, Foothill College, develop the curriculum and have more on-site education as part of the program. However, when it became evident that was not realistic, VTA switched to developing “enhancements” to existing curricula that were adapted for different levels of students. These included presentations and workshops.

After initial delays and project staff turnover, VTA successfully recruited interns, with a reported 25 applicants for four openings. Although the high school interns were limited in the time they could participate, the older interns worked

a substantial number of hours. All interns reportedly stayed long enough to complete a major group project.

Following the internship, two participants enrolled in college, one transitioned from Do It! to a traditional college internship in Sustainability, another took a contractor position with Express Lanes as a technician, and one was hired by a private GIS company in the area. Another outcome of the project was that following the final presentation, VTA executives decided to create a Transportation Planning Aide position. Former interns were informed of this and asked to consider applying.

## Budget and Matching Funds

The ITWDP provided \$200,000 (40%) in project funds, which were supplemented with approximately \$300,000 in matching and in-kind funds, including \$170,000 in Measure B Local Funds and \$130,000 in qualifying in-kind services. Project representatives noted no particular budget difficulties, but they did find that they needed local investment due to the restricted uses allowed for Federal funds. The project concluded in September 2018.

## Impact

The VTA representative identified a few key areas of impact of the Do It! project. One was that it enhanced VTA's ability to provide internships; VTA continued to change how it sought mentors and recruited interns, how it trained mentors, etc., and created a unit at VTA for prepping mentors to make sure interns have a good experience.

The interns participating in the project were able to present at every level of the organization, including executives and the VTA Board. This was due to the quality of the project and illustrated the growth what was possible for interns and was key in getting the Transportation Planning Aide funded. The success of the project and how interns presented themselves were instrumental in getting the position funded.

Finally, the project streamlined VTA's process for recruitment, goal setting, and selecting interns that meet expectations. It now has materials, marketing, and a dedicated area on the VTA website.

VTA has a continuing college internship program. For any department with a need and budget to support it, VTA will seek interns; the VTA representative noted that the relationship with the institutions will continue. Job Corps indicated that it wanted to improve its program to meet VTA's needs. High school students enjoyed their time but, as minors, were not yet at the stage of deciding on a career.

**Figure 4-1**

VTA Internship  
Website

The screenshot shows the VTA Internship Website's "Employment" page. The header includes the VTA logo and navigation links for Getting Around, News & Media, Projects & Programs, BART Silicon Valley, and About Us. The left sidebar has a dropdown menu under "Employment" with options like Applicant Login, Job Openings, Promotional Openings, Internships, Employment FAQ's, Benefits, Job Specifications, Job Interest Card, Procurement, Demonstration Projects, Financial & Investor Info, Budget, Disclosures, Misc., and Inside VTA. The main content area shows a breadcrumb trail: Home > About Us > Employment > We love interns!. Below this is a section titled "We love interns!" featuring a video thumbnail with the text "VTA Provides Solutions that Move You". A video player interface is overlaid on the thumbnail. Below the video, a paragraph of text describes VTA's commitment to enriching public sector work experience through internships.

**We love interns!**

VTA Provides Solutions that Move You

One way VTA is committed to enriching the public sector work experience for young professionals is through its internship programs. In addition to partnering directly with local schools and agencies, VTA also sponsors internships with grant funding. Numerous former student interns have even become full time employees at VTA. Take a look below to learn more about our current programs.

## Lessons Learned and Recommendations

Key lessons learned and advice to those wishing to implement a project similar to that put forward by VTA include the following:

- When working with educational institutions such as community colleges, do not assume that curricula can be changed quickly to adapt to program needs. There likely is a considerable process involved, which made it prohibitive for the Do It! timeline.
- Consider the limitations of working with high school students and plan accordingly; their schedules are more fixed during the school year than those of college students, and transportation is a greater potential challenge for them.
- VTA was ambitious in having three distinct partners for only five internship positions. A more-narrow focus would have made things run more smoothly.
- A good internship must have gains for both sides. The agency can benefit from the labor, but the interns want to have a meaningful, educational experience.
- By giving the interns an actual group project on which to work (corridor planning) and by allowing them to present this work at various levels including VTA executives and Board members, they earned enough credibility to merit the addition of a Transportation Planning Aide position. This would not have happened if they were given less formidable work.

- Former interns make good candidates to work as mentors. Their experience gives them something from which to draw, as well as an understanding of the potential value of the experience.
- Establishing an organizational culture that values internships helps both sides; many at VTA came to VTA through internships. This helped to frame the interns as having value and, because they were not supervisors, there was less focus on the reporting structure. This freed the interns to ask questions that they might not otherwise have felt comfortable asking and seemed to shorten the learning curve.

## Conclusion and Further Investment Recommendation

Although the Do It! project at VTA did not establish many specific goals, it implemented a valuable internship program for an area in which interns were needed. It was impressive that the interns were able to create a corridor plan sufficient to present to VTA executives and Board members. That the agency has decided to fund a Transportation Planning Aide position indicates that the long-term goal of creating a pipeline of potential planners will be successful. Moreover, some participants gained work in transit or transportation, although not necessarily at VTA.

The caveat for future investment in such projects is scalability and impact. Between FTA and local investment, the project received \$500,000, or \$100,000 per intern. Some of this was project set-up costs, reaching 200 students with workshops during recruitment, funding staff time, paying for intern salaries, etc. However, for an agency that has an ongoing culture using and valuing interns, this seemed like a high price for such limited impact. Two high school student interns may end up in transit positions; the other three are not working at VTA. It is unclear if the costs would have changed substantially (other than intern salary) if a larger agency were to recruit 20 interns versus just five; if so, that could change the calculations.

As it currently stands, this project should be replicated only for positions with pre-existing high costs per recruit, such that the internship can create a real pathway into a position. In that circumstance, the project may be able to reduce the high cost and create a small pipeline through the internship. Otherwise, for lower-cost positions, the cost per recruit is too high.

SECTION  
**5**

## Bay Area Rapid Transit District – Transit Career Ladders Training (TCLT)

### Background and Problem Addressed

Bay Area Rapid Transit (BART) is a rapid transit public transportation system serving the San Francisco Bay Area in California, with its heavy rail elevated and subway system connecting San Francisco and Oakland with urban and suburban areas in Alameda, Contra Costa, and San Mateo counties. BART serves 48 stations along six routes on 112 miles of rapid transit lines. With an average of 423,000 weekday passengers and 124.2 million annual passengers in FY 2017, BART is the fifth-busiest heavy rail rapid transit system in the US. It is operated by the San Francisco Bay Area Rapid Transit District, which was formed in 1957. As of 2018, it was being expanded to San Jose with the Silicon Valley BART extensions.

The Transit Career Ladders Training (TCLT) project was 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. Transit agencies are facing issues of retirement, lack of trained personnel, and an increase in technical requirements as the industry seeks to enhance efficiencies, modernize, and accommodate a growing population of riders.

Over the next 30 years, BART is engaged in system extensions that will add 40+ miles of new passenger rail to its existing system to support new rail cars. In addition, there is a district-wide effort toward control center modernization to support 1,000 new rail cars. Sustaining the agency through this growth while meeting its future needs requires a highly-skilled workforce.

For this project, the agency focused on the technical trades of Electrical and Electronic specialization for entry-level maintenance worker classifications, with annual starting salaries of \$59,475–\$77,745. Three key workforce recruitment issues were faced by BART in these classifications—high vacancy rates, gaps in technical knowledge, and recognized limitations on promotions of current workers into the Electronic and Electrical areas—for example, vacancies at or above 10%, a 91–96% selection test failure rate, and near zero internal promotion.

## Proposed Workforce Solution

TCLT was designed to allow for a two-tiered pathway of opportunity to transit careers. The first pathway would allow technical training opportunities for employees in non-technical classifications and individuals from the community meeting the eligibility criteria. This process would recruit incumbents seeking to change to the Electronic and Electrical areas and those in the community that could be candidates for training.

The second pathway included temporary employment in backfilling non-technical positions as internal BART employees participate in the project. As employees leave their current positions to attend the training, these positions can be filled on at least a temporary basis while the incumbents are in training. This backfilling provides for potential entry experience and exposure to BART jobs.

In response to the needs identified, the following elements were included in the design of the project:

- Expanded community-based outreach
- Academics bridge class
- Technical training program
- Proposed transit career pathway
- On-the-job training programs

## Partnerships

BART was the lead applicant and served as the fiscal agent, coordinator, subject matter expert, and employer for the project.

The Alameda County WIB, Contra Costa Workforce Development Board, Richmond WIB, Oakland WIB, and San Mateo WIB together oversee a network of locations that provide services to adults, dislocated workers, and youths (up to age 21). WIBs work to build a better workforce by linking employers, job seekers, and youths to education, training, and employment-related programs and services. The WIBs and their affiliated One-Stop Career Centers and youth providers assisted with outreach and recruitment, screening and assessments for the training program and the temporary BART positions, and case management to Workforce Investment and Opportunity Act (WIOA) enrolled participants in the program. They also provided ongoing support for WIOA candidates, as needed, for additional support through co-enrollment.

Bay Area Community Colleges served as the educational institution network. Colleges committed to join this effort initially included Diablo Valley Community College, Los Medanos Community College, Chabot Community College, San Mateo Community College, and potentially other community colleges that met

the program's criteria. Community college Electrical and Electronic training programs presented an opportunity for participants to gain a competitive edge as they entered the transit workforce market. The community colleges provided three full semesters of technical training for classes. The contributing activities and areas of responsibilities included complete coordination of placement testing, academic bridge programs, and technical training programs through the help of College Site Coordinators.

There was an existing relationship between BART and at least some of the educational partners, but not in formalized arrangements such as this project. BART promoted job opportunities and participated in networking with career planning at the colleges. It coordinated with a Regional Director for the Bay Area Community Colleges, who assisted in reaching out to colleges and identifying those with existing programs in place for electrical training. The Director of the Oakland WIB helped BART reach out to other workforce boards.

The BART representative reported no significant problems in forming the partnership. It began by reviewing the curricula offered by the colleges to see how they aligned with the needs identified by the BART hiring managers. BART also looked at colleges with the capacity to provide the curricula within a tight timeframe—the short timeline of the FTA funding left only three semesters, so BART had to find colleges that could offer the coursework in a short period of time. Some colleges had to change their course sequence, and all had to create cohort programs for BART to guarantee students had admission and enrollment for all three semesters.

The team held in-person group meetings in the early phases of the project. Key stakeholders and leadership were involved, including Dean- and Director-level staff from the community colleges. As the project moved forward and dealt with faculty, the team shifted to conference calls. Typically, team meetings were held quarterly once the program was launched, with email and phone calls as needed.

## Project Implementation

### Recruiting and Selection

To be eligible to participate, candidates had to be age 18 or older and a resident of California (to attend community colleges). Other target characteristics for recruiting were disadvantaged persons who received public assistance funds or met lower income-level guidelines, veterans or spouses of a veteran, people residing in identified low-income or high unemployment areas, females, and minorities.

The TCLT project enhanced recruitment efforts for new transit entrants, including:

- Targeted outreach with the support of the WIBs, One Stop Career Centers, community colleges, and community-based organizations
- Collaboration with local community colleges on training programs and career readiness
- New pathways into transit careers

Marketing materials and tools created to attract applicants included a marketing flyer/poster, informational brochure, how-to-apply guide, and a frequently-asked-questions sheet. Outreach locations covered by TCLT staff included:

- One Stop Career Locations/ East Bay Works
- Community colleges
- High schools
- EDD locations
- Veterans Administration offices
- Youth development organizations
- BART stations in identified low-income areas

Outreach also included partnerships with colleges, WIBs, and Workforce Development Consortiums (WDC) to create information sessions, attendance at job fairs, and traditional advertising posting on BART's websites and other agency websites. Internally, BART promoted and advertised the program to employees in non-technical classifications. The posting period for the internal applicants was July 2016.

## Application

A special web page was created on BART's website, [www.bart.gov/training](http://www.bart.gov/training), which included a brief program description, images of maintenance workers, links to marketing materials, and a list of participating colleges and local WIBs for further information. To streamline the application process, BART designed a central online application form that was accessed from the BART general website. The goal of the application was for quick access and completion using a simplified form with focused questions that were easy to answer. It was also designed to obtain information based on FTA target groups. The simplified application collected information from individuals, including the preference of which college was most convenient for them to attend.

## Screening and Selection

The screening and selection process was the same for internal BART employees and external candidates. Each college assigned or hired a Program Coordinator who helped and supported students through the program. Coordinators processed candidates through candidate intake steps, which included initial

screening, information sessions, identification of transit entrants, and placement testing. For temporary help hired, verification of qualifications and US Department of Justice (DOJ) background and pre-employment screening occurred. The coordinators worked with colleges and WIB/WDC agencies to screen and select individuals to incorporate into basic skills training or to move directly to the technical training phase of the program. This area encompassed basic skills testing and identified technical criteria in the areas of electricity, electronics, and/or mechanical, which were necessary for success in the technical training programs.

Those who applied and met the basic criteria were invited to test at one of the participating colleges. BART collaborated with the colleges to agree to a minimal level of math proficiency required to be successful in their Electrical and Electronics programs and came to a consensus for math of approximately an 11th-grade level. Together, the colleges tested more than 1,400 applicants. Math scores were the first criteria; if a candidate's scores were marginal, BART tried to keep them in the list of candidates for consideration.

After the initial screening and math testing, the third level of selection involved consideration for those who had marginal scores within the categories of veteran, veteran spouse, income, and gender. Points were assigned for each category, participants were ranked, and selection among marginal candidates went to those with the most points.

### Academic Bridge Programs

The academic bridge portion of the program intended to bring math and English competencies up to the required levels, if necessary, to enable program success. All participants ultimately participated in the bridge programs.

The bridge programs included basic math and English support along with academic counseling and introductory instruction in Basic Math, Basic English, Introduction to Electricity, Electronic and Mechanical Technical Training, and Study Tips in preparation for the next steps of technical skills training courses. Each college had 25 slots for bridge students. BART had a ranking list of candidates, and the top candidates engaged in the bridge program for up to six weeks. BART allowed the colleges the flexibility to design the bridge courses based on the profile of students. Some colleges used an on-line format, and some held in-person classes. If a student dropped out, the colleges called people from a wait-list to fill the slot.

In addition to academics, students were provided with orientation materials that contained more information about the program. Students needed to successfully complete the bridge training (including attendance, participation, and a math test at the end) to continue in the program. The colleges each used different testing sources but coordinated to ensure the reassessed passing level would be uniform across the colleges for consistency. Where possible, the TCLT team used existing

systems and formats the colleges already had in place, but they also created uniformity where possible.

### Technical Training

The longest phase of the program was Technical Training, which provided orientation, registration, enrollment, and completion of the Electronic or Electrical training programs hosted by the local community colleges. The Technical Training program was built as a result of BART hiring managers in the three technical class fields, carefully examining the curricula of each college participating and considering the related classes offered. Each college had separate curricula; BART reviewed each and tried to ensure there was consistency across the core classes. Some were more focused on electrical topics, some on electronics. There were three basic positions for which students prepared—Electrician, Transit Vehicle Electronic Technician (TVET), and Transit Communication Electronic Technician.

The TCLT page on the BART website linked to each participating college. Candidates interested in a particular college viewed a class listing, the number of hours required per week, and other information before they selected which college to attend. Students selected their college preference by attending testing at that school. At orientation, participants learned about the three semesters of the program in even more detail. Examples of classes from the various curricula included:

- Basic Electricity
- Introduction to Electronics Fundamentals
- Technical Math for Electricians
- Motors and Drives
- OSHA 30
- Wireless Communications Systems
- Programmable Logic Control Systems
- PC and Robotics Systems Components
- Electronic Circuit Analysis
- Power Systems

### Student Support

BART encouraged the colleges to provide support services to students. The coordinators at each college met regularly with students to assess progress and provide support. Coordinators helped facilitate office hours to get assistance for students who needed it. If a college had a formal student retention program, they could use it; if not, *ad hoc* efforts were made. Some support included study groups, tutoring, counseling, faculty office hours, student retention programs,

college success counseling, and WIOA Services. Often, more than one of these approaches was used.

## Outcomes

BART had three primary goals for the project: 1) to demonstrate national or regional applicability/community-based outreach, 2) to deliver the Academics Bridge Class/Technical Training Program, and 3) to provide expanded opportunity for non-technical careers. Each goal had a number of specific deliverables or objectives, as shown in Table 5-1.

**Table 5-1**

*BART TCLT Outcomes  
– Goal and Actual*

Goal Description	Goal	Achieved
Model application	1	1 (100%)
Regional outreach	-	46 organizations
Outreach to potential candidates	200	1,610 (805%)
Basic Math and English training	40	135 (337%)
Technical Training (3 semesters)	25 units	25 units (100%)
Technical Training enrollment	65	114 (175%)
Orientation sessions	-	Conducted
Part-time paid positions (backfill)	15-20	3 (20%)
Electrical/Electronics college certificates	-	73
BART placements from training*	-	26

\*Based on August 2018 supplement to final report

BART created an application and further streamlined the application process online, such that it worked for multiple classifications and led participants to multiple educational institutions. It reached out to at least 46 organizations as part of its regional outreach strategy and was successful in reaching many potential candidates. Although it targeted reaching only 200–300 people, it received more than 1,600 applications, with 1,500 invited by BART to test at community colleges and 450 taking the opportunity to test at the community colleges. Although BART did not set specific internal and external recruitment targets, it is notable that the vast majority of candidates came not from BART internal recruiting, but from external recruiting in the community.

Of those completing the bridge training and enrolling in the technical training, there were 114 participants, 16 of whom came from internal BART recruitment and 98 from external recruitment efforts. Of those, 77 completed the course, earning 73 certificates. As of August 2018, BART had placed 26 into employment (22 full-time). However, the expected backfilling of positions did not materialize at the rate BART expected, with just three positions backfilled.

A representative from BART noted that those hired as Train Control Electronic Technicians would need on-the-job training to be fully qualified, and until then

they would not meet stated minimum requirements for those positions. At the time of the interview for this report, BART was negotiating with the unions on this issue to arrive at a resolution.

## Budget and Matching Funds

The ITWDP awarded \$750,000 to BART, which was 50% of the total budget. Although this was \$250,000 less than the originally-requested amount, BART scaled back the internal backfilling of positions, which did not receive the expected interest. The vast majority of the budget was for bridge and technical training, with lesser amounts for outreach and a smaller portion for assessment. BART representatives indicated that the reduction in FTA funding meant a reduction in matching, so the overall budget dropped by \$500,000. Colleges were less flexible than hoped, but BART was able to absorb recruiting and outreach costs to make sure federal expenditures were matched.

## Impact

BART representatives stated that one important impact of the project was that it highlighted partnerships with community agencies, WIBS, and community colleges. Project team members continued to interact and communicate after the end of the program, and college coordinators developed relationships with hiring managers at BART, relationships that still exist.

A second impact was that the project encouraged enrollment in electrical training programs. These technical programs increased enrollment due to work with BART. In addition, the program increased the public's knowledge of technical careers at BART. The agency was able to promote these classifications (as opposed to bus and train operators).

Finally, an impact for BART was related to closing the gap in technical knowledge it faced in hiring for technical positions. People applying to those positions often failed to make it through the selection process due to technical knowledge deficiency. However, after completing just two-thirds of the technical training program, some participants applied for and completed the selection process. This enhanced opportunity and competitiveness for these candidates and an improved pool of candidates for BART.

## Lessons Learned and Recommendations

Key lessons learned and recommendations for those wishing to implement a similar project put forward by BART representatives include the following:

- BART needed to better anticipate the impact on operations as employees left. The program took participants off of their current jobs, which impacted operations, as some of the students were BART employees who were not

able to work. Backfilling did not provide much relief, as few of the positions were filled.

- The project required a full-time Project Manager from the outset, who initially was assigned only part-time. The complexity of this program involving multiple WIBs, One-Stop locations, and multiple colleges led to a high volume of requests for presentations, budgets, administrative needs, and other tasks, which required a full-time manager.
- The project might have benefited from a closer coordination with BART Operations in the curriculum. Some minor changes could have allowed participants to work in skilled positions in the Rolling Stocks and Shops departments. Project staff became aware of this late in the application process and had to quickly select classifications. Earlier collaboration could have resulted in a greater range of positions impacted.
- The classifications chosen by BART were complex, and some had experience and on-the-job training requirements. It initially anticipated this would not be a problem, but it caused delays in trying to negotiate a waiver for program participants to be able to fill the positions. As of the date of the report interview, the union was not willing to waive the requirement and continued negotiations. Ideally, these work requirement issues should have been worked out prior to the program.

## Conclusion and Further Investment Recommendation

Although BART's TCLT did not operate exactly as intended, in that fewer internal applicants applied than expected and fewer positions required backfilling, in the end, TCLT exceeded the numbers it expected to train. The program provided assessment, bridge academic instruction, support, and college-level technical instruction for three positions for which technical knowledge and skills were a problem. By program's end, 77 participants completed the training, with 73 certificates earned and 26 positions filled.

Moreover, the project demonstrated the promise for an interesting single application process involving multiple community colleges in the area. This provided flexibility and choice for students, as well as the ease of a common entry point to the program.

The powerful combination of employer, workforce system, and community college system led to a fairly large-scale but rigorous training program, and students who graduated were able to pass the technical requirements for positions at BART.

The work experience requirements, which held back faster placement of graduates, appear to be issues that can be worked out in the future or incorporated into the program. Therefore, this appears to be a project worthy of further investment.

# Jacksonville Transportation Authority (JTA) – Back-2-Work

## Background and Problem Addressed

The Jacksonville Transportation Authority (JTA) was established in Florida as an Agency of the State with broad powers and duties related to the construction, operation, and maintenance of transportation systems and facilities in Jacksonville and northeast Florida. It provides high-quality regional transit services and roadway infrastructure connecting northeast Florida and will fund more than \$100 million for 27 transportation projects as part of its Mobility Works Initiative to improve ADA accessibility for transit, in addition to other major transit initiatives such as bus rapid transit (BRT) projects and the construction of an Intermodal Terminal Center. The first wave of projects was expected to begin during the fourth quarter of FY 2015.

Jacksonville suffered greatly during the recession, with small businesses hit especially hard. Meanwhile, according to a Disparity Study completed in 2013, there is an underutilization of individuals and contractors from the city's African American and Hispanic communities. Compared to the state as a whole, Jacksonville has more persons who are African American and Asian but fewer who are Hispanic; it also has a higher poverty rate. Many unemployed residents and small business owners feel disconnected from the mainstream economy and isolated from contract opportunities. Prime contractors note that they often struggle to meet Disadvantaged Business Enterprise (DBE) goals due to factors including:

- Lack of availability of ready, willing, able and qualified DBE firms
- Lack of required skill sets necessary to perform identified subcontracting tasks
- Difficulty locating a trained and skilled workforce
- Little to no training in management, compliance, or administrative aspects and requirements of the projects
- Limited knowledge and understanding of critical processes of a project, such as bonding, owner-controlled insurance, safety, bidding, estimating, scheduling, certifying payroll, financing, negotiating contracts, compliance, building relationships, teaming, and marketing.

## Proposed Workforce Solution

JTA's stated goal was to create new job opportunities by pairing needs with resources, creating and expanding business opportunities, and reducing health, safety, and wealth disparities through a program with two tracks. The first track was small business development that offered quarterly training to small businesses in the key areas in which JTA typically had difficulty identifying qualified contractors, such as financing, bidding, and estimating. The second track identified individuals to work on JTA projects. JTA planned to work with contractors after a project was awarded to identify their labor needs and planned to develop a database of qualified personnel or business to help large contractors staff their projects from small and disadvantaged businesses.

## Partnerships

JTA is one of only a few truly multimodal transportation agencies in the US. Its mission is to improve northeast Florida's economy, environment, and quality of life by providing safe, reliable, and efficient multimodal transportation services and facilities. In 1955, the Jacksonville Expressway Authority was founded to build bridges and expressways in Duval County funded by toll revenues. A merger in 1971 with several private bus companies paved the way for today's JTA. It served as the lead agency, fiscal agent, and coordinator for the Back-2-Work project.

Jacksonville Job Corps (JJC) is a no-cost education and career technical training program administered by the DOL that helps young people ages 16–24 improve the quality of their lives through career technical and academic training. JJC assists with teaching eligible young people the skills they need to become employable and independent and placing them in meaningful jobs or further educational programs. It identified students participating in the construction trades and screened them to ensure they were good candidates for the Back-2-Work program.

The Jacksonville Urban League (JUL) is a non-profit, non-partisan, community-based organization whose mission is to assist African Americans and others to secure economic self-reliance, parity, power, and civil rights. It provides education, employment, and job training assistance to youth, adults and older adults, and veterans. JUL provided a focused approach on identifying African American business owners or those who were unemployed/underemployed and were good candidates for the Back-2-Work project. Business owners were asked to participate in business development seminars designed to assist small business owners, and unemployed/underemployed persons were assigned to a strategic partner for necessary training;

CareerSource Northeast Florida is a publicly-funded agency that provides extensive workforce-related services in northeast Florida. Its mission is to

connect workers to jobs, with a special focus on veterans, and it provides innovative services that exceed employer requirements for the jobs of today and the future. It referred unemployed and underemployed individuals with construction-related experience to the Back-2-Work project. If additional training was required, individuals were assigned to a strategic partner that provided the necessary training; their names and information on their skill sets were provided to the prime contractor as a prospective project hire.

The Hispanic Institute for Life and Leadership (H.I.L.L.) of Northeast Florida, a professional development agency that focuses on the Hispanic community, is a non-profit organization with the mission of advancing business and Latino opportunities for success through inclusive and progressive mentoring, networking, and education. Its integrated programs focus on two constituencies—those who represent the local Hispanic labor force and businesses that are the employers and producers of goods and services that cater to this market. For Back-2-Work, it provided a focused approach on identifying individuals in the Hispanic-American community that were business owners or unemployed/underemployed and were good candidates for the Back-2-Work project. H.I.L.L. already provides education and job training assistance for adults and veterans. Identified business owners were asked to participate in the business development seminars designed to assist small business owners.

Beaver Street Enterprise Center is a 25,000-square foot professional office facility offering modern workplace amenities for startup and existing small businesses as well as business technical assistance, counseling, mentoring, and assistance in marketing and obtaining business financing. It is geographically positioned to stimulate economic growth in Jacksonville's northwest neighborhoods and is run by non-profit Core City Business Incubators, Inc., as an initiative of Fresh Ministries. Identified business owners were asked to participate in the business development seminars that were designed to assist small business owners. The Center was also used as a location for training classes for the business development seminars.

The International Brotherhood of Electrical Workers (IBEW) represents approximately 750,000 active members and retirees who work in a wide variety of fields, including utilities, construction, telecommunications, broadcasting, manufacturing, railroads, and government. IBEW has members in the US and Canada and stands out among American unions in the AFL-CIO because it is among the largest and has members in many skilled occupations. IBEW assisted in identifying members who desired to participate in the construction trade; the members were screened by IBEW staff to ensure they were good candidates for the Back-2-Work project. If additional training was needed, they were assigned to a strategic partner that provided the necessary training. Names and skill sets were provided to the prime contractor for the selected project hire.

The Florida Small Business Development Center (SBDC) at the University of North Florida (UNF) is an organization funded through the US Small Business Administration to assist potential and existing business owners by providing the management advice, training, and information needed to start, grow, and profit. SBDC offers existing business owners interested in reviewing strategic business processes, increasing sales, and/or improving their bottom-line access to the latest information needed to succeed, including market data, financial analysis, business planning tools, and specialized programs. SBDC identified small business owners for the Business Development Academy and partnered with the Back-2-Work project in conducting training classes at the Academy.

Duval County Public Schools (DCPS) is the 22nd largest school district in the US and the sixth largest school district in Florida. It is committed to ensuring that students are prepared for success in college or a career and life. DCPS engages students, teachers, administrators, parents, and the entire community with the goal of exceeding educational expectations and follows a District strategic plan to help guide initiatives designed to produce positive results. DCPS partnered with the Back-2-Work program by identifying minority businesses in its database for participation in the Business Development Academy. In addition, a few construction projects from DCPS were considered and selected to participate in the Back-2-Work project.

The US Department of Housing and Urban Development (HUD) Jacksonville Field Office has the mission to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers, meet the need for quality affordable rental homes, use housing as a platform for improving quality of life, and build inclusive and sustainable communities free from discrimination. HUD's Jacksonville Field Office serves the northern 36 counties of Florida. HUD construction projects were considered as being selected to participate in the Back-2-Work project.

Jacksonville Electric Authority (JEA), created by the City of Jacksonville to serve the community, owns and operates an electric system with five generating plants plus all transmission and distribution facilities, including more than 745 miles of transmission lines and more than 6,500 miles of distribution lines. Its vision focuses on customers, the community, and safety. JEA partnered with the Back-2-Work program in identifying minority businesses in its database who were suitable for participation in the Business Development Academy. In addition, a few construction projects of JEA were able to be selected to participate in the Back-2-Work project.

HBI Building Careers (HBI) is a national leader for career training in the building industry. Its training programs are national in scope but implemented locally, using proven models that can be customized to meet the workforce needs of

communities across the US and internationally. Through certification programs, mentoring, pre-apprenticeship training, and job placement services, HBI prepares veterans who want to work with the skills and experience they need for careers in the building industry. Its graduates are highly-skilled, certified, and in demand by businesses in the construction industry that are interested in hiring qualified veterans. The placement rate of HBI program graduates nationwide regularly exceeds 80%. HBI played an integral part in providing the training needed for individuals before going on any construction site. The following training was offered:

- CPR and First Aid certification
- Professional mentoring
- OSHA 10 card
- 75% tools-in-hand training
- Pre-apprenticeship certification training

Several proposed partners did not play a role in the Back-2-Work project. H.I.L.L. was too expensive relative to other providers, and the proposed services of HBI were passed on to the North Florida Safety Council, which provided better rates on training such as OSHA, CPR, and other safety courses. IBEW met with JTA, but that proposed partnership did not come to fruition. Otherwise, the identified partners performed as expected. JTA already had relationships with many partners, including DCPS and JEA; it had worked some with JUL and had visited Job Corps and had invited CareerSource to career days and attended career fairs.

JTA hosted a meeting and invited all partners to attend after they received the FTA award and solicited partner support. The partners tended to meet by teleconference, and the Project Manager followed up with individual partners.

## Project Implementation

### Marketing

The Back-2-Work project was open to all, but it focused on targeting Jacksonville's minority community, including African Americans, Hispanics, veterans, and women, to help ensure attainment of DBE project goals and ensure that those hit the hardest by unemployment in the region were provided opportunities. JUL had very strong contacts in the African American community, as did CareerSource. JTA also reached out to veterans and reached targeted groups through the National Associate for the Advancement of Colored People (NAACP). Partnering agencies were also involved in outreach to its vendors. JTA's Communications Director reached out via social media and the JTA website, and JTA has a database of 1,500 people or small businesses; when email marketing is used for positions or opportunities, a strong response is generally

generated. More than 80 outreach activities took place during the project. The project also created radio announcements, and the Project Director was a guest on 102.7FM during a show hosted by the President of the Urban League, which allowed for discussion of the project, taking calls, and promoting the project.

### Subcontractor Opportunities and Labor Needs

JTA staff identified subcontractor opportunities for small and disadvantaged businesses and developed a list of upcoming projects to disseminate electronically to these businesses. Staff also worked with prime contractors to develop listings of labor needs for each construction project. Prime contractors indicated their needs, including how many people, necessary skills and pre-requisites, and tests workers needed to be able to pass. Project personnel also attended pre-bid conferences to talk to different areas of JTA, such as engineering, who provided information on contracting opportunities, which was distributed every Friday to all identified small businesses. They followed up with the contractors to determine hiring or subcontracting needs for their project bids.

### Quarterly Business Development Seminars

JTA subcontracted UNF's SBDC to conduct quarterly business seminars. The process started with a needs analysis, as JTA met with UNF staff to describe the skills small businesses needed to successfully contract with JTA or serve as a subcontractor. In addition, project staff met with prime contractors about what they needed from small businesses. Common topics were Davis-Bacon Act training, bidding, and cost estimating. Often, prime contractors found that small businesses were capable of doing the work but were poor at estimating what it would cost. In addition, the project included topics that made a small business successful—marketing, branding, government contracting and bidding, planning, and managing for growth.

The seminars were held on the third Thursday of each quarter at locations around the city identified by project staff working with City Councilmen, with the aim of ensuring that the seminars were conducted in different districts (especially minority districts). Generally, space was donated as an in-kind service, and training was conducted from 5:00–7:00 PM to make it easy for people to attend after work. A sign-in sheet tracked attendance and gathered contacts. UNF provided each participant with a printout of slides at sign-in. Attendance usually was 30–40 people, sometimes as high as 80–90. One session was attended by 100+ people, held in coordination with a construction firm that had recently won a very large project. Those who attended a seminar were granted free access to assistance from SBDC for a year (SBDC typically charges for assistance); if a contract was available and the small business needed assistance writing up a bid, SBDC staff worked with them at no cost. SBDC staff nominated Back-2-Work for a regional SBA award, for which the project was selected.

**Figure 6-1**

SBA Award  
Announcement  
including JTA

**SBA**  
U.S. Small Business Administration

## Press Release

**North Florida District Office**

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Release Date: March 27, 2018  
Release Number: NFL 18-05

Contact (NF): Nayana Sen (904) 443-1933  
Internet Address: [www.sba.gov/northflorida](http://www.sba.gov/northflorida)

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### SBA Announces 2018 District and State of Florida Small Business Week Winners

**Jacksonville, FLA.** - The U.S. Small Business Administration (SBA) North Florida District Director Wilfredo J. Gonzalez is pleased to announce the winners of SBA's 2018 District and State of Florida Small Business Week Awards.

"Small Business Week is an opportunity for the SBA to recognize the hard-work and accomplishments of small business owners throughout the country. I am pleased to announce the winners in our area. These winners are highly deserving of their respective awards and recognition," stated Gonzalez.

**North Florida District and State of Florida Small Business Person of the Year**  
Mr. Michael Zaffaroni, Owner  
Liberty Landscape Supply (Jacksonville and Fernandina Beach, Florida)

**North Florida District Small Business Exporter of the Year**  
Mr. Carlton Smith  
Chief Operating Officer  
Heavy Equipment of Florida (Jacksonville, Florida)

**North Florida District and State of Florida Veteran-Owned Small Business Person of the Year**  
Ms. Barbara Kent, Owner  
BuyGones (Fernandina Beach, Florida)

**North Florida District and State of Florida Woman-Owned Small Business Person of the Year**  
Ms. Heather Bennett, Owner  
Paisley Grace Designs (Yulee, Florida)

**North Florida District Minority-Owned Small Business Person of the Year**  
Mr. Morris Jarmon, Sr., President  
Island Air Express, LLC (Panama City, Florida)

**North Florida District Small Business Advocate of the Year**  
Mr. Bernard Dandridge, SBA/USDA Loan Specialist  
Florida Capital Bank (Jacksonville, Florida)

**North Florida District Community Partner of the Year**  
Jacksonville Transportation Authority (JTA)  
Accepting on behalf of the JTA is Mr. Ken Middleton, Sr. Manager, Diversity and Equity Program

### Labor Needs for Potential Employees/Trainees

Project staff worked with each contractor to identify labor needs for each project. Staff disseminated the information to strategic partners for potential candidates, and the Project Manager contacted the prime contractors and internal JTA units with contracting needs. From the time the opportunity was announced, there was generally a 45-day period before bids were due. Once the winning firm was selected and approved by the Board, the Back-2-Work staff contacted the prime contractor(s) to determine if they had labor needs, then tracked to see what individuals or small businesses were hired; often, the small business called project staff to celebrate success at getting work. Contracting firms provided information monthly to track the progress. In addition, other agencies such as DCPS and HUD had staffing needs, and the exchange was mutually beneficial. Working with HUD identified a source of paratransit drivers to JTA.

## Quarterly Newsletter

Project staff developed and distributed a Back-2-Work newsletter to all potential employers, stakeholders, and interested parties, which included information in addition to Back-2-Work that might be of interest to those invested in the project. The newsletter was distributed during the last five quarters.

Overall, the Back-2-Work representative noted that implementation of the project went smoothly. However, two problems were identified: 1) the original Project Manager left early in the project and a replacement had to be found, which delayed progress for a month; however, the replacement was from Jacksonville and had numerous contacts that helped get some organizations more involved; and 2) working out who would be a viable partner, as some providers wanted to charge what JTA considered to be excessive rates.

## Outcomes

JTA's Back-2-Work initiative set out a number of specific program goals in the proposal. The program was established, launched, and marketed regionally. Table 6-1 shows the goals listed in the proposal and the actual outcomes achieved. The Back-2-Work representative noted that it impacted 105 applicants who sought work; of those, 71 obtained work, and five were promoted after the program.

**Table 6-1**

JTA Back-2-Work  
Outcomes –  
Goal and Actual

Goal Description	Goal	Achieved
Individuals impacted	300	590
Register applicants	150	113 (75%)
Participants placed or promoted	120	76 (63%)
Placement rate for applicants	80%	67% (-13%)
Employment retention 90 days	90%	100% (+10%)
Businesses registered	75	484*
Complete programs	90%	100% (+10%)

\*Seminar attendees; unclear how many specific businesses were represented.

The project representative also noted that those who did not retain employment were not counted as “hired”; this accounts for the 100% retention rate. It was also noted that the number employed would be closer to 80+ if not for some background check or other disqualifying issues between the participant and contractor. In addition, short seminars resulted in anyone who started a program completing it.

## Budget and Matching Funds

The ITWDP funds provided \$200,000 (50%) to the Back-2-Work project, which primarily were used for developing and delivering the small business seminars around the area and marketing the project. JTA and its partners contributed

in-kind contributions of staff time and space for conducting the business seminars. Overall, the budget went as expected, although there was a reduction in the Travel category and funds were shifted to Training about a third of the way into the project as it became clear travel costs had been overestimated. The project concluded in August 2019.

## Impact

Primary impacts noted by project representatives were that Back-2-Work helped contractors meet their DBE goals and that the businesses helped by the program asked for more people to hire. The project helped people obtain good jobs; for example, one employer for a job that offered \$21 per hour asked if there were “more like a participant” hired on that job. Another person who completed the training was hired as a supervisor for a three-year project.

The trainings for small businesses were very beneficial; participating businesses learned a great deal and were better prepared to work successfully with prime contractors and run successful businesses.

Another positive impact was in reputation with the community. The fact that the program won an SBA award is evidence that the community appreciated the project. Representatives noted that employers were contacting the Back-2-Work project manager for recommendations for DBE firms and labor for non-JTA projects.

## Lessons Learned and Recommendations

Key lessons learned and advice to those wishing to implement a project similar to JTA’s include the following:

- Project leaders should have passion for helping people get jobs. This is not about money, it is about helping people obtain money through contracts.
- Stay true to the mission of the agency. JTA’s CEO has a vision for what JTA does and sees it as more than just transportation—he believes JTA impacts people’s lives via contact with the agency. In some cases, there are some negative impacts, such as tearing up roads, creating dust and dirt, causing detours, etc., but it can be very powerful if a father can say to his children, “I helped build that road, and put up that bridge....”
- The project manager should have good connections in the community. Much of what gets accomplished comes down to relationships.

## Conclusion and Further Investment Recommendation

The Back-2-Work project appears to have been implemented to fill the needs of small businesses (work and training), large contractors (qualified DBE subcontractors), and JTA (qualified firms to work on its expansion projects).

During the course of the project, almost 500 people from small businesses attended JTA-sponsored small business training seminars, and JTA and its partners got roughly 75 people hired or promoted. Much of the placement success appeared to have been having a person dedicated to networking and acting as a trusted conduit between the small businesses and those who needed qualified DBEs and workers. Contacting employers immediately after project award was a “just in time” approach when needs were likely highest.

This project can be readily replicated with relatively low Federal investment as a way to continue to expand the labor pool to non-traditional or disadvantaged populations to meet the needs of transit agencies for qualified labor for construction as transit systems continue their growth and expansion.

SECTION  
**7**

## Chicago Transit Authority (CTA) – Second Chance and Priority Careers Program

### Background and Problem Addressed

The Chicago Transit Authority (CTA) is the primary provider of bus and heavy rail services in the Chicago region, with a service area that encompasses 234 square miles in Chicago and 35 surrounding suburbs. Serving more than 80% of the public transit trips in the six-county Chicago metropolitan area, CTA is a critical component of the region's integrated mass transit system and works in coordination with other area operators, including Metra commuter rail and Pace suburban bus service. CTA has an extensive transit network, which was built between 1892 and 1920. Its network provides north-south and east-west connections throughout Chicago in addition to links to the area's radial rail network.

Large numbers of anticipated retirements compounded by the difficulty in recruiting new employees that possess the requisite skills have left transit agencies such as CTA with skill gaps; transit agencies are expected to hire and train an equivalent of 1–1.5 times the current workforce over the next decade. Operations and maintenance jobs are projected to account for 95% of transit and ground transportation openings in future years. CTA was aware of the need for skilled mechanics and, at the time of the proposal, had 35 diesel mechanics vacancies.

Of the top ten transit job openings projected until 2022 due to industry growth and separations, operators account for the largest share, with lesser but significant growth for mechanics, transportation attendants, and bus/rail servicers. Real-time job postings for transit positions show that drivers/operators are among the highest in demand.

### Proposed Workforce Solution

Second Chance sought to meet the demand of these projected gaps by providing training in diesel technologies and other transit fields through paid training and valuable on-the-job experience. The program would partner with local social service agencies to provide access to training and employment opportunities in the transit field for individuals with barriers to employment.

CTA would expand and augment its Second Chance program by expanding enrollment to reach more targeted job seekers, authoring career path curricula for diesel mechanics and other fields, implementing comprehensive skills testing and assessment tools for project participants, adding nationally-recognized certifications, and developing job placement services for graduates who successfully completed 12 months of paid job training. Program participants would receive valuable experience as bus/rail car servicers, diesel mechanics, or bus operators. Second Chance prioritized individuals with barriers to employment, including ex-offenders, abuse survivors, and homeless persons.

## Partnerships

CTA's strategic partners consist of non-profit organizations that support the transit and transportation workforce development. It selected 14 social service agencies that would identify and work with qualified job seekers with barriers to employment. These agencies would partner in offering job readiness classes, soft skills, and some technical classes.

The Cara Program helps people affected by poverty build the skills and confidence needed to get good jobs. It provides training, coaching, job placement, and retention assistance.

The North Lawndale Employment Network (NLEN) assists residents through employment initiatives that lead to economic advancement and an improved quality of life. It offers employment services and transitional jobs to residents, many of whom are citizens returning from incarceration and others with significant barriers to employment. In 2004, it launched Sweet Beginnings, a social enterprise and wholly-owned subsidiary of NLEN.

A Safe Haven helps people who are homeless and in sudden or chronic social and financial crisis address the root causes of their problems and helps them achieve sustainable self-sufficiency. For more than 20 years, it has provided individualized services through an integrated model and specialized programs.

Phalanx provides workforce development solutions and strength-based social services to disadvantaged and at-risk populations. It assists economically-disadvantaged children and families in the pursuit of self-sufficiency in the Chicago area.

The Saint Sabina Employment Resource Center, in partnership with local and state government, operates a full-service employment center, providing client assessment and screening, job matching, service referral, resume preparation, and job training programs to southside communities.

The Haymarket Center aids people with substance use disorders in their recovery by providing comprehensive behavioral health solutions through

evidence-based interventions and state-of-the-art programming geared towards strong outcomes.

St. Leonard's Ministries provides a setting for men and women recently released from prison to reintegrate into society. Residents are provided with an array of program services designed to assist them as they make the transition to successful, independent living. During their stay, they are helped to reassess value systems, reorder priorities, and develop socially and legally acceptable patterns of behavior.

The Westside Health Authority (WHA) operates one of Chicago's two "one-stop-shops" offering life-building services for ex-offenders returning to their communities and also provides employment services. With more than 1000 client visits monthly, it has placed and trained more than 10,000 residents in jobs since 2005.

The Center for Changing Lives (CCL) provides coaching on financial, employment, and resource mobilization that enhances lives, training and skill enhancement opportunities, and advocacy and organizing on economic policy and practices that open up opportunities and resources.

Goodwill Industries of Metropolitan Chicago is a diverse non-profit community organization governed by a volunteer Board of Directors. It provides training, employment, and supportive services for people with disabilities or disadvantages who seek greater independence.

The Howard Area Community Center (HACC) is a social service agency that provides affordable and free education, employment, and health assistance programs for the greater Rogers Park area. Many of HACC's services are life-sustaining. Individuals and families set their own goals, and HACC lends a helping hand along their journey to success. HACC is a collaboration among donors, community members, and service providers.

Inner Voice Chicago serves single adults, families, and veterans who are homeless. As part of its network of services throughout Chicago, it is the access point for emergency and transitional shelter for Chicagoans who find themselves homeless and needing help.

The Chicago Department of Family and Support Services (CDFSS) works to provide assistance to Chicago residents of all ages who are most in need. It connects Chicago residents and families to resources that build stability, support their well-being, and empower them to thrive and serves as an agency quality control agency. CTA would contact CDFSS if any agencies were not performing their function as expected, and CDFSS would ensure the provider corrected the issues.

In addition to social service agencies, CTA also partnered with educational institutions for Second Chance. City Colleges of Chicago (CCC) is the largest community college system in Illinois and one of the largest in the US, with more than 4,000 faculty and staff serving 80,000+ students annually at seven colleges and five satellite sites. CCC was to provide courses in Customer Service for Professionals and Basic Mechanical Skills.

Harper College is one of the largest community colleges in the Chicago area, serving more than 35,000 students annually in Chicago's northwest suburbs. Its academic programs prepare students for careers and for transfer to four-year universities, and it offers Associate degree and certification programs, advanced career programs, workforce training, professional development, continuing education classes, accelerated degree options for adults, and developmental education programs. Harper was to provide assistance with a Commercial Driver's License (CDL) preparation course.

CTA had prior experience working with CDFSS. Working with Harper College was new, which was selected through a competitive bidding process. City Colleges of Chicago was also new to CTA but had a mechanic's shop the program could use.

Communication took place via a kickoff meeting, followed by meetings after each 12-week cycle to determine what was working and what could improve.

## Project Implementation

### Project Development

CTA's Second Chance program is a minimum one-year opportunity to provide participants with skills training and experience cleaning buses and trains. Participants receive training and career coaching on resumes, work ethic, timeliness, conflict resolution, and work-related policy training. After a year with CTA, participants can apply to jobs if they meet qualifications.

Minimal development was needed, as the Second Chance program already existed but was being expanded. CTA held a kickoff meeting with all partners to ensure that all were aware of how the project operated, highlight the project model, explain the participant flow, and ensure that each agency understood its role. A curriculum was developed to expand the training to facilities maintenance and diesel maintenance by providing basic mechanical skills training.

### Participant Selection

Partners are responsible for recruiting participants based on CTA guidelines. Applicants must be age 21, live in Chicago, and have a background that includes no violent or sexual crimes. In addition, they had to have a barrier to

employment such as no work history, criminal background, domestic violence survivor, addiction, low literacy, low numeracy, or living in a shelter with no stable home. They could not live at a halfway house, must have been out of jail at least six months, be actively engaged with the referring agency for at least two months, and show competencies for success. Referring partners are responsible for preparing the candidates for the Second Chance program; generally, this means four-six weeks of job readiness training.

Applicants are fingerprinted for background processing and complete a medical review. Participants that pass those milestones receive a pre-hire orientation and attend a new employee orientation that thoroughly outlines program guidelines, eligibility requirements, job functions, placements and union participation.

### Training Provision

Training takes place in two cohorts, with each cycle running 12 weeks. Each runs at the same time, with roughly 20 people in each; cohorts are divided into two groups to provide smaller class sizes and more individualized attention. For the first five weeks, the entire cohort is trained together. Everyone receives foundational courses such as Customer Service for Transit Professionals, safety training, and coaching (e.g., self-awareness, etc.) In the sixth week, the cohort divides into one of two tracks: Operations or Maintenance, which participants choose based on self-knowledge and knowledge of transit. They receive an additional six weeks of training specific to operations or maintenance based on their choice.

Throughout the 12-week program, participants spend 8 hours in a paid training program; for the first five weeks, they are in training eight hours per day. All participants received the National Transit Institute's OSHA 10-hour certification and FEMA's Incident Command certification, a recognized certification for front line employees regarding how to respond to incidents. Each participant also receives resume help and training on interviewing skills. For the last eight weeks, training days vary based on the track selected. Those who selected the Maintenance path—servicers and diesel mechanics—continued the program by taking the CDL Permit class to prepare them for testing. CDL permits are required to apply for permanent bus-servicer and diesel mechanic positions. Students who successfully complete this training obtain a recognized certificate of completion, OSHA certifications, and a State of Illinois CDL permit. For the Maintenance track, college partners developed a basic mechanical skills training, which was the first step in training to be a diesel mechanic.

Participants on the Operations path also receive training to obtain a CDL permit and receive transit-specific training to prepare them to compete for positions in operations. City Colleges of Chicago used its training facility and experiential classroom in which instructors taught basic mechanical skills. Participants learn

to read schematics, identify tools, and perform basic math related to vehicles, electrical components, and wiring. In addition, they complete the OSHA 10-hour course and other specific maintenance-related training. Successful completion of the training includes a recognized Certificate of Completion and a State of Illinois CDL permit, as applicable.

CTA developed a third administrative path, a small pilot program providing lessons related to administrative work as assistants. However, CTA found there was insufficient interest in this path.

### Support

CTA partners with many social service agencies to provide job coaching to help participants make good decisions about what they can do, their interests and aptitudes, and their motivation to complete the training. These agencies also help them address barriers to employment.

### Outcomes

The primary goal of CTA's Second Chance program is to enhance the current program to train individuals with employment barriers to allow them to earn experience and gain knowledge needed to successfully compete for front-line transit positions.

Project goals and outcomes are summarized in Table 7-1. The project enrolled 286 participants (108% of goal), and 236 were retained to the end of training. (Note: This project remains active.)

**Table 7-1**  
CTA Second Chance  
Outcomes –  
Goal and Actual

Goal Description	Goal	Achieved
Participants enrolled	265	286 (108%)
Retained in training	212	236 (111%)
Completed training	170	236 (124%)
Literacy/numeracy gains	170	No Data
Obtained employment	-	112
Obtained credentials and certificates	-	1,400
Second Chance handbook	1	1

The group of participants that completed the program, as of the interview for this report, earned more than 1,400 credentials and certificates including OSHA 10, CDL, National Transit Institute All Hazards Awareness training, Customer Service for Transit Professionals, FEMA's Incident Command Systems, NTI's Crisis Communication, and NTI's Assault Awareness. In addition, Harper College gave credit hours for passing the CDL preparation course.

In total, there were 286 project participants, with 236 completing the program; 11 did not complete the training but left for an employment opportunity, resulting in 247 positive outcomes. A total of 112 gained permanent employment; of those, 95 were hired by CTA. Eleven left for other employment, and 23 were hired before training ended, but CTA allowed them to complete the training. Representatives from CTA indicated that where people tend to drop out of the program is after they obtain their CDL permit. As CTA is a third-party administrator for licensing, participants have to arrive with a CDL permit; once they pass their permit test, permits are copied and sent to Human Resources, but participants begin to get called for employment immediately.

No data were provided for literacy/numeracy gains. Approximately 80% of participants have felony convictions. Overall, 34% of project participants are women.

## Budget and Matching Funds

The ITWDP provided \$750,000 in Federal funds (11% of the total), with most funding supporting training and consulting. CTA provided about \$400,000 for basic mechanical skills as part of contribution. The project budget went as expected, particularly since this is an existing program that has been operating for some time. A large portion of the funding provided by CTA (approximately \$7,000,000) went to participant wages during training and internal resources used and project management time. This project remains active.

## Impact

The CTA representative indicates that a major impact for the organization is that they develop talent to fill internal positions and positions that are challenging to fill at the rate required. Front line positions are often open due to turnover and promotion. This project provides a realistic view of transit and CTA, so participants can make sound decisions regarding whether this is a career of interest. CTA has been able to employ those graduating and, thus, has a “home grown” product.

In addition, there is an impact on the transit industry, as the project is producing more qualified people to fill positions. Participants that complete the program have a CDL and are able to work in a number of transit and transportation positions. The impact currently is local to Chicago, but if replicated elsewhere, it could have broader impact, as it has truly developed transit professionals through this program.

Another impact is that the project has impacted the community and changed people's lives. The goal for individuals is self-sufficiency and employment, and the project provides participants with skills, training, and employment that leads to

having monetary resources, healthcare, etc. It also allows many to move from temporary employment to permanent employment.

In terms of sustainability, CTA plans to sustain the program and is seeking funding. A new position for another Second Chance Coordinator had been posted at the time of the interview.

In addition, for first time in the history of program, Second Chance could be part of the Collective Bargaining Agreement (CBA). Previously, the program operated with a “side agreement” rather than part of the bigger CBA. Becoming part of the CBA means the program must be negotiated with other positions. Previously, there was a chance the union would not renew the agreement, but that issue has been resolved. CTA is also able to increase the size of the program from 265 to 350 individuals and add staff.

CTA is working with a vendor to develop a basic mechanical skills course (different from that developed by City Colleges) so it can be delivered in-house. CTA is also finishing a handbook on the program that will lay out the model for Second Chance for others to follow.

## Lessons Learned and Recommendations

Key lessons learned and advice to those wishing to implement a project similar to CTA’s include the following:

- Carefully consider the types of people the project will serve. Having a clear audience is imperative to success. CTA found it did not have people interested in the administrative track, and there is a trend away from diesel and toward electric. It is important to know the population from which participants will be drawn and the industry and where it is headed.
- Establishing partnerships is impactful. Partner with professionals in their industries. Having partnerships with knowledgeable agencies and local colleges enabled each phase to go smoothly, as each has expertise in its respective part of the project.
- Know the program’s capabilities. Since no one can know who will want to participate, it is important to know what the program can and cannot do and who is an appropriate fit.
- People who ultimately may not be a good fit for the agency can be sent to other transit partners that may have positions with less specific requirements at which graduates can find work.

## Conclusion and Further Investment Recommendation

CTA's Second Chance program is an example of the benefits of funding expansion of an established program. Because the program was well-established, CTA has been able to exceed its recruitment and training goals and employ more than 120 people—95 at CTA alone—demonstrating that the program is fulfilling the purpose of creating a pipeline of trained candidates to fill positions with high turnover. FTA is the beneficiary of all prior program development and of CTA's willingness to fund the vast majority of the cost.

The project also demonstrates the benefits of serving populations with serious challenges to employment. With proper screening and preparation, these individuals can prove their value over a year before permanent employment. This means CTA is developing employable professionals from a population motivated to find and keep employment. To do this, CTA has a host of partners that recruit and take care of work-readiness training so candidates that arrive for the Second Chance program are ready to focus on training.

The project seems worthy of investment and expansion. It is replicable in any area with a substantial population of disadvantaged people with barriers to employment. However, the program also requires working with a number of social service agencies, and CTA finds having a partner such as CDFSS to ensure quality control is helpful. The handbook being developed will provide a roadmap to follow.

SECTION  
**8**

# MassDOT – Construction Career Development

## Background and Problem Addressed

The Massachusetts Department of Transportation (MassDOT) oversees roads, public transit, aeronautics, and transportation licensing and registration in the Commonwealth of Massachusetts. For a number of years, MassDOT had been engaged in aggressive efforts to bridge programs and streamline workforce development efforts. As a result, it administered a structured Massachusetts Career Development Program serving both young adults in a vocational/technical school setting and older adults seeking to gain entrance into the industry.

MassDOT had been working with a number of statewide training partners to support the development and growth of registered pre-apprentice programs, with a focus on increasing the targeted groups' participation in the transportation industry. However, there were barriers to accessing transportation-related careers, such as poverty, discrimination, an insufficient number of applicants, lack of basic skills, and lack of job readiness. Employer feedback indicated that industry employers were looking for hiring sources that were able to refer trained, screened employees who were ready to work.

## Proposed Workforce Solution

The Massachusetts Construction Career Development Program is a statewide partnership collaborating to enhance and augment existing registered pre-apprentice programs for minorities, women, and disadvantaged individuals to increase the targeted groups' participation in the transportation industry. The project sought to enable training providers to augment the current curriculum with valuable industry-recognized credentials to improve the existing pre-apprenticeship programs in the Massachusetts construction trades. The goal was to add features to these programs to maximize both educational opportunities and targeted support to women, minorities, and disadvantaged individuals. MassDOT would thus tailor pre-apprenticeship education for the construction trades to pre-apprentice education for transportation-related employment. The project sought to collectively address the long-time under-representation of minorities, women, and disadvantaged individuals in the transportation industry so they could share in the benefits of public transit projects and to provide employers in the transit field that needed screened, trained and ready-to-work employees.

## Partnerships

MassDOT served as the lead applicant, oversaw the proposal, and acted as the fiscal agent, subject matter experts, and employer partner. It chose to work with four partners; MassDOT representatives noted that some funding sources were coming to an end, and the partners wanted to maintain pre-apprenticeship programs, so they decided to collaborate. MassDOT would continue to fund the vocational school pre-apprentice program at 100% funding and would not augment the program with FTA funds.

Community Works is a multi-partner pre-apprenticeship program that provides low-income and low-skilled Springfield and Holyoke residents, particularly minorities, women, and disadvantaged young adults, with access to family-sustaining careers in construction. It equips participants with industry-recognized credentials/certifications and prepares them to apply for, enter, and successfully complete a registered trade apprenticeship program, creating pathways among literacy providers and pre-apprenticeship and apprenticeship programs. It is a 30-member partnership involving contractor unions, joint apprenticeship training committees, the University of Massachusetts, community colleges, Career Centers, a WIB, community-based programs, and the Mayors of Springfield and Holyoke, serving the region since 2010. For this project, Community Works added a week of training to its next two training cycles and a three-week paid on-the-job training component to each cycle.

Building Pathways is a State-registered pre-apprenticeship program sponsored by the Building and Construction Trades Council of the Metropolitan District in partnership with the Boston Housing Authority and Action for Boston Community Development, Inc. Its stakeholders include several industry employers and employer groups, labor unions and building trades Registered Apprenticeship Programs (RAPs), career centers, and the Mayor's Office of Jobs and Community Services and is networked with several community-based organizations. Building Pathways is a six-week training program designed to provide low-income, minority, and women participants with the skills and certifications necessary for successfully entering into post-secondary apprenticeships and employment in the construction industry. Trainees in the program are provided with hands-on vocational skills, classroom instruction, and soft-skills/career development training, followed by placement into a union apprenticeship program and employment. Building Pathways added two training cycles to its program for this project.

Pre-Apprentice Construction Training (PACT) reorganized and is now known as the Worcester –Fitchburg Pathways Pre-Apprentice Program (Worcester Building Pathways). It is a State-registered pre-apprentice program (application pending) sponsored by Worcester-Fitchburg Building Trades through a partnership between the Central Massachusetts WIB and Worcester- Fitchburg

Building Trades. The program mirrors the Building Pathways Program in Boston and is a six-week training program focusing on recruiting from low-income communities, people of color, and women. The program provides participants with the skills and certifications necessary for successfully entering into registered apprenticeship programs with the Building Trades and employment in the construction industry. Trainees in the program are provided with hands-on vocational skills, classroom instruction, and soft-skill/career development training, followed by a placement into a registered union apprenticeship and employment. This partner recruited and trained additional individuals.

Youth Build Boston is a registered pre-apprentice program that seeks to empower and assist underserved young people with essential social, vocational, academic, and life skills necessary to navigate a positive pathway to self-sufficiency and neighborhood responsibility. Program components include introduction to union apprenticeship, construction math, blueprint reading, OSHA 30, signal rigger, forklift, building envelop, hands-on residential and commercial training, field visits, job readiness and placement, and follow-up services. Youth Build Boston provided services to additional individuals with this funding.

All Strategic Core Partners including MassDOT have registered pre-apprentice programs in place approved by the Division of Apprentice Standards. These programs have registered apprentice sponsors and meet the Commonwealth's Standards for Pre-Apprentice Programs. Additional networks of more than 50 partner organizations support the core partnership across the Commonwealth.

MassDOT already had relationships with each partner. The MassDOT representative noted that the state has an active group of individuals committed to pre-apprenticeship training programs for building trades and construction. The four partners were established, successful programs. The State required that pre-apprenticeship programs be registered and approved by the State DOL. All partners already had approved, registered pre-apprenticeship programs and a union sponsor, met union standard curriculums, and were successful programs with a history. This gave MassDOT the confidence to deliver on their part of the project.

The MassDOT representative indicated that the biggest problem in partnership formation was the delay in Federal funding. Because it was the first time leading such an application, MassDOT was unaware that delays might occur, and the partners did not understand the delay. Also, the internal MassDOT process to get contracts approved took additional time and delay. Otherwise, forming the partnerships was smooth, as the relationships were already in place. Partners collaborated well and shared resources and trainers to make the programs successful.

Project communication started with a kickoff meeting with the partners upon award of the project. The meeting covered reporting, performance expectations, and other program elements. Throughout the program, there was continuous contact regarding events in which partners wanted everyone to participate, such as graduations or special trainings; employment opportunities were also shared when one partner learned about an opportunity that would benefit another, that information was shared. Otherwise, communication consisted of routine e-mails and phone calls.

## Project Implementation

### Pre-Apprenticeship Program Modification

There was some hesitance initially on the part of the apprenticeship programs to add courses specific to transportation construction, as there is an existing debate among pre-apprenticeship programs in the building trades as to whether skills are transferable from one type of construction (e.g., residential) to another (transportation). However, the MassDOT project leader insisted that there be a transportation-specific component added to the existing programs. For instance, highway-specific credentials were included, such as OSHA 10, OSHA 30, flagger, signal certifications for transit work, first aid, and CPR, and it was also highly recommended that training field trips and site work include transit projects and highway construction projects. Some (such as Building Pathways Boston) had an active employer group, but highway/transit contractors did not, so MassDOT encouraged them to add employers from the transportation industry, which they did.

All four partner programs recruited, trained, and placed people. Community Works was in the midst of a training cycle and so proposed to add an extra week to its training and identify a pool of participants for paid employment to start building a resume.

The delay in funding affected the implementation plans for the project. The partners expected to have a pool of trained people ready for the additional portion of training specific to transportation just after funding was awarded; however, due to the delay (relative to their expectations), those trained people were gone by the time the funding was available. The partners contacted the prior class of participants and offered them the additional training; however, some could not be contacted, had jobs, or were not interested. The partners did not have sufficient funding for another cycle of six weeks or to add a seventh for this project. MassDOT decided to open the offer to graduates from prior cycles of the pre-apprenticeship program, providing the additional week of training and employment experience. Ultimately, the group trained was a combination of individuals previously trained in earlier cycles who were available and would benefit from the extra week and placement.

Community Works' portion of the project had two main phases—the additional week added to the training focusing on transportation and on-the-job placement. Community Works used its normal recruiting and selection processes and ran its six-week pre-apprenticeship program, which (as is typical of such programs) involves soft-skills training on topics such as attendance, timeliness, behavior, resume writing, interviewing, and some credentialing, such as OSHA 10. It created a seventh week with two instructors of transit-related training specifically to instruct this additional week. Because of the delay, Community Works staff recruited from other pre-apprenticeship training sessions for the extra week, and participants were afforded the work placement. Placements in transit-related positions were reportedly small; most individuals from Community Works were placed with city and town Departments of Public Works (DPW), which meant filling potholes, performing roadway labor, and other similar activities. The cities and towns in which they were placed were aware that they were in a training program and there to gain work experience and strived to expose them to as many skills as possible. Participants were offered full-time employment after the paid work experience. Support and case management was carried out by CareerPoint and FutureWorks, part of a large networks of partners on which the pre-apprenticeship programs can call to address barriers.

**Figure 8-1**  
MassDOT  
Construction Career  
Development  
Participants



Building Pathways Boston and Worcester have an established recruiting and selection process. Those interested are pre-screened and interviewed and the best candidates are asked to take several baseline tests to determine if they have the skills and aptitude necessary to successfully complete the pre-apprenticeship training. Successful candidates move to the final step in the selection process, which is an interview before a committee of industry representatives, facilitated by the Executive Director and Project Coordinator. The committee makes the final selection of participants. The six-week training cycle includes employability and interpersonal skills training, résumé writing and interviewing

skills, teamwork, workplace problem-solving, effective communication, financial literacy, and other life skills. The curriculum also includes sessions in the apprenticeship model, workplace safety, construction math, construction tools, blueprint reading, labor history, the types and components of a construction project, substance abuse, industry infrastructure, workers' rights, mock interviews, shop classes, and industry field trips.

Building Pathways Boston and Worcester both incorporated topics specific to working in the transportation industry, including work zone safety, construction math, blueprints, tools of the trade, flagger certification, etc. They added four employer partners that were contractors in horizontal construction who talked about training, projects, etc. Classes ran Monday through Friday, from 7:00 AM to 3:30 PM to mirror a typical construction work day. In addition to classroom instruction, participants engaged in hands-on experiences in a shop environment that mimicked actual construction activities. Building Pathways (and all the other programs) rely on a network of partners to provide the support services that address barriers to employment. For placement, Building Pathways staff focused on getting participants into registered apprenticeship programs rather than job placement. (The MassDOT representative noted that this does not always equate to employment, as apprentices can "sit the bench" if there are no projects that require workers.)

Youth Build's Pre-Apprentice Program is an intensive 12-week experience designed for high school graduates and those on track to complete high school. The program, in partnership with Roxbury Community College, used an assessment center to assess and screen its applicants to ensure greater success outcomes. One of its corporate partners, Shawmut Design and Construction, agreed to participate in the pre-apprentice program by providing OSHA 10. In addition, Youth Build of Boston's key partners—Carpenters' Union, Shawmut Design and Construction, Skanska Construction, and Suffolk Construction—reviewed the curriculum to ensure that the program offers industry-driven certifications, skills, and knowledge. The program consisted of three phases. In the first, students earned certifications and credentials. In the second, participants got hands-on experience at a real work site. In the third, students completed a life skills assessment and received training on life skills, timeliness, and work readiness skills. Students who have yet to secure employment continue in a paid Youth Build work site placement, hone skills, and actively seek permanent employment with the support of an assigned staff person. The program continues to support graduates beyond this period until they find jobs.

## Outcomes

Although the partners in the Construction Career Development project set out a number of areas they planned to measure (e.g., percentage of women and minorities served, number receiving training, number earning credentials, etc.),

they set specific goals only regarding the number of people served. Partners also tended to report on the number that completed training and the number placed into apprenticeships or employment. Goals and achievements are summarized in Table 8-1.

<b>Table 8-1</b>	<b>Goal Description</b>	<b>Goal</b>	<b>Achieved</b>
<i>MassDOT Construction Career Development – Goal and Actual</i>	Number enrolled	73	163 (223%)
	Training cycles enhanced *	2	3 (150%)
	Number completing training	73	132 (181%)
	Number placed (employee/apprentice)	-	48

\*Community Works training cycles to enhance, not number of participants to serve.

Overall, for the metrics reported to date, the project succeeded in meeting its goals. Community Works conducted the equivalent of three cycle enhancements instead of two. The other three programs exceeded their recruitment and completion targets (20, 20, and 33 participants for the Building Pathways and Youth Build programs, respectively). The two Building Pathways programs recruited 29 and 23 participants, and Youth Build recruited 92. In terms of those who completed training, Community Works graduated 12, 26 completed the Building Pathways program in Boston and 17 in Worcester, and Youth Build had 77 graduates. Community Works placed 12, Building Pathways Boston had 13 accepted into apprenticeships (with 2 more waiting), Worcester had 16 enter apprenticeship, and Youth Build placed 36.

It was noted that Building Pathways Worcester had a few people that passed drug tests initially but failed them later in the program. With the statewide legalization of marijuana for recreational use, this was a potential growing issue, as it was legal but still not acceptable for the apprenticeship programs.

## Budget and Matching Funds

The ITWDP provided \$744,436 in Federal funds (46% of the total). A MassDOT representative returned roughly \$48,000 in unexpended funds, for two reasons. First, Building Pathways Boston thought it would hire an administrative person but did not. Second, Community Works did not need to provide the expected stipend to DPW placements, as they were paid salaries instead. Each partner was required to at least match the funds received, and MassDOT contributed an extra \$100,000. It estimated providing roughly \$870,000 in matching funds. The project was completed in February 2018.

## Impact

The MassDOT representative suggested three key impacts of the project. First, the project created a transportation-specific portion of the pre-apprenticeship training for four major partner programs. This section of these programs did not

exist in the past, and the curriculum can be called upon in the future. Second, the project began to have a positive impact on construction employers in the area working on transportation infrastructure; they added more employer partners than before. Requiring the four participating partners to have transportation construction employer relationships built trust, as employers were able to meet participants. Some performed mock interviews during the training, so contractors gained confidence that the training was consistent with their minimum entrant requirements. A third impact was that MassDOT required 15% female and 16% minority labor on projects, but contractors claimed to be unable to find people to fill those positions. MassDOT required contractors to contact the partner programs to identify labor, so the project helped to get more minorities and women involved in building construction. For example, Building Pathways Boston served 26 minorities, with ten 10 female participants, most of whom graduated. The programs are becoming committed to advancing opportunities for minorities and women.

## Lessons Learned and Recommendations

Key lessons learned and advice to those wishing to implement a project similar to MassDOT's include the following:

- Collaborate early with employer partners. The more buy-in you get from those putting people to work, the better the program will be run.
- Partner with established programs. The four partners in this program were established programs, already approved by the DOL, already with union relationships, etc. They could be counted on to run their portion of the program effectively, and when delays caused issues, they had a big enough pool of former participants upon which to draw to meet their target numbers.
- Not specific to this program, but those examining this type of program should be aware that being accepted into an apprenticeship program is not equivalent to being employed. The apprentices may or may not have work, depending on the projects at the time, nor the number of people required by the union to fill the positions. Often, they must wait to see what type of jobs materialize, as when projects are awarded they come with inflated numbers of how many construction jobs will be created, but these do not necessarily materialize.

## Conclusion and Further Investment Recommendation

Overall, MassDOT's Construction Career Development project met or exceeded its goals for enrollment and placement. Through the project, 163 people were served, 132 people completed pre-apprenticeship training with

portions specifically to help them learn about transportation construction, and 48 were placed in employment.

The use of established apprenticeship programs helped this project complete the training despite delays that caused the timing to be misaligned with training cycles. They also had established means of supporting participants during the training given pre-existing relationships with service provider agencies.

This project is worthy of replication for areas in which transportation construction apprentices and labor are in short supply. However, some study is warranted to determine if transportation-specific training as part of pre-apprenticeship programs is beneficial to the participants seeking employment in transportation construction and if the construction apprenticeship programs found these students better prepared. Some of this could be affected by altering the duration, topics, and intensity of the transportation construction-related portion, but knowing whether the week of training provided to the participants in this study was sufficient (or overkill) would help adjust the program to the appropriate levels.

## Success Stories

**Esmeralda** is a graduate of the 2017 cycle of the Worcester Building Pathways Pre-Apprenticeship Training Program. Prior to starting training, she was working as a Certified Nursing Assistant and wanted to find a career that would offer her a living wage. She had previously applied for apprenticeship in the building trades but was denied due to low entrance exam scores.

During her pre-apprenticeship training, Esmeralda was very motivated and enthusiastic about building a new career for herself. Through her strong focus on attendance and engagement, she was able to learn about a variety of trades and improve her foundation of skills. When asked about training, she stated, “I loved it. We got a lot of information I thought was very helpful for the near future. The best part was all the hands-on work we did!”

Following the program, Esmeralda was accepted into two apprenticeship programs and chose to work with the Local 96 International Brotherhood of Electrical Workers. At the close of the project, she was working as a first-year electrical apprentice on a project at with Coghlin Electrical Contractors, Inc., and was excited about the opportunity to continue learning her trade while she earns a living.

**Carl** is a graduate of the 2017 cycle of the Worcester Building Pathways Pre-Apprenticeship Training Program. Although he always had a goal of working as a laborer, he had been unsuccessful with his previous applications for laborer positions because of his lack of experience.

Throughout the training, Carl improved his understanding of the construction industry and was able to visit the Laborers Apprenticeship Training Center to show them his strong work ethic and commitment to learning his craft. He was also able to network with local employer partners, who were quickly impressed with his team player attitude and dependability.

Following training, Carl was accepted to the Laborers Local 243 and began work as first-year Laborer apprentice on a local DOT bridge project with SPS New England. He took advantage of additional training offered through the Laborers Training Center and earned certifications in scaffold building, hot works training, silica awareness, and OSHA 30 during his first six months of work. He is grateful to have participated in the program and has started speaking to high school students who visit the Laborers Apprenticeship Training Center to tell them about his experience and spread more awareness about what it means to be a laborer.

# International Transportation Learning Center (ITLC) – Integrating Career Pathways in Public Transportation: Rail Car Maintenance and Beyond

## Background and Problem Addressed

The International Transportation Learning Center (ITLC) is a non-profit organization headquartered in Silver Spring, Maryland, dedicated to improving public transportation at the national level and within communities. ITLC builds labor-management training partnerships that improve organizational performance, expand workforce knowledge, skills, and abilities, and promote career advancement. It is a national organization that focuses on the frontline workforce in public transportation and transportation in general and is the only organization funded by FTA, the DOL, and the Transit Cooperative Research Program (TCRP) to develop and support technical training partnerships for transportation's front-line work force.

The public transportation industry is expected to require 500,000 employees over the coming decade due to retirements, growth, and turnover. Of those, more than 90%, are expected to be in frontline operations and maintenance occupations that do not require a four-year degree but do require extensive technical training after hiring. Public transportation jobs can be parts of ladders of opportunity for inner city and rural populations that suffer from high unemployment and poverty rates and are in dire need of job security and family sustaining wages.

Railcar agencies are bigger than bus agencies, but they lack capacity to develop good training for maintenance programs. Establishing a training and qualifications framework for railcar technicians in public transit was an important first step. The consortium established a national framework and curriculum with 3,000+ learning objectives, but instructors, training managers, and union representatives noted that local agencies did not have the manpower to develop full courseware from these materials.

## Proposed Workforce Solution

The partner agencies in this project were expected to expand opportunities for these under-represented populations through pre-employment and post-

employment education and training for quality transit careers. Most high-demand public transportation jobs pay well above the 2014 national median wage of \$35,540 and provide excellent benefits and long-term career opportunities.

Staffed and organized by the ITLC, this project would operate through two major initiatives—a Partnership for Transit Core Competencies Curriculum (TC3 Partnership) and a Rail Car Training Consortium (RCTC). The Partnership would develop TC3, a pre-employment curriculum, based on adopted national training standards and deliver the curriculum to target populations. The development and piloting of the curriculum would integrate interactive classroom, hands-on, and field-based modules that, along with on-site mentoring, would constitute the pilot delivery models that can be used at agencies of all sizes throughout the industry nationally.

The RCTC would develop and implement quality curriculum, courseware, and on-the-job learning modules to complete a national system of rail car maintenance training. Core segments of these materials would be adapted and used in the development of the TC3 pre-employment curriculum. Developing a training curriculum, courseware, train-the-trainer, and on-the-job learning modules and preparing for registered apprenticeships for rail car technicians through the RCTC would not only help provide safe and reliable service but would also develop training capacity for the industry to effectively recruit and retain prospective new employees while ensuring that incumbent workers keep current on technological advances. In addition, the Partnership and Consortium would work with the National College Credit Recommendation Service (NCCRS) to assess initial segments of the curriculum created for college credit.

## Partnerships

ITLC, the lead agency on the project, is a collaborative institute comprising transit management and labor, engaged through unique innovative partnerships involving stakeholders from national organizations and more than 40 transit systems. It is the only national organization in the transit industry dedicated to frontline workforce development. The ITLC's program of standards-based workforce development partnerships is built on engagement of transit's primary stakeholders for frontline workforce development—the agencies that employ transit workers and the unions that represent more than 90% of the frontline transit workers. ITLC managed the project, acted as the fiscal agent, and served as facilitators, researchers, and subject matter experts.

The Amalgamated Transit Union (ATU), the largest transit labor organization in North America, supported and encouraged its locals to participate in development of rail car training materials and in development and piloting of TC3.

The American Federation of Teachers (AFT) and Shanker Institute, organizations dedicated to quality education for K–12 students, provided expertise on career and technical education high schools and facilitate project connections with high schools and teachers in TC3 pilot locations.

The American Public Transportation Association (APTA), an international organization representing the public transportation industry, supported the development of the TC3 curriculum and rail-car courseware, assisted with agency cash match collection for the Rail Car Consortium, and disseminated the products and best practices from this project to the public transportation industry through its national conferences and active committees, including technical and policy modal committees.

The Community Transportation Association of America (CTAA), an organization dedicated to small and rural transportation agencies, participated in the development of the TC3 curriculum and provide TC3 access to rural or tribal area locations.

The Corps Network is a national youth development program that provides participants with job training, education opportunities, and other critical skills and support. For this project, the Corps Network assisted TLC with TC3 development, identified and supported potential local pilots (through its affiliated Denver Mile High Youth Corps), and played a key role in ongoing outreach to targeted out-of-school youth groups in public transportation's communities.

The National College Credit Recommendation Service, a nationally-recognized organization that evaluates training and education programs outside of the traditional college setting and translates them into college credit equivalencies, assessed courses produced through the TC3 Partnership and Rail Car Consortium for college credit.

In development of TC3, the ITLC expected to consult with the Office of Career and Technical and Adult Education (OCTAE) in the US Department of Education (DOE), participating public transportation agencies, and local unions. For the development of the TC3 curriculum, the TC3 Partnership would draw subject matter experts from public transportation agencies and unions based on their participation in the then-ongoing Bus Maintenance Training Committee (coordinated by APTA), the Elevator-Escalator Training Consortium, the Signals Training Consortium, and the Rail Car Consortium (coordinated by the Transportation Learning Center). At least one agency would be selected as the pilot location of the TC3 curriculum. ITLC expected national partners who are involved in education and training to contribute and other agencies to volunteer for pilots once the development of the curriculum was under way.

The Rail Car Consortium included a wide range of rail agencies and their unions, including those in Charlotte, Denver, Cleveland, Maryland, Massachusetts, New Jersey, San Diego, San Mateo, SE Pennsylvania, San Francisco, and Utah. As with similar prior efforts, agencies would contribute financially to the Consortium based on their rail ridership, with semi-annual contributions of \$5,000 (small), \$10,000 (medium), and \$15,000 (large). All member organizations participated in the Consortium's top-level Technical Governance Committee.

Of the initial partners, 11 participated only in TC3 (e.g., San Mateo), but additional members continued to join the Consortium throughout the project, growing it to 16 members, with the most recent being Sacramento and Minneapolis with other potential members (New York, Miami Dade, and MARTA in Atlanta).

## Project Implementation

### Recruiting into the Consortium

ITLC members and current Consortium members attended five to ten rail-related APTA events, and the ITLC Board of Directors helped recruit CEOs at the APTA CEO Retreat. Three Board members spoke from their own experience and encouraged others to join. Experience suggested that deploying Board members to talk personally to others was the best advertising.

### Needs Analysis, Environmental Scan, and Development Plan

The project began with a needs analysis to identify priority-training areas for member agencies. Prior competency collection efforts had identified 11 subsystems for railcar maintenance. For each, there were learning objectives, leading to a total of more than 3,000 objectives. It was important to identify the training priorities, so the consortium conducted a survey of Consortium members to determine agency needs and rank course priorities and to identify agency existing materials. The ITLC combined materials to form a library upon which to draw when related courses were developed. The needs analysis helped to identify the types of equipment agencies were using, including original equipment manufacturers (OEMs) for railcar components and sub-components. Some OEMs were more willing to cooperate than others, and many would not allow the Consortium to use their proprietary materials.

The project team also compared and consolidated basic foundational competencies across multiple technical occupations and identified additional subject areas to orient students for careers in public transportation. A scan was undertaken to determine the relevance of 100-level curricula and courseware materials that were or are being developed.

With this information, the project team worked with the TC3 Partnership to create a curriculum and courseware development plan that would include recommended courses, subject areas covered by each course, existing materials that can be adapted, gaps, areas for classroom training material or hands-on module development, and a timeline for development.

### Training Materials and Courseware Development

The courseware and materials were developed by small teams comprising labor and management using a modular approach, with each developing a module of the course. Rail car subject matter experts worked together with ITLC's instructional system designers to prepare classroom-ready materials that could be taught by technical instructors at public transportation locations. For each course, the teams developed a range of materials such as curriculum outline resources to support existing textbooks for foundational courses and newly-developed course books that are the equivalent of a textbook. Subject matter expert committees reviewed the existing standards through a rigorous instructional system design process and developed the materials needed to support and expand on the learning objectives.

### Train-the-Trainer

The courseware development teams developed and delivered courseware to train instructors and mentors within the organizations who would carry out pilots on broad training concepts and the specific layout and content of TC3 and courseware developed through the Rail Car Consortium. ITLC had a train-the-trainer course that was customized with railcar material. It held one train-the-trainer event and paid participant expenses to attend. Seven agencies sent instructors.

BART and Valley Transit of San Jose provided eight hours of training on mentoring for the project and sent an experienced instructor to provide the training. Courses developed include:

- Rail Vehicle Sub-System Primer
- Introduction and Overview to APS and Battery Systems
- Inspection and Maintenance of APS and Battery Systems
- Troubleshooting APS and Battery Systems
- Introduction and Overview of HVAC Systems
- Inspection and Maintenance of HVAC Systems
- Troubleshooting HVAC Systems

### Pilot TC3 and Rail Car Courseware

ITLC representatives note that piloting the courses is not easy, as it often requires changing the established routine regarding how training is conducted

and requires a lot of instructor preparation. The courses have classroom and hands-on components that have to be learned, and instructors must set up the equipment and build in faults according to the specific course design for the exercise. The project team conducted five rounds of pilot testing in four transit locations—Charlotte Area Transit System (CATS), Massachusetts Bay Transit Authority (MBTA), Greater Cleveland Regional Transit Authority (GCRTA), and Chicago Transit Authority (CTA)—with pilots spread across topic areas. For each pilot test, ITLC sent an Instructional Systems Design (ISD) expert to observe and identify ways to improve. The ISD expert observed how students react to exercises, explanations of concepts, etc., and determined whether the order of presentation is appropriate or leads to confusion. Afterward, ISD experts consulted with instructors to discuss intended changes to the course to make it more robust. For each pilot test, there are knowledge checks and quizzes throughout the course to assess learning as well as pre-assessments and similar post-assessments.

### Credits for TC3 and Consortia Curriculum

The TC3 Partnership and Rail Car Consortium selected courses to be assessed by the National College Credit Recommendation Service (NCCRS) for college-level academic credit. NCCRS conducted a sight visit in January 2018 with two third-party evaluators who examined the curriculum, courseware, assessment results, feedback, records, etc., for 11 courses and granted a total of six credits, with each credit equivalent to 15 hours of instruction. NCCRS will return in 18 months to assess all courses.

The ITLC also coordinated efforts for obtaining college credit with the DOL's Registered Apprenticeship College Consortium (RACC) and put top priority on assessing training in registered apprenticeship programs. At the time the RACC started, there was a push for apprenticeships across industries. ITLC was a grantee under DOL's American Apprenticeship Initiative, and railcar was an occupation included in that effort. The team was able to leverage the two programs together, and at least a half day of the development was about Registered Apprenticeships. State apprenticeship registration personnel were invited to talk to the railcar experts to inform them about apprenticeships. ITLC assisted with registration, worked out labor-management agreements, etc. To date, one railcar program has been registered at GCRTA, and others are in the works.

### Dissemination

To disseminate TC3 and training, the project team sent a representative of the RACC to every APTA workforce development meeting to make a presentation, including the Workforce Development Workshop in Chicago. The training program also is hosted on [TransitTraining.net](#), where it is available to consortium members (hosted by an ITLC vendor). The consortium has produced three *Making Headway* newsletters and will have a promotional video when it is all complete.

## Outcomes

Specific performance metrics were set out by ITLC in the proposal specific to the Rail Car Maintenance and Beyond project and are summarized in Table 9-1.

**Table 9-1**

*ITLC Rail Car Maintenance Outcomes – Goal and Actual*

Goal Description	Goal	Achieved
Locations piloting TC3	1	3 (100%)
Students completing TC3 pilot	8	90 (1125%)
Number of rail car courses developed	10	17 (170%)
Number of rail car courses piloted	8	9 (113%)
Number of workers trained	40	60 (150%)
Railcar qualification certificates earned	40	40+
Learning gains across subject areas	Positive gains	40%*
Create rail car apprenticeship programs	2**	2 (100%)
Courses assessed for college credits	8	11

\*Assessed with experienced workers.

\*\*One rail car apprenticeship already existed.

FTA funding paid for two years of a four-year effort, during which time ITLC and the project team surpassed the goals. A TC3 curriculum and materials were created and were pilot tested three times with 90 people, and 17 rail car courses were developed, seven more than proposed. Nine courses across four locations were piloted, one more than expected, resulting in more people being trained and more certifications. In addition, the pilot tests produced roughly 40% learning gains, despite the fact that they were being tested on experienced workers (as opposed to people new to rail car). ITLC also had 11 courses assessed for college credit, three more than proposed. One new apprenticeship was established, one member already had an apprenticeship, and several more are in process.

## Budget and Matching

The ITWDP provided \$750,000 in Federal funds to ITLC for this project (50% of the total), representing a 15% reduction in the amount requested, which was offset by reducing the number of meetings attended. Matching funds were from agencies that joined the consortium and from in-kind contributions of fully-loaded salaries for subject matter experts and for participants to attend meetings, webinars, pilot training, etc. In general, ITLC reported that budget expenditures went according to plan. The vast majority of funds were budgeted for salaries, benefits, contractual help, and materials development. This project was completed in November 2018.

## Impact

Representatives from ITLC noted several impacts of this project. FTA and the partner agencies contributed a small share of what they are getting in return; for example, each agency shares 2–3% cost but has access to the final products—high-quality materials from a proven method that draws from the knowledge of subject matter experts from 16 or more agencies on a variety of topics (light rail, heavy rail, OEMs, etc.), available on transittraining.net. An added benefit is a national platform on which to discuss the challenges of railcar maintenance and learn from each other. The project also leads to cross-pollination throughout the industry; the “Making Connections” conference hosted by ITLC brought together all consortia and committees for a chance to share ideas.

ITLC noted the following added value for the industry:

- Addresses critical skill gap from retirements and expansion of rail service
- Leverages expertise from 16 different transit rail location
- Updates with new technologies
- Proven track record of cost savings from in-house maintenance work
- Decreased liability
- Improved in-house training capacity with train-the-trainer
- Addresses lack of training at smaller locations
- Courseware assessed for college credit
- Forum for frontline worker/trainer networking

## Lessons Learned and Recommendations

As with other similar training consortia conducted by ITLC, representatives noted that representatives from agencies did not know where to begin, as each property had different equipment and was concerned about developing standardized national courseware. ITLC staff assisted them in finding commonalities across equipment, which was especially true for 100-level (fundamentals) courses that covered basic theory, safety, HVAC, etc.

## Conclusion and Further Investment Recommendation

- The project met or exceeded the goals it set. ITLC and the project team produced rigorously- developed and tested training courses covering a topic area of industry-wide need. The training was developed with input from experts drawing from their experience with 16 transit/transportation agencies, and the project has helped encourage a pipeline into the industry by creating a pre-apprenticeship curriculum and material and helping to establish rail car maintenance apprenticeships.

- As is typical for a project focused on course development (as opposed to delivery), the total number of people trained and certifications issued is modest compared to other projects. However, it is important to consider that the high-quality, rigorous materials developed by this project are now available to all personnel at all 16 agencies, and trainers from seven have already taken a train-the-trainer course. This means the project ultimately can impact thousands of workers across the transit industry, and this number expands with every transit property that joins the consortium.
- The project's expected impact is consistent with the ITWDP goals to promote creative ways to bring more workers into transit and help prepare them to fill the large numbers of expected positions on the front line of the transit industry.

SECTION  
**10**

# International Transportation Learning Center (ITLC) – Signaling Career Pathways: Putting Women and Veterans on Track and Advancing Signals Technicians

## Background and Problem Addressed

The International Transportation Learning Center (ITLC) is a non-profit organization headquartered in Silver Spring, Maryland, that is dedicated to improving public transportation at the national level and within communities. ITLC builds labor-management training partnerships that improve organizational performance, expand workforce knowledge, skills and abilities, and promote career advancement. It is a national organization that focuses on the frontline workforce in public transportation and transportation in general and is the only organization funded by FTA, the DOL, and the Transit Cooperative Research Program (TCRP) to develop and support technical training partnerships for transportation's front-line work force.

Signals technology is safety-critical for all rail operations. Failures of rail signal systems occur rarely, but when they do, tragic outcomes can follow. Rapid changes in technology and high levels of retirements make it difficult for rail properties and their skilled workers to keep pace and adapt. Training by OEMs on newly-procured equipment often does not integrate well with existing local agency training; transit agencies face the problem of needing to diagnose and repair multiple generations of signals systems from an array of vendors both past and present.

In addition, the pending implementation of Positive Train Control (PTC) poses significant challenges around procuring and adapting to a new, highly-automated, computer-controlled technology. Most agencies have little or no training capacity for programmable logic-controlled (PLC) train control field units using touch screens installed in train control rooms to troubleshoot systems from a central office or from local human-machine interfaces.

Public transportation, with 63% of the workforce above age 45, and railroading, with 57%, is facing very large retirements in the near future. The industry's need to fill these high-skill, high-wage jobs offers great opportunities for veterans, including minorities and women, to fill these positions.

## Proposed Workforce Solution

The Signals Career Pathway (SCP) project proposed an industry-wide approach to tap into pre-existing technical skills from military training to ensure a high-quality, consistent, and cost-effective solution for the industry. This project would work with the existing Signals Training Consortium on the second phase of a project to complete the development of a full suite of signals technician courseware for use in classroom and on-the-job training. SCP would create a Veterans Task Force to develop a Military-Public Transportation Skills Crosswalk, a translation of military occupational skills into signals technical skills based on the industry's adopted National Signals Training Standards. It would create linkages with public transportation agencies and veterans' organizations to assist with recruitment efforts. Additional activities would involve agency outreach and recruitment and retention of women in non-traditional public transportation careers, particularly signals maintenance.

## Partnerships

ITLC, the lead agency on the project, is a collaborative institute comprising transit management and labor, engaged through unique innovative partnerships involving stakeholders from national organizations and more than 40 transit systems. It is the only national organization in the transit industry dedicated to frontline workforce development whose program of standards-based workforce development partnerships is built on engagement of transit's primary stakeholders for frontline workforce development—agencies that employ transit workers and unions that represent more than 90% of frontline transit workers. ITLC managed the project, acted as the fiscal agent, and served as facilitators, researchers, and subject matter experts.

The AFL-CIO Union Veterans Council, a national organization representing the interests of union veterans, helped make connections with veterans' organizations and other similar programs. ATU encouraged its locals to participate in the development of signals training materials and outreach to veterans.

APTA assisted with agency cash match collection for the Signals Consortium and disseminated the products and best practices from this project to the public transportation industry through its national conferences and active committee structures.

The Brotherhood of Railroad Signalmen (BRS), an international union representing more than 10,000 signal maintainers across North America, was the union lead for the Veterans Task Force.

The National Center for Women's Employment Equity of Wider Opportunities for Women provided a variety of resources for transit agencies and local job

training programs on practices to ensure that agency materials are gender-neutral, targeted, and sensitive.

Participating public transportation agencies and local unions worked together with veterans' organizations, public transportation agencies, and labor unions, and community organizations and created a Veterans Task Force to develop the military crosswalk for transit signals occupations. BRS agreed to be the union lead on this effort based on its previous experience with veteran recruitment efforts.

The Consortium also included a wide range of rail agencies and their unions. Each location participating in the Consortium designated two lead technically-knowledgeable subject matter experts, one from signals maintenance training or supervision, and one from the front-line workforce. Local area partners included Amtrak, Los Angeles County Metro Port Authority Transit Corporation, BART, Maryland Transit Administration, Sacramento Regional Transit District, Capital Metro, Massachusetts Bay Transportation Authority, San Diego Metropolitan Transit System, Charlotte Area Transit System, Metra, Southeastern Pennsylvania Transit Authority, Denver Regional Transportation District, Metro North Railroad, TriMet, Greater Cleveland Regional Transit Authority, Metro Transit (MN), Keolis Niagara Frontier Transportation Authority, Long Island Rail Road, and New Jersey Transit. Local Union 103 in Boston also participated that is a feeder for Signals Technician positions. Three technicians from the T (Boston's subway) that were part of the Consortium retired and went to teach at Local 103.

As the project was forming, the National Center for Women's Employment Equity of Wider Opportunities for Women went out of business. ITLC then switched to Chicago Women in the Trades (CWT), which had expertise in construction. The body of work and some people were from the defunct National Center, which prepared a Women's Toolkit and presented it at the signals consortium.

ITLC representatives did not report specific problems forming the partnerships but noted that initially there was skepticism, as signals systems range from brand new systems and light rail to systems from the 19th century. Initially, there was concern that there was no commonality; however, after work began, participants saw the same kinds of problems across light, commuter, subway, and heavy rail; all have a signaling skills problem. Some agencies, however, remained reluctant to join because they believe their problems are unique, but ITLC found this not to be the case.

The project team communicated with meetings and webinars and via e-mail or phone calls as needed.

## Project Implementation

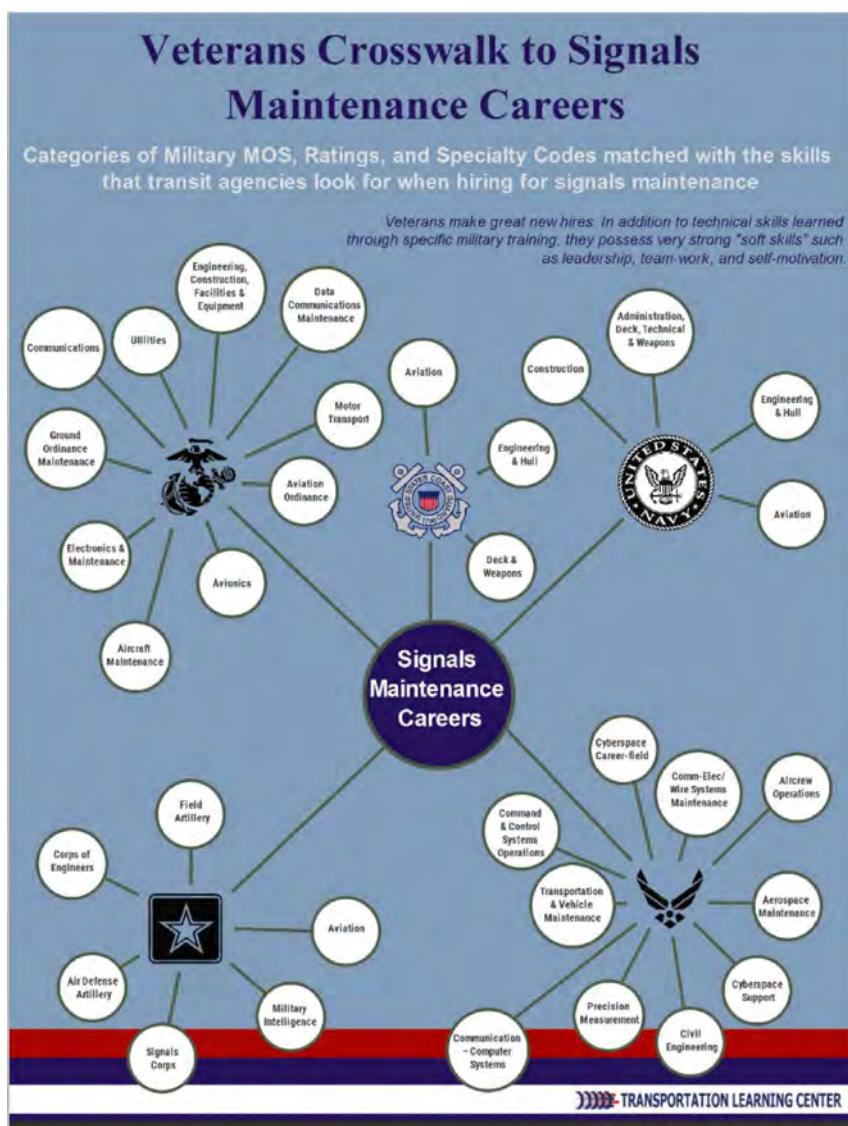
### Veterans Outreach and Skills Guide

The Veterans Outreach and Skills Guide includes a skills crosswalk, interview sheets that will assist recruiters in effectively asking questions to better assess veterans' skills for public transportation, and additional resources. A Task Force coordinated dissemination of information regarding public transportation career pathways.

The fact sheet shown Figure 10-1 is available on ITLC's website under Publications and Reports. The Transportation Skills Crosswalk required extensive research on military occupational skills sets and comparing them systematically to public transportation agency skill needs based on the National Training Standards for Signals Technicians.

**Figure 10-1**

Veterans Skills  
Crosswalk Fact Sheet



ITLC used the Military Occupational Specialty (MOS) codes for branches of military, examined the skills each job title encompassed, and matched them to signaling careers. It also created a group of Signals Technician subject matter experts, trainers most of whom were veterans and talked about how to make the crosswalk work better. They also invited DOL veterans to participate.

The result of these efforts was a crosswalk that can be used to search a signals job title to find the MOS codes in branches of the military that cover those skills, or veterans can enter MOS codes and see how many skills they already have that are needed for signals positions. In its current format, the crosswalk is an MS Excel spreadsheet, but the goal is to make it an online tool.

Subject matter experts and ITLC staff identified additional resources, providing links to relevant information. The Crosswalk was presented to a large group at a Signals Consortium meeting in Portland that included mostly veterans or interested stakeholders; it was also presented at meetings of the APTA Workforce Development Committee and publicized via printed newsletters, online newsletters, and conference presentations. ITLC is currently hosting the Crosswalk but would like to get the DOD involved and continue to grow it.

### Toolkit for Recruiting Women

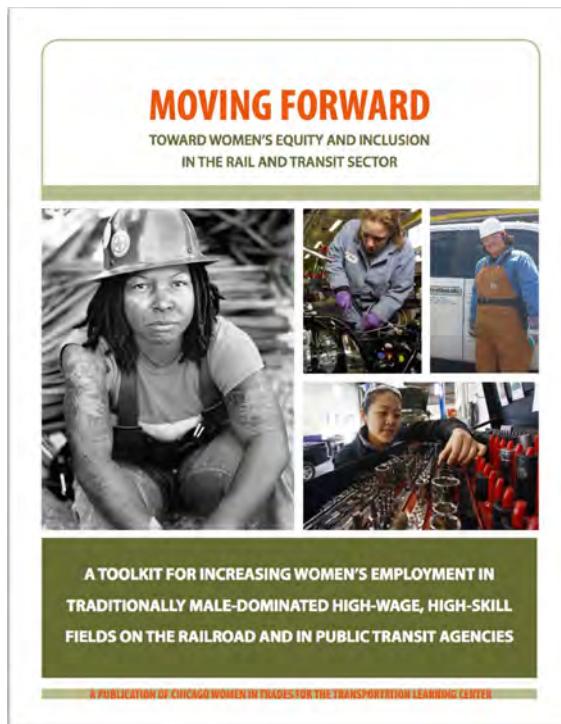
Working with CWT, the project team produced “Moving Forward, A Toolkit for Increasing Women’s Employment in Traditionally Male-Dominated High-Wage Fields on the Railroad and in Public Transit Agencies.” CWT had a great deal of experience in the construction trades, and it and the team adapted information from construction trades to transportation, also drawing on knowledge of women from transit properties in Portland, Denver, and Boston for input. Women also presented at conferences and consortia to talk about gender-related challenges in the field.

The toolkit was presented at ITLC’s “Making Connections” conference, at which addressing the needs of women was a topic. APTA publicizes the toolkit at rail and bus conferences and encourages human resources personnel to try to use it. Some agencies, such as the Southeastern Pennsylvania Transportation Authority (SEPTA), are trying to promote more women in technical trades, and a trainer there is working with ITLC on how to integrate toolkit content in that effort. ITLC noted that it also raises gender awareness internally in its own trainings, for example, using “she” instead of neutral language and including women in photographs.

Available online, the toolkit is meant to be self-guided, but ITLC notes that it would be more effective if technical assistance was available. ITLC is helping SEPTA use the toolkit to improve the promotion of women in technical trades.

**Figure 10-2**

*ITLC Toolkit for Women's Equity*



### Needs Analysis

ITLC staff took the information previously obtained through a needs analysis survey (during Phase 1 of the Signals Consortium's work) and produced a synthesis report on the current and future needs of signals technicians within the transit industry. The analysis covers 20–30 topics ranked and prioritized for members. This report was disseminated to partner locations, the Veterans Task Force, and the industry at large.

### Signals Courseware Development

The project team continued the Consortium's efforts to prepare classroom-ready materials that can be taught by technical instructors at public transportation locations. For each course, the team prepared materials, curriculum outline resources to support existing textbooks for foundational courses, and newly-developed course books that are the equivalent of a textbook. To develop these materials, small groups or subject matter expert committees reviewed the existing standards through a rigorous ISD process led by an ITLC staff member and developed the materials needed to support and expand the learning objectives. The team has completed preparation for all 25 courses in the original plan. Courses were divided by sub-system, with three levels of complexity (100, 200, 300), and are available on TransitTraining.net, ITLC's password-protected website hosted by an outside webhosting firm. Courses the Consortium developed include:

- Course 100: Orientation
- Course 101: Introduction and Overview to Track Circuits
- Course 102: Introduction and Overview to Switches and Derails
- Course 103: Introduction and Overview to Train Stops
- Course 104: Introduction and Overview to Highway Grade Crossings
- Course 105: Introduction and Overview to Cab and Wayside Signaling
- Course 106: Introduction and Overview to Interlockings
- Course 201: Inspection and Maintenance of Track Circuits
- Course 202: Inspection and Maintenance of Switches and Derails
- Course 203: Inspection and Maintenance of Train Stops
- Course 204: Inspection and Maintenance of Highway Grade Crossings
- Course 301: Troubleshooting Track Circuits
- Course 302: Troubleshooting Switches and Derails
- Course 303: Troubleshooting Train Stops
- Course 304: Troubleshooting Highway Grade Crossings

Courses were developed based on industry-accepted 2010 APTA standards, but the project team updated the learning objectives and materials and resubmitted them to APTA.

### Pilot Courseware

Courses were pilot-tested as they were completed. The project was able to do more pilot testing of courses than in the initial phase, as they had more courses and more time to focus on testing. As before, ITLC instructional design experts observed the pilot tests and sought to identify areas to improve. Course evaluations were provided, and suggestions were incorporated into final versions of the courseware. The project team piloted just over 50% of the courses. Pilot locations were recruited by asking for volunteers at the in-person Consortium meetings. Recruitment to pilot test has been added to orientation for new consortium agencies.

### Train-the-Trainer

ITLC staff worked with the courseware development team to develop courseware to train signal maintenance trainers and mentors on broader training concepts and specifically on the layout of the newly-developed materials. The train-the-trainer courses were added because it was determined that either good technicians were asked to be a trainer or a person who is a teacher but does not know the technical material was asked. These mismatches lead to “death by PowerPoint.”

Each partner had access to a week-long train-the-trainer program held in Cleveland to teach them about adult learning and teaching techniques using the courseware that had been developed, which led to better trainers. Classes are limited to eight to ten people so participants can pair off and prepare a part of the course to deliver. ITLC also added training customization. As pilot-test courses, ITLC began recording instructional videos tied to learning objectives and self-learning to allow streamlining the instructor guides.

### Supportive Resources for Frontline Training

A natural by-product of the development process was generating a national framework for apprenticeship. The Consortium drafted the framework for a competency-based apprenticeship, which was submitted to the DOL as the foundation for registered apprenticeship in signals training in public transportation. DOL approved the apprenticeship in October 2017. The project provided resources to help implement it.

## Outcomes

ITLC's proposal established a number of metrics for evaluation; Table 10-1 summarizes the goals and outcomes.

**Table 10-1**

*ITLC Signals Consortium Project Outcomes – Goal and Actual*

Goal Description	Goal	Achieved
Agencies receiving Veteran Skills Guide	10	19 (190%)
Agencies receiving Women's Toolkits	10	18 (180%)
Military Crosswalk completed	1	1 (100%)
Number of Signals courses completed	13	26 (200%)
Knowledge gains	25%	80% (+55%)
Signals courseware pilots completed	13	13 (100%)
Signal technicians receiving training	50	65 (130%)

ITLC created the Veteran's Skill Guide, which includes a crosswalk between signals and military occupations. This is available on its website and was presented at its conference, which was attended by most project partners.

The toolkit for improving equity for women in transit was completed and distributed to more than the target number of agencies. Funding for the Consortium enabled ITLC and Signals Consortium members to complete all 26 of the intended courses (although some were completed in Phase I of the project). Half of the courses were pilot tested, reaching the intended 13 courses tested. Knowledge gains proved to be well over the (relatively low) goal set. Pilot tests generally included five to six people, reaching 130% of the goal. These numbers do not appear to include the train-the-trainer numbers, which would be additional people trained by the project.

## Budget and Matching Funds

The ITWDP provided \$574,182 in Federal funds (50% of total project funds). ITLC and partners provided in-kind contributions totaling \$574,182 in subject matter expert time, attendance, participation in webinars, and cash match from each agency paying to be part of the Consortium. ITLC was able to reach its contribution goal in 2017. The vast majority of the funds were spent on staffing, travel, and production costs for materials. The project was completed in November 2018.

## Impact

Several potential impacts resulted from the Signals project. One is the development of a crosswalk that is more detailed than those available (e.g., O\*NET) will allow veterans with applicable skills and transit employers to find one another. This will help agencies to fill the skills gap with people who have an appropriate background. A second area of impact is that the toolkit can help agencies be more gender-equitable in their process for recruiting, training, etc., which may help make the transit system less male-oriented and help tap into the under-represented talent pool of women.

Perhaps the largest impact was that the training courses developed help fill a skills gap, cover topics relevant across rail systems, and draw from the expertise of 21 rail properties. This was accompanied by cost-sharing, as each member paid only a small percentage of the development cost but had access to all 26 courses. The train-the-trainer course also built intra-agency capacity.

A TLC representative noted that the courses will eventually be evaluated for college credit, and it does not expect problems, as it has had success on similar training projects (see Rail Car Maintenance project in Section 9). College credit could be important for future recruitment; rather than choosing either college or a transit career, this training could be a combination of the two.

## Lessons Learned and Recommendations

Key lessons learned and advice to those wishing to implement a project to ITLC's include the following:

- Labor-management partnerships continue to be critical, offering twice the amount of knowledge. In some cases, training can be viewed as punishment (things are not being done correctly); labor and management working together removes this stigma.
- Buy-in is important. Having agencies pay to participate helps fund the program and fosters figurative buy-in as the agencies have “skin in the game.”

- It is important to have a rigorous Instructional Systems Design approach. The systems design experts do not need to be subject matter experts, but they need to have a systematic approach to obtaining information from experts in a way that allows them to build the training. The systems design can focus on making sure sequencing of learning events builds logically, allowing seeing from the viewpoint of the learner to combine steps that learners can follow.
- Build a good reputation and build trust with the transit locations. Metrics for success can accomplish this. ITLC conducted a return on investment study in 2010, looking at SEPTA and others and whether ITLC's training makes a difference. From the perspective of repair times, labor, parts, etc., very dramatic returns were demonstrated, which makes recruiting for later efforts much easier.

## Conclusion and Further Investment Recommendation

Like the Rail Car Consortium, the Signaling Career Pathways project developed training that fills an industry need. Signaling is complex and is getting more complex as automation is introduced in transit, whereas existing equipment can span multiple generations in age. The need for skilled personnel to maintain these signals is mission critical for transit.

This project created training at three levels of sophistication to help prepare individuals for work in signals maintenance. Although the absolute number of people trained for this project was low due to the focus on development and pilot testing, the number of people ultimately impacted by this training across the 20+ transit and rail agencies that participated in the consortium was in the thousands. For this reason alone, the project seems worthy of further investment to assist with obtaining college credit for the courses and to help other agencies that want access to the training to pay for it. This is particularly true for smaller agencies that have smaller training capacity (although ITLC scales the costs to join the Consortium by the size of the agency).

In addition, the project helped to facilitate tapping into pools of under-utilized talent by creating a crosswalk to military occupations and developing a toolkit to help make transit more equitable for women.

Even if their systems are unique, as some transit properties believe, providing training would be logical in that it would be helpful for trainees to start with a solid foundation in the basics of signaling maintenance from which they could have a basis to learn the nuances of the particular system.

SECTION  
**11**

# Metropolitan Council/Metro Transit – Mass Transit Technician Program

## Background and Problem Addressed

The Metropolitan Council is a regional agency that provides transit service, waste water treatment, and regional parks administration in the Twin Cities of Minneapolis and Saint Paul, Minnesota, and the surrounding counties. Metro Transit, the largest division of the Council, provides regional transit service to the area with a commuter rail line and two light rail lines. It operates 912 transit buses that serve the area on 123 routes, including 66 local service routes and 57 express and contract service routes. The fleet includes 41 coach buses, 169 articulated buses, and 702 40-ft buses, 132 of which are hybrid buses.

To provide services, Metro Transit relies on the technical skills of 294 mechanic technicians. Its mechanic workforce is aging, with more becoming retirement eligible each year; however, over time in the education system, there has been a disinvestment in programs that expose individuals to vocational and technical careers, such as high school automotive and vocational classes. As a result, there are fewer technically-inclined persons exposed to technical career opportunities. The alternative is completing post-secondary training programs that could be expensive, difficult to enter, and can take several years to complete. These resources (access to money, knowledge of post-secondary options, time) often elude racially-diverse and low-income Minnesotans.

In addition, the Twin Cities area features nation-leading racial disparities in employment, income, education, housing, and other metrics. These trends threaten to create an even greater impact as Minnesota becomes more racially diverse. Metro Transit recognized the need to play a proactive role in securing sufficient technically-skilled workers to continue providing transportation for the region.

## Proposed Workforce Solution

The proposal offered the Metro Transit Technician (MTT) program as part of a broader solution to these needs. The project was a multi-phase selection and training program winnowing a broad pool of applicants to the best performers. The first phase of the project recruited a broad applicant pool and selected participants to participate starting with academic readiness programming. In the second phase, a smaller pool attended 16 weeks of empowerment training, met

with a coach to identify strategies to overcome employment barriers, took a placement test, and, if necessary, received academic tutoring designed to help them reach the minimum scores to gain admittance to the academic program.

In the third phase, selected participants who demonstrated program commitment and academic progress were asked to continue into a 20-week customized mechanic class delivered by an academic partner on Metro Transit property. Participants also worked as paid bus maintenance assistants, shadowing experienced mechanics while receiving academic and coaching support as needed. All applicants and participants who were not selected to advance were offered a standard job readiness program. All remaining active participants could automatically apply for admittance into the selected academic institution's two-year Associate in Applied Sciences (AAS) Mechanic Technician program and continue their Metro Transit internship. (It was expected that participants at this phase would continue into the AAS program.)

## Partnerships

Metro Transit, a division of the Metropolitan Council, is the public transportation provider for the Minneapolis-Saint Paul metropolitan area. The agency is one of the country's largest transit systems, providing roughly 90% of the 78 million bus trips taken annually in the Twin Cities. Each weekday, customers board Metro Transit buses and trains an average of 250,000 times. Metro Transit served as the lead applicant, and fiscal agent, coordinator, and employer for the project.

The mission of Twin Cities Rise! (TCR!) is to provide employers with skilled workers, primarily men from communities of color in the Twin Cities area, by training underemployed and unemployed adults for skilled jobs that pay a living wage of at least \$20,000 annually. TCR! requires an 18+ month participant commitment to programming. Its staff and structure complement the multi-year commitment MTT participants would need to achieve a Metro Transit Mechanic Technician career. TCR!'s role was to provide support services for MTT participants with significant barriers, including personal empowerment courses, coaching, and career navigation. TCR! assisted Metro Transit with targeted outreach during Phase 1; during Phase 2, all 40 MTT participants attended the empowerment class designed to prepare them for a successful internship and academic experience. Participants with significant barriers met with a TCR! coach to implement learned empowerment techniques in new academic and professional environments as well as coaching and navigation support services continued during Phases 3 and 4.

Hennepin Technical College (HTC) is a public technical school with two campuses in suburban Minneapolis that awards AAS degrees, diplomas, and certificates and works closely with community partners to provide customized training. During Phase 2 of the project, the college administered ACCUPLACER

tests for all participants; those whose score met the academic strategic partner's minimums were retained for contingent enrollment. In Phase 3, HTC delivered a customized academic course designed to provide an introduction to Mechanic Technician instruction that was delivered exclusively by the academic strategic partner's faculty, although Metro Transit collaborated to develop course content. During the customized course, participant attendance, performance, and academic growth were monitored.

ATU Local 1005 represents the majority of Metro Transit's employees, including its mechanics; in total, ATU represents more than 300 employees. ATU staff partnered with the Metropolitan Council/Metro Transit for outreach, recruitment, and informational efforts to support the MTT program. In addition, ATU drew on its leadership's mechanical training and experience to assist Metro Transit in developing and implementing the program's internship experience and other hands-on training components.

No pre-existing relationships existed among the partners prior to the MTT project. Metro Transit selected HTC because it proved flexible enough to allow classes for MTT participants, allow Metro Transit to add material that was transit-specific, and adjust the rate of instruction as needed. TCR! was selected as a partner based on its history and record of success at placement and retention (80–90% one-year retention rate), and it was also flexible and built the program to meet MTT's needs in timing.

Overall, partnership formation went smoothly, apart from minor administrative details that had to be worked out, and both main partners were experienced working with employers. The MTT team formed advisory committees to support MTT through the phases and held overall partnership meetings with all partners across the life of the project. Depending on the phase, advisory committees from each group (e.g., Shadowing/Internship Committee, Curriculum Committee) met as warranted monthly or more. The whole team met quarterly, at a minimum.

## Project Implementation

### Phase 1: Recruitment

The project targeted recruitment to individuals who were at least age 20 and high school graduates or GED recipients and who demonstrated the ability to succeed in a two-year AAS Mechanic Technician program. The majority of MTT participants were to be from under-represented population groups and had an interest in a mechanic career but lacked a clear pathway.

The initial recruitment was conducted using Metro Transit funds. In general, as noted by a Metro Transit representative, two approaches were used. The first was to go into targeted communities to obtain an applicant pool that was reflective of the target groups (under-represented, low-income, persons of color,

women). The second approach was to have people come to Metro Transit by hosting open houses and information sessions through marketing opportunities for the targeted populations.

The Metro area is diverse, and MTT recruiters talked to leaders in the Native American, African American, Hmong (a Southeast Asia ethnic group), and Somali communities to tell them about the project. They visited job centers, mosques, the Somali market, and area high schools with automotive programs to recruit participants using a bus outfitted with “Now Hiring” signs and had existing mechanic technicians lead students on a tour with interactive modules to expose them with hands-on experience. Open house events were held at transit garage locations for participants to apply to participate in the project, and there were hands-on modules and technicians to talk to at these events. There were radio spots on targeted stations, including two Native American radio stations.

### Phase 2: Academic Readiness

Phase 2 would prepare 40 selected participants for a successful Phase 3 internship/customized class and meet HTC’s academic admission standards (Phase 4). To pare down the 400+ applicants, MTT used online assessments, including visual spatial aptitude and reading; 300 of those who showed initial interest did not follow through, many of whom may have reacted to the project in the hopes of getting a job, seeking faster placement. In total, 106 participants were truly interested, and of those, 56 met the minimum qualifications. From there, MTT staff assessed to what degree they were qualified (test scores, financial need under \$25,000) and took the top 41 (based on test scores, financial need, less than \$25,000), and maintaining an additional 15 as a “bench” in case of dropouts.

The 41 selected began the Empowerment Training at TWR!, which involved a two-hour session once per week. The project started with basic life skills, what gets in the way of a career, the people in your life, how to be successful, financial skills, life skills, etc., and often homework was assigned. Participants received a transit pass to ride all buses and rail systems to ensure they could get to class. During the project, a Metro Transit representative participated in the class every week to talk and answer questions. Participants also were given time to address their barriers to employment, such as self-sufficiency, reliable day care, having a driver’s license, etc., to ensure that they had a plan before the job shadowing/internship began.

Coaching involved developing a readiness plan before employment began based on a one-on-one assessment of the individual’s situation, fears, etc. and was held separately based on participant individual needs. The instructor met with participants each week to help them identify and overcome barriers and to receive coaching on conflict resolution. This is relevant because as participants

try to adjust to new expectations, frustration can build, so the coaching helps them deal with conflict in a positive way.

As expected, there was attrition from the project in this phase, primarily caused by attendance problems. Others were lost due to ACCUPLACER scores being too low, criminal background checks, and drug tests. If the only problem was ACCUPLACER, tutoring was available starting early in Phase 2 to see if the scores could improve enough to compete for positions.

### Phase 3: Customized Course and Job Shadow/Internship

The third phase introduced key academic and hands-on/practical concepts to MTT participants through the academic partner HTC faculty delivering a customized 20-week mechanical class. The course was designed to last 120 hours, delivered by HTC faculty in 90-minute classes twice weekly for 20 weeks.

To develop the course, Metro Transit's Maintenance Training Department worked with HTC and ATU. The basic premise was that the project had to assume that participants had no automotive or diesel experience; ATU also supported this. They also tried to prepare participants for the math component of a program at HTC to ensure they could handle the requirements. The committee used assessments to respond to participant skill levels.

Training took place on Metro Transit property at the overhaul facility for buses. HTC provided an instructor, and Metro Transit's trainers also led some of the training. Participants received uniforms and were provided with personal protective equipment, identification badges, and other needed items. Course topics included safety, tools, physics, basic engine components, and electrical theory. The class met twice per week, and HTC gave credit hours for this training. On the other three days, participants shadowed technicians who knew what was covered in class and provided corresponding hands-on demonstrations. The participants earned intern pay of \$15.50 per hour (no benefits) for 20 weeks for 20 hours per week, for a maximum of 400 hours.

Technician sponsors were recruited through an internal outreach effort. Those interested were interviewed about their experience working with youths and diverse populations and why they wanted to be a mentor. They were trained on how to work with inexperienced participants and had regular feedback sessions with sponsors every three weeks. This proved to be a helpful forum to assess what worked and needed to improve. Sponsors received a small stipend for each day they worked with a participant.

Participants had little to no experience, which could pose a safety risk in some functions. Sponsors gave participants more to do as they became more comfortable and competent; however, participants were not allowed to perform

work orders, and technicians could not leave their shadows unattended. (When they became official interns during Phase 4, some were competent enough to support technicians and were assigned tasks that technicians would check.)

#### Phase 4: Two-Year AAS at HTC

All MTT participants applied for enrollment in HTC's full-time Mechanic Technician program. All had taken the ACCUPLACER test twice in Phase 2, with tutoring and assistance in between, and all had earned scores that qualified them for the HTC program before entering Phase 3's customized program. Participants worked with HTC's partner to apply for financial aid, register for classes, and complete all other required administrative steps. The students were enrolled in the AAS Medium Heavy Truck Technician degree program, which was required for a Metro Transit position. This course did not require customization.

#### Career Navigation, Coaching, and Support Services

Throughout Phases 2, 3, and 4, TCR! also provided supportive assistance to MTT participants. As interns, the project continued their coaching on an as-needed basis. TCR! empowerment instructors observed if participants were progressing or had new challenges; academic help was provided by HTC, and Metro Transit staff helped with shift changes or similar things to help them address life issues, adjusting hours for academic demands as well. In addition, HTC had a program to help with resource navigation.

#### Academic Support/Tutoring

After MTT participants completed the ACCUPLACER test in October, participants who did not meet the academic strategic provider's minimum scores were required to meet with an academic tutor, who developed an Individualized Learning Plan (ILP) designed to raise the participant's ACCUPLACER score to meet the minimum requirement. The budget included 720 hours of academic tutoring, roughly 35 hours of tutoring for 20 participants. Academic tutoring activities were concentrated in Phase 2 but continued for participants who required significant improvement.

Overall, Metro Transit representatives indicated that implementing the project went smoothly, but there were some challenges in labor relations with ATU. Some of the project structure was different from the original plan, and several addenda to the Collective Bargaining Agreement were required, which necessitated negotiation. It also took a great deal of time working with sponsors to arrive at the stipend amount (\$10 per hour) and implement it.

## Outcomes

Metro Transit set out a number of metrics, but many had no specific goals. However, it did have goals for how many would be recruited and sent to each phase of the training. These are summarized in Table 11-1.

**Table 11-1**

*Metro Transit MTT  
Project Outcomes –  
Goal and Actual*

Goal Description	Goal	Achieved
Recruit applicants	200	402 (201%)
Phase 2 empowerment	40	40 (100%)
Phase 2 graduates	20	19 (95%)
Phase 3 custom training/interns	20	19 (95%)
Phase 3 graduates	20	19 (95%)
Enter AAS program	-	19

Metro Transit's considerable efforts at outreach were successful at getting 402 applicants who expressed interest in the project. The number that showed up for placement testing was lower, but more than 100 were interested in 40 positions in a very long, difficult program (requiring two years just for the AAS portion in Phase 4). After testing, the MTT program was able to select those who met qualifications and demonstrated need. Of the 40 that entered training, MTT had anticipated attrition and ended up with 19 participants (95% of the goal) who met the qualifying scores and demonstrated commitment to the program to continue to Phase 3. All participants that started Phase 3 completed it and were enrolled into Phase 4, the AAS program and internship at Metro Transit.

## Budget and Matching Funds

The ITWDP provided \$203,210 (48% of the total) in Federal funds for the MTT program. The Metropolitan Council/Metro Transit committed their match of \$203,210 in a Metropolitan Council Equity Grant award (for ideas to improve diversity), of which \$58,865 was in-kind contributions. The total for the project was about \$422,000. Much of the matching was used for recruitment and outreach in Phase 1 before the Federal award was available. Overall, the project went as expected from a spending standpoint.

## Impact

The impact of the project is that Metro Transit added 19 trained professionals who are training to receive their AAS and become mechanics for the agency. Another 21 people received training on empowerment and coaching on overcoming barriers to employment. In addition, Metro Transit has taken a step to make its workforce reflect its diverse community and expanded its talent pool by providing an opportunity to disadvantaged groups. Metro Transit representatives indicated that they received an infusion of younger talent and added diversity (80% of the participants were of color, one was female.)

The project demonstrated to the transit industry a model for yielding real success—in essence, a pay-for-performance training program from which the agency was able to train and hire technicians with no prior experience in the field.

The impact on the community was interest and goodwill. Representatives from Metro Transit noted that the project was often brought up by community members who asked if it was still taking applications. The Native American community reportedly was particularly excited about the program, and women coming forward is important for the agency, which at the time had only one female in the bus area and one in the rail area; the new cohort had four women.

An unexpected impact noted by Metro Transit was to the morale of existing technicians. To participate as mentors, interacting with new individuals and feeling part of the process of developing talent of future was exciting, as participants looked upon them with reverence, which was a boost of confidence. Feedback sessions from the sponsor technicians indicated excitement and energy.

Overall, the project took individuals with no experience in this field and readied 19 of them, who now have jobs, can support families, and will contribute to the community.

## Lessons Learned and Recommendations

Key lessons learned and advice from Metro Transit representatives to those wishing to implement a similar project include the following:

- The importance of Union support cannot be overstated. Metro Transit is a union shop, and participants will become ATU 1005 members. MTT needed buy-in from ATU leadership up front. This program did not exist before, so in a long-standing union environment, having ATU's help to navigate and support the program's creation and work out the details (e.g., stipends to sponsors) was important.
- Outreach works, but it has to be targeted, with "boots on the ground." MTT recruiters went out into the community to talk to leaders, the Somali Market, mosques, churches, and other gathering places. It was important to build and maintain relationships, but the agency had to continue to build and maintain them on a regular basis. Doing this led to more than 400 applicants for 40 openings.
- Having the right partners is critical to the success of the program—they must be willing to work, solve problems, be flexible in their own programs to adapt them to transit needs, and very good at what they do.
- Position requirements have to be built into the curriculum as participants advance. This program had increasing demands in each phase, both in terms of commitment and the difficulty of the material. The early phases include

only 12 sessions, and working on job readiness is taking place. In Phase 2, participants are required to commit 20 hours per week, but with a salary. By Phase 4, participants are in a two-year degree program that leads them to the needed qualifications; at each step, they are building on a foundation and gaining an understanding of the job requirements.

- MTT built a salary into Phase 3; although \$15.50 per hour is not enough to support a household, it is enough to offset a second job or to help another wage earner. MTT staff spoke to prospective participants about the need to sustain themselves during the long training, especially during the empowerment training. The salary of \$15.50 sets this apart from other programs. As adults, they cannot stop their lives and receiving training cannot be the only incentive; the pay helps address that issue to an extent. This is a career change, and program participants get paid while going to college, which is a big part of the success. In Phase 4, Metro Transit recognizes participants as interns who are paid at a 70% scale wage, which amounts to \$19.60 per hour full-time and increases in the second year.
- Another factor is a track to obtain employment at a specific organization. Participants know that once they graduate, they have a job at Metro Transit.
- This program was a new or at least different way of doing business for Metro Transit. From a management standpoint, bringing in people from under-represented communities made sense, but for some who had been at Metro Transit for a long time, it was difficult to understand at first. There was mixed reception to the program by the current workforce, who felt they had not received the same advantages as the participants. However, the participants won them over. Metro Transit personnel saw the program as a testament to the agency's and mentors' willingness to participate, and participants can learn the material and the agency can sustain them.
- Metro Transit representatives said that change was the biggest factor that would disrupt students. The coaches have to be there to help them adjust.

## Conclusion and Further Investment Recommendation

The MTT project was a high-impact project, assuming most participants will complete their AAS programs at HTC. The project took untrained, disadvantaged individuals and systematically prepared them in job readiness, basic mechanics, and a degree program. As Metro Transit representatives noted, the agency developed the people it needed and expanded its talent pool and improved diversity. Worth noting is that this was one of two ITWDP projects to quickly complete its proposed tasks. Tasks were completed in May 2018.

This project appears worthy of replication for a number of reasons. First, this was a strong partnership among the employers, academia, and a community-

based program to prepare and support participants with training and coaching. Programs with these elements are among the strongest historically in the ITWDP, and this one was no different.

A second factor that made this project a candidate for replication was a wise recruitment and training pattern that systematically assessed and winnowed down the participants until the best were left. MTT was wise to over-recruit—a better selection ratio spawned better results. MTT supported people to try to retain them in the program but also understood that attrition from populations with barriers to employment is normal and should be accounted for up front. This process allowed both MTT and the participants to increase investment in one another as the program progressed through the four phases. Despite this investment, the program cost was still relatively low.

A third, related factor in the design is that the students were progressively introduced to the work environment as shadows and then as full interns. In addition, each participant had a trained mentor to teach, advocate, and guide them. Both of these helped with integration of the new employees with no transit experience into the culture and workforce.

A final important factor is that MTT paid the participants and had a job for them. As the time demands increased, the salary provided enabled the learners to stay enrolled. Moreover, the commitment to employ participants at the end is highly motivating, as participants know they are working toward something concrete. Many similar projects failed to do either, and, as a result, many resources are spent on participants who ultimately help another employer or who end up under-employed because the agency did not have positions available.

SECTION  
**12**

## Jersey City Employment Training Program, Inc. (JCETP) – Workforce Development Program

### Background and Problem Addressed

The Jersey City Employment Training Program (JCETP) is a non-profit agency mandated by WIOA and has been serving Jersey City residents for 28 years. It provides outreach services, workshops to prepare job seekers, intensive services for qualified customers, a variety of youth services to support in-school youth needing summer employment, and career guidance to out-of-school youth preparing to enter the workforce. Its staff work together with various social service agencies to assist customers securing employment.

Hudson County is an impoverished area with a strong need for an innovative training program that could lift individuals and their families out of poverty by creating a career opportunity to the middle class. At the same time, due to the high number of multi-million-dollar regional public transportation building projects, the State needs thousands of local area workers who are able to work in the building and construction trades. For example, the Hudson County Building and Construction Trades Council (HCBCTC) needed more apprentices, and, according to the DOL's Bureau of Labor Statistics, employment of heavy and tractor-trailer truck drivers was projected to grow 21% from 2010 to 2020, faster than the average of all occupations.

Hudson County's population is mostly African American and Latino and could benefit from training to enable joining unions, but minorities and people from urban areas have historically been under-represented in local construction unions. Unions now face pressure, as publicly-funded projects require contractors to employ minorities and the contractors were often running afoul of these provisions. The unions found that many of the target populations had criminal records, which was a problem for acceptance into unions. JCETP believed that if ex-offender participants worked hard and did not recidivate, they were worthy of membership.

### Proposed Workforce Solution

The goals of the Workforce Development Program (WDP) were to build human capital with the critical skillset needed by the public transportation industry,

invest in America's economic growth, and create an innovative nationally- and regionally-significant public transportation workforce development model. The project would be used to create an innovative workforce development training program that would provide JCETP clients and impoverished Jersey City residents with the educational training required for admission into the apprenticeship programs of local trade unions, specifically the New Jersey Transit Union, the ATU, and Port Authority jobs.

It would accomplish these goals by training workers to meet local demand for a public transportation workforce who could perform the highly-skilled work needed for massive ongoing regional transportation and infrastructure projects (for example, New Jersey DOT's \$240 million Bayonne Bridge project with nearly 2,800 jobs). The initiative would provide individuals from the prisoner re-entry population, a population with a major barrier to finding employment, with the pre-apprenticeship training, knowledge, and skills required to secure building trades and transportation employment. JCETP would ensure that participants earned both relevant general accreditations (such as a GED) and access to transit-specific jobs, internships, and training through local unions and workforce boards.

## Partnerships

JCETP created an innovative employment and training curriculum based on evidence-based practices that integrate life skills training, case management, job coaching, and *pro bono* legal support for re-entry clients and also coordinates housing for them. It has been successful both in finding permanent employment for re-entry clients and in dramatically lowering its clients' recidivism rates. To support this project, JCETP hired an instructor to prepare participants to pass the GED test or its equivalent. The instructor taught classes in JCETP computer lab space and instructed participants on computer and internet skills. As the lead agency, JCETP would also serve as the coordinator and fiscal agent for the project.

JCETP also serves as the Jersey City site for the New Jersey Reentry Corporation (NJRC), which was formed by six former New Jersey Governors to address the needs of those returning from incarceration. NJRC would provide wrap-around services, including addiction treatment, sober housing, linkage to federally-qualified health centers, legal services through the New Jersey State Bar Association Young Lawyers Division, and spiritual mentoring through their faith-based community partners.

The HCBCTC represents its member unions as a business agent, keeps track of the standards for applicants to the building and construction trades unions, and oversees more than 20 building and construction trades. The Jersey City Ordinance Project Labor Agreement (PLA) requires that the unions employ

a target number of Jersey City residents for projects that involve more than \$25 in tax abatements. It has been difficult for HCBCTC to fill this number due to residents' overall lack of education and other apprenticeship program prerequisites. HCBCTC committed to accept applications from qualified project participants, including individuals in re-entry, who applied for its apprenticeship programs. HCBCTC and local unions would accept grant-funded apprenticeship fees for project participants in re-entry who applied for apprenticeships.

The New Jersey ATU represents more than 290,000 members in the US and Canada and is affiliated with the AFL-CIO. It is an expert on workforce shortages in the transportation industry; currently, there is a shortage of bus operators who need a CDL and of maintenance workers. To support this project, the NJ ATU committed to providing participants with mentoring and to hosting job fairs in coordination with New Jersey Transit (NJT). The ATU committed to referring participants to NJT and private transit jobs and to hosting trainings for as many as 200 participants twice per year by providing project participants with 20 hours of CDL training over 20 days and eight hours of aptitude test preparation, subject to the ability to recruit participants.

NJT is the third largest statewide public transportation system in the US, operating in New Jersey, New York, and Pennsylvania. Like many other transit agencies, NJT had implemented a program to prepare for pending retirements and attract younger workers to the agency. JCETP's proposal supported NJT's workforce development plan and its secession-planning program, and NJT served as a potential employer for this project.

The Port Authority of New York and New Jersey maintains vital transportation facilities in Jersey City, New Jersey, and New York. It is a recipient of Federal grant programs to the PATH Rail Service, Newark Liberty International Airport, maritime seaports, and tunnel and bridge facilities. It worked with JCETP to identify employment opportunities and provided feedback in the development of training programs and also committed to work with JCETP to support job fairs and career events for project participants.

The Hudson County WIB is a private-public partnership committed to improving the career prospects of individuals to meet the current and future needs of Hudson County's employers. The WIB worked closely with JCETP to ensure that Workforce Investment Act (WIA)/WIOA allocations to JCETP's programs and to the One-Stop Career Center were aligned with the County's workforce developmental goals and the needs of the private sector.

The Hudson County Department of Corrections (HCDOC) had been operating for years to combat recidivism with its in-house programs. HCDOC took the innovative step of offering substance abuse treatment to individuals while

incarcerated at its facilities. HCDOC provided the use of its two 22-passenger shuttles and provided transportation to project participants.

The City of Jersey City and Hudson County committed to funding up to four years at varying levels to support the project.

JCETP had prior strong partnerships for case management and wrap-around services from its pre-existing work with court-involved individuals. The newer partnerships were those with labor unions and vendors providing pre-apprenticeship training.

There were some minor issues in partnership formation for JCETP. For example, JCETP thought NJT could provide CDL training but, in the end, NJT and ATU could not hire anyone with the criminal backgrounds of most participants; because NJT provided only behind-the-wheel time to those it intended to hire, the CDL training did not materialize. Generally, the labor unions with which JCETP's CEO had relationships were receptive to allowing participants to apply, reviewing their qualifications on an equal basis, and overlooking the issue, in that the WDP was helping participants restore their driver's licenses. Often a requirement to apply to a union, they overlooked the lack of a license as long as JCETP was in the process of restoring it if, by the time the participants signed on as apprentices, they had their licenses back.

## Project Implementation

### Population Served

The project aimed to serve Jersey City, Hudson County, and historically-disadvantaged persons, particularly the re-entry population. There were approximately 900 individuals released from incarceration annually in the targeted area, a majority of whom were eligible to participate in the project. The project specifically focused on young persons with a history of court involvement who possessed minimal educational attainment, did not reside in a stable residential environment, and had a history of addiction and alcohol abuse. Veterans were given preference during client selection in recognition of their service to the nation.

### Project Development

As part of project development, WDP staff created a project management plan, drafted an operations manual for staff and managers, hired and trained the staff instructor and case manager, developed recruitment materials and a recruitment plan, and conducted outreach to people inside and outside JCETP and the One-Stop Career Center.

## Outreach

JCETP outreach efforts were implemented for the recruitment of clients who successfully completed the program and their job placement. This included the creation of outreach materials, attending networking events, and conducting weekly orientations to increase participation and referrals. Project representatives went door-to-door in public housing locations and visited churches and mosques in Jersey City and Newark, community centers, City Hall, neighborhood barbershops and beauty parlors, the NAACP, Latino/Hispanic organizations, and drug treatment programs. They held workforce recruitment fairs and created a website and, in some cases, went into prisons to recruit, setting up in Northern State Prison, Rahway, and Trenton for recruitment drives (most clients were already out of prison) and found it helpful to say that they had a federally-funded training program that helped persons pre-qualify for a pre-apprenticeship program upon release.

**Figure 12-1**

*JCETP WDP  
Program Flyer*



## Case Management and Legal Services

The re-entry population faces a number of barriers to employment and often have additional legal problems as a result of their time spent in prison. For example, they may have family problems, health problems, housing challenges, issues with their driver's license, drug and alcohol addiction, or

mental health issues. The WDP had a licensed social worker at all sites to provide case management. Their model focused on seven main components of reentry services—addiction treatment, sober transitional housing, training and employment, Medicaid registration and healthcare access, Motor Vehicle Commission identification, legal services, and mentoring.

They also had a lawyer at all sites. Outstanding legal issues are a significant cause of stress, financial strain, and recidivism. Individuals in re-entry often have multiple outstanding municipal court issues such as traffic violations and family court issues such as child support orders that are predicated on outdated income information. Additionally, child support obligations often are not waived or reduced during the period of incarceration or re-entry—but with no source of income, returning prisoners may have accrued a large amount of debt and legal violations. These matters have serious consequences for individuals in re-entry who often cannot afford to pay an attorney or the cost of their fines. Further, a missed court date, even due to incarceration at the time of the trial or an incorrect post-release address, leads to the issuance of a bench warrant. A visit to the MVC to obtain a State ID could result in being taken to the county where the bench warrant originates, completely halting the reintegration process. This creates a self-perpetuating morass of fines and violations that are nearly impossible to escape. To make up for these legal discrepancies and to resolve all significant issues, JCETP and NJRC had a network of more than 63 *pro bono* attorneys to represent their clients statewide. Providing these services is normal for JCETP and NJRC and something they consider a strength of their program.

## Education and Training

The primary challenge for WDP participants was their low level of academic proficiency in language arts and mathematics, and JCETP had to improve participant academic abilities to enable clients to be ready for a pre-apprenticeship. Each person who completed a program intake completed a Test for Adult Basic Education (TABE); the average TABE Math level for all clients was 7.5, and the average TABE Reading level was 8.3. By the end of this project, 35 participants remained registered to use the Workforce Learning Link Software (WFLL) to prepare for the Test for Adult Secondary Completion (TASC) or to improve their math and reading skills. JCETP provided adult educational services including the Workforce Learning Link, a State-funded computer-based GED preparation software, and on-site tutoring for interns at the Jersey City location. The Workforce Learning Link has pre-high school and high school educational software. There were up to 23 licenses for Adult Basic Education instruction and 23 licenses for the TASC or High School Equivalency (HSE) instruction. Although JCETP had the opportunity to use Aztec Software as an alternative to WFLL, due to technical difficulties, the software was not fully implemented as part of this project. Therefore, the case manager encountered outreach challenges, as many of the participants were not actively engaged in using the

WFLL system. For example, two clients experienced recidivism, and two others were successfully re-engaged in their academic activities so they could obtain their GED.

Although JCETP planned to create two tracks in the project—one for re-entry participants and one for those that were not re-entry—in the end it determined that one track was sufficient. The project began with a week-long orientation for every participant. A social worker conducted a bio-psychosocial assessment and obtained information on the participant's family history, medical history, criminal background, Medicaid enrollment, drug addiction history, etc. Then, participants took the TABE test to have a benchmark of proficiency. Based on their scores, the participants entered remedial education at one of two sites that offered classes during both day and night. A TABE re-test was taken following these classes to determine if participants were ready for pre-apprenticeship training. Project representatives noted some attrition during this period, as many participants needed a job as soon as possible, and a parole condition can be having a job within six months.

For participants with sufficient TABE scores, there was an array of services. JCETP offered specific vocational training programs to re-entry clients and linked them directly to employers. At the One-Stop Career Center in Jersey City, JCETP participants and local residents were provided with employment training, skill-based workshops, job search assistance, connections to employment, and more. They could choose CDL training for transit, OSHA training, and a pre-apprentice program through the National Career Institute. The program consisted of 280 hours over eight weeks; mornings were spent on basic education and job readiness skills such as language, math, human relations, resume writing, business speaking and interview techniques, and afternoons focused on trade skills such as OSHA safety, construction math, tools, framing theory, and hands-on, and plumbing.

The pre-apprenticeship training was to prepare the participants for the rigorous union testing and were trained to the standard to get the apprenticeship. WDP staff worked with the unions to provide an understanding of the subject matter areas that needed to be covered. For many areas, the requirements were too difficult or the material too sophisticated for the participants. WDP representatives reported having the most success with laborers and carpenters and found the laborers union was most within reach for the population related to passing entry tests.

New Jersey Laborers Union Local 3 provided instruction to those eligible and interested in the OSHA 30 certification, training clients on recognition, prevention avoidance, abatement, and prevention of safety and health hazards in the workplace. Participants received instruction in the advanced 30-hour version of the training, which included all coursework for the basic OSHA 10. Instruction

included hazardous materials, materials handling, introduction to industrial hygiene, fall protection, welding, and powered industrial trucks, as well as CPR training. They also received 80 hours of instruction in general labor, which included tasks deemed necessary to prepare clients for union apprenticeships.

Some CDL training was offered initially through the NJ Department of Public Works; however, part way through the project, WDP was unable to continue to offer this training, and permission was not granted to switch vendors under the project. JCETP arranged alternative CDL training opportunities (with a separate funding stream) through the Jersey City One-Stop Career Center.

### Placement

The WDP team worked cooperatively with a narrow cluster focus. JCETP had an employment specialist assigned to program participants who looked for employers that are re-entry friendly. They have established relationships with employers, so the hope was to keep participants in the trades to help them develop skills for long-term economic mobility. They also hosted or attended a number of job fairs with employer partners.

### Outcomes

JCETP set forth a number of metrics, including goals in terms of the numbers they expected to attain. These are summarized in Table 12-1.

**Table 12-1**

*JCETP WDP Project  
Outcomes –  
Goal and Actual*

Goal Description	Goal	Achieved
Intake	-	509
Enrolled	320	469 (146%)
Placed in employment/apprentice*	176	210 (119%)
Completed GED/TASC/ACT training	176	-
Recidivism	12%	20% (+8%)
Legal services	-	76

\*Includes 21 in trades and 66 in apprenticeships

Overall, JCETP exceeded its enrollment goal by 46%; it placed 210 people, which was higher than the raw number in the proposal (55% of 320), but about 10% below the overall 55% target. Of those placed, 21 were placed in trade-related employment and 66 into apprenticeships; the other placements were in non-trades-related employment. JCETP staff suggest this was for a few reasons—criminal backgrounds were a problem for some trades employment, some had difficulty passing the placement testing, and some had a need for rapid placement as a condition of parole or for financial reasons. No data were reported for the number that completed GED/TASC/ACT training.

The recidivism rate for the project was somewhat higher than the targeted 12%; this may be because the project worked with a difficult population, including those with prior drug or alcohol problems and those lacking stable housing. That said, the number was still well below the national re-incarceration rates in general. The project final report also notes that 76 participants were screened for legal services and found to qualify (although at least 124 appear to have received some level of legal assistance on matters such as driver's licenses, etc.).

## Budget and Matching Funds

The ITWDP provided up to \$604,896 in Federal funds (39% of total project costs) for WDP; however, JCETP reported using only \$339,154, not spending the remaining \$265,742. JCETP and NJRC were able to provide \$388,850 through in-kind contributions. An NJ Build grant provided an additional \$439,918 for pre-apprenticeship training. As a result, FTA provided only 30% of the project funding.

Overall, JCETP indicated that project funding went smoothly. It did not expect the State grant funding to be as substantial as it was, which offset some FTA costs. Project staff noted that if they had more time, they might have run more cohorts or done more simultaneously. The project concluded in December 2018.

## Impact

For the construction and transit industries, the impact was minor. Although the re-entry population provides a substantial potential workforce pool, the complexity of many of the jobs is a mismatch for the educational attainment levels of many in the population. Likewise, current restrictions on hiring individuals with criminal backgrounds prevented the population from finding trades jobs. Only about 10% of those placed found jobs in the targeted trades; apprenticeships were a more promising avenue.

In terms of employment, JCETP representatives noted that this WDP was the most substantial catalyst for helping employment among its clients and within the community. It developed partnerships, resources, and pipelines for skill-based training and employability that otherwise would not have occurred. The employers engaged with JCETP and NJRC, which was a chance to work more collaboratively with the private sector that produces benefits for today.

Another impact was for clients who faced major barriers to employment and stability coming as re-entry participants. The project helped them stabilize by providing assistance, support, and a small stipend. More than 200 people facing substantial barriers became contributing members of the community. For some participants, this was the first time they ever had employment.

## Lessons Learned and Recommendations

Key lessons learned and advice from JCETP representatives to those wishing to implement a similar project include the following:

- An issue was participants having an income; the program received a waiver to provide a stipend for the first year because participants needed some income and re-entry participants were on the edge financially.
- Partnerships were key to the project's success. Between providing funding, training, support services, and legal assistance, each partner's contributions were what made it work. The program had almost a 50% success rate with a very difficult clientele. The WDP was able to enroll more than 450 people, and partnerships and case management helped.
- A challenge for the program was that many participants had to work to earn money. They were in the building trades pipeline, but legal and financial obligations made working paramount. Nine months into the program, many people got out of building trade pipeline and into employment; they had stabilized but needed income.
- A significant challenge was the academic proficiency and limited skillset of participants compared to the expectations for employment with the transportation/construction industries. For court-involved persons who possess a long, chaotic, and often violent past, there are substantial legal barriers to employment. Criminal history, court fines, and regulatory sanctions pose direct challenges to participants for prospective employment. In addition to grappling with the potential employability of participants, there exist challenges of housing, addiction treatment, medical and behavioral healthcare, past legal challenges, and familial adjustment/reunification. Recognizing these systemic challenges, it may have been appropriate to have provided a longer timeframe to achieve apprenticeship or employment for participants. In addition, it may be prudent to evaluate the relative difficulty of employing certain persons based upon behavioral case histories, which would indicate the relative difficulty of securing and maintaining consistent and constant employment.
- It was necessary to provide participants with a separate, distinct training track. Their personal histories of incarceration and healthcare challenges resulted in unique and difficult barriers to employment. JCETP worked diligently to enroll the participants within the pre-existing union and corporate apprenticeship training program, but those programs were not designed to accommodate the multiple requirements of the population to ensure safe and responsible employment. The challenge is to secure a separate track for JCETP participants, which would enable them to receive the necessary academic and work preparation along with critically-needed wrap-around services to achieve work readiness and sobriety. Simply put,

re-entry participants fare better when working as an individual cohort as opposed to merely enrolling in a pre-existing workforce training program. The re-entry population has unique and demanding needs that need to be appropriately addressed in a coordinated effort with training to maximize the responsiveness of the client.

- Whereas the ITWDP appropriately focused on employment within specified industries, considering the significantly under-employed nature of re-entry participants and their barriers, JCETP's recommendation is to be mindful of progress achieved in developing a more work-ready population. Those services include Medicaid and health insurance enrollment, the attainment of driver's licenses, the attainment of sober structured housing, and the securing of legal services to address past illegal actions. USDOT would seek to enhance employment through all unemployed sectors, particularly those most seriously challenged; thus, it is sensible to afford a grant recipient with a recognized benefit for having enhanced work employability on several fronts, as opposed to merely enlisting those more work-ready clients for prospective employment.
- Employment job fairs were most successful in strengthening partnerships between prospective employers and participants. Recognizing the history of court involvement with participants, JCETP did not fully appreciate how these unique barriers would negatively impact client employment. For example, NJT was not able to hire participants with the types of backgrounds the participants had and could not provide them with the full scope of CDL training.
- A significant challenge to the implementation of this grant was the need to accurately capture client data points as it related to demographics, training opportunities, and job placements. Although JCETP/NJRC captured client information using a customized Salesforce database system, many data points had to be duplicated manually into the AOSOS system, which is required by the NJ Department of Labor and Workforce Development, pursuant to JCETP's management of the One-Stop Career Center. The conflation of two different database systems that are not interoperable resulted in systemic data entry challenges.
- Many participants became employed outside the timeframe of the project, as the union admission process was frequently lengthened. To provide necessary services while clients attempted to receive necessary training to qualify for apprenticeships, JCETP continued to provide case management services well beyond the timeframe of the grant. JCETP clients are among the most marginalized.
- Some participants did not have mandated court participation. In contrast with court-referred clients or persons who had recently left incarceration with whom JCETP has expertise, WDP welcomed a diverse and varied

cohort. The JCETP case management system offers a significant array of services that are carefully coordinated to achieve consistent benchmarks of performance. A difficulty for case managers was the unfortunate tendency of clients to temporarily or permanently leave case management orientation when an outstanding employment opportunity became available. Client retention and follow-up of non-court mandated clients was a significant challenge. Those who obtained employment frequently had difficulty following up with their case manager during business hours to complete post-testing and exit interviews. Many interested clients also faced personal challenges that jeopardized their progress. Clients, at times, were not employment-ready, as they did not have proper identification, Medicaid/ private health insurance, and clinically-appropriate sustained addiction treatment.

## Conclusion and Further Investment Recommendation

JCETP's WDP represents a successful effort to reach into a different talent pool for apprentices and employees to the transit construction trades. By working with the re-entry population, JCETP took one of the most challenging populations for workforce development, addressed their many barriers to employment, and provided them support and job readiness training and even some technical training. Ultimately, it was successful at providing at least some training to more than 450 participants and placing 210. This is a significant accomplishment given their pre-existing barriers to employment and the short timeframe of this project.

Despite best efforts, there was limited success at placing JCETP's participants into the trades and a bit more success placing them into apprenticeships. JCETP's representatives suggested this was due, in part, to the population's low academic capabilities. In addition, many are precluded from union membership simply by virtue of their criminal histories. Therefore, further investment in this program by FTA is warranted only where there can be a longer timeframe to improve academic readiness and unions are willing and able to consider candidates with the types of court involvement of this population. Alternatively, there may be a population that is court-involved but with types of offenses that would not preclude union membership.

## Success Stories

**Steven** came to JCETP to seek help in finding gainful employment. Following an assessment by a case manager, it became clear that he had several employment barriers, including Drug Court involvement, low TABE reading and math scores, lack of construction and transportation credentials, and a suspended driver's license. He was immediately provided with resume building, interview preparation, work readiness, and computer training services. His case manager also helped him obtain several key social services such as Medicaid, food stamps, cash assistance, and vocational and rehabilitation services, and he became a patient at a federally-qualified healthcare center.

Once he was able to overcome these barriers, Steven began attending JCETP-sponsored job fairs. He was provided the opportunity to interview with prospective employers, an effort that paid off, as he secured employment as a General Construction Laborer with the Shuster Group. However, his inability to meet the necessary requirements to secure union membership led to a layoff.

JCETP was there to help. In February 2016, Steven enrolled in the WDP program and began the union certification process. During a construction job fair, he was connected with the Urban League and was enrolled in classes to receive his OSHA 10 certification. He also was able to apply for membership in several unions and in June 2016 was selected by the Bricklayers Union Local 4 as a potential candidate for apprenticeship. Once he earned his masonry certification, he was offered a job with the union and began working immediately.

Steven also completed his final Drug Court phase and paid off the surcharges that were preventing him from getting his license restored. In taking advantage of all the WDP had to offer, he not only attained employment but also reached his goal of becoming a union member. Now, with the barriers to employment gone, he continues to lead a life of success.

When **Nicholian** first came to JCETP, he expressed interest in a career in the construction and transportation fields. Based on his interests, his case manager enrolled him in the WDP. He successfully passed the TABE with high reading and math scores, which made him eligible for on-site training immediately.

In June 2016, Nicholian began a CDL class with the Department of Public Works. He built a strong working relationship with Jersey City's Director of Safety, Training, and Demolition, which ultimately led to his swift success. Now CDL-certified, he can compete for employment opportunities in New Jersey and beyond.

SECTION  
**13**

## Niagara Frontier Transportation Authority (NFTA) – Skilled Laborer Jobs Training Program

### Background and Problem Addressed

The Niagara Frontier Transportation Authority (NFTA) is a public authority responsible for the public transportation oversight of Erie and Niagara counties in New York. As an authority, it oversees a number of subsidiaries, including the NFTA Metro bus and rail system, two airports, and a small boat harbor. The NFTA Metro bus and rail system is a multimodal agency using various vehicle modes, including diesel bus, diesel-hybrid bus, CNG bus, light rail, and cut-away vans. Agency-wide, NFTA employs 1,500 full-time and part-time employees.

NFTA had experienced difficulties in recruiting and hiring qualified candidates for entry-level mechanic and electrician positions, particularly maintenance and electricians. A large number of current mechanic and electrician employees at NFTA were approaching retirement age; 46% of NFTA skilled-craft employees, which includes mechanic and electrician positions, were over age 55 and eligible for retirement. In addition, there were 88 current skilled-craft employees between ages 45 and 54 approaching retirement age, representing 37% of the NFTA skilled-craft workforce.

In addition, low minority representation existed within NFTA skilled-labor positions, at just 6% of NFTA's skilled-craft workforce. NFTA maintains a bus and van fleet well beyond its useful life, so a need for a complete and well-trained workforce to repair and maintain vehicles was critical to effective service. Compounding these issues was a lack of sufficient dedicated training space at NFTA.

NFTA representatives noted that there also was a skills mismatch. At the time of the proposal, there was substantial unemployment, but those looking for work lacked the requisite skills to fill these jobs. NFTA competes for a very limited labor pool, and, as unemployment decreases, it becomes even more shallow.

### Proposed Workforce Solution

To address current and pending skilled-trade workforce needs and diversity issues, NFTA's Workforce Development project proposed to develop a Skilled Laborer Jobs Training Program (SLJTP) to recruit, train, and provide career pathways for traditionally-underserved populations and semi-skilled incumbent

NFTA workers. The project would provide a new approach to addressing current and pending skilled-job vacancy and diversity issues at NFTA by combining several levels of community involvement in the recruitment and training of prospective project applicants. Through partnerships, NFTA would be able to recruit prospective applicants, identify candidates who possess the core competencies to successfully complete the project, and provide continuing education to those individuals as well as incumbent workers for additional career advancement throughout NFTA.

In addition, the project would include the retrofit of a life-expired NFTA bus for use as a workforce training tool to provide a hands-on training experience for project participants and supply additional classroom space for current and future training initiatives.

## Partnerships

NFTA was the lead agency and was responsible for all management and reporting functions, monitoring programmatic processes and schedules, quarterly reporting and technical/managerial interactions with the FTA, monitoring project performance against hiring goals, and adjusting the project's training components as needed to reflect the skills required to fill mechanic and electrician job vacancies. NFTA Human Resources staff conducts recruitment and community outreach efforts to build a pool of eligible candidates to enter and complete the training program.

NFTA was the sole owner and operator of the retrofitted training bus for this project. Once the retrofit was complete, the bus was made available for partners to enable participants to gain additional hands-on experience with specific NFTA bus components.

The Buffalo and Erie County Workforce Investment Board (BECWIB) conducted outreach efforts, initial skills assessments, and interviews for interested parties, including unemployed and minority populations who were recommended to participate in the skilled-laborer jobs training program provided by Erie I Board of Cooperative Educational Services (BOCES). The BECWIB also leveraged the services of its subsidiaries in recruiting—the Buffalo Employment and Training Center and the Erie Community College One-Stop Center. In short, BECWIB acted as a clearinghouse for the long-term unemployed and connect with opportunities.

The Western New York Veteran Affairs Healthcare System provided outreach efforts, initial skills assessments, and interviews for interested veterans; appropriate candidates were recommended to take part in the skilled-laborer jobs training program provided by Erie I BOCES.

Erie I BOCES is a local vocational training resource focused on the skills trades. Erie I BOCES executed the proposed training program within the project timeline,

including both a full-time and part-time track for new and incumbent participants. Specific training courses included Electricity, Hydraulics, Pneumatics, Machining, Mechanical Drives, Pipefitting, Welding, CDL Bus Training, and OSHA Safety.

NFTA staff have worked previously with the partners either advertising jobs or, in the case of BOCES, creating a prior operators and skilled trade training program.

Note that the NFTA representatives interviewed for this evaluation were not part of the project in the beginning. Therefore, information presented here was obtained from the current Project Manager. As the Project Manager, he spoke to trainers monthly, met with each class before they began the program, and visited the Veterans Affairs office and the Career Center to tell potential participants how to get qualified for the training program. NFTA representatives met quarterly with the trainers to go through the curriculum and adjust as needed. Otherwise, communication involved ongoing conversations as needed via e-mail or phone.

## Project Implementation

NFTA's target population for the project was traditionally-underserved populations of unemployed and semi-skilled incumbent NFTA workers. They sought people who were long-term unemployed or had a job skill deficiency as well as minorities, women, veterans, and other under-represented populations.

## Development

To identify the appropriate classes and curriculum, NFTA and BOCES initially met with bus and rail maintenance staff who developed the selection test and had subject matter expertise regarding what knowledge and skills were required to pass. BOCES staff evaluated this information and created a curriculum and course list. BOCES already had all requisite courses but adjusted them into one program for NFTA.

## Recruitment and Selection

BOCES conducted recruitment and created flyers for the project, and NFTA distributed them at job fairs and to high school students not going to college. When NFTA was "Employer of the Day" at the Workforce Center, the project was marketed as an opportunity for people to gain more skills.

The WIB also referred candidates through the unemployment insurance system, which was a good source of candidates. Interested candidates were invited to attend a free orientation session at BOCES where they learned about the project, completed an application, and took the TABE test for reading and math; required scores were 10 in reading and 9 in math. This information was communicated on the flyer so participants had advance notice. In addition, participants needed a high school diploma or its equivalent and a valid New York driver's license and had to be eligible for a CDL Class B permit.

To reach incumbents, NFTA posted flyers in bus and rail stations. NFTA incumbents interested in participating had no specific criteria but had to abide by the Collective Bargaining Agreement related to seniority and adjust or work around their work schedules. Incumbent training could be adjusted such that NFTA employees took only the courses they needed to help them better match their skills to promotion opportunities.

Early in the project, NFTA representatives indicated that recruitment was not as successful as they would have liked, believing that word-of-mouth had not yet reached a critical mass. However, after a program extension, NFTA saw better recruitment results. It created a video (<https://www.youtube.com/watch?v=mne6arhuOc0>) that improved advertisement at job fairs and through social media and also created a radio advertisement. Despite improved recruiting, very few veterans showed interest.

**Figure 13-1**

NFTA Project Flyer

**Erie 1 BOCES**  
**Workforce Development**  
**together with the**  
**Niagara Frontier Transportation**  
**Authority**

**Electro Mechanical Maintenance**

**HOW TO ENROLL**

- Attend an orientation session ANY WEDNESDAY at 8:30 AM at the Erie 1 BOCES Workforce Development Center, 1526 Walden Avenue, Cheektowaga, NY 14225.
- There is no cost for orientation and no appointment is necessary.
- You will take a placement test in basic math and reading skills during the orientation as well as fill out an application. A TABE score of 10.0 in reading and a 9.0 in math is required for the EMM program.
- High School Diploma or High School Equivalency (HSE) is required. You must have a valid NYS Drivers' License and be eligible to obtain a CDL Class B permit.

**COURSE CONTENTS**

- The 600 hour program will cover all aspects of working in an industrial setting.
- You will learn how to trouble shoot, repair and maintain equipment in the following areas: Hydraulics, Pneumatics, Pipefitting, Sheet Metal, Basic Electricity, Industrial Electricity, PLC's, Welding, Mechanical Drives, Machining and HVAC.
- All aspects of machine safety and blueprint reading are covered.
- You will receive the OSHA 10 Certification for General Industry.

**COST**

- \$6,000 grant would apply if you qualify for employment through the NFTA.

**SALARY RANGE IN WESTERN NEW YORK**

- Entry level Electro Mechanical Maintenance Technicians can expect to earn an average of \$15.00 - \$18.00 per hour.

**Call or Go Online!**

↓ (716) 821 - 7500  
 ↓ [www.e1b.org/adulted](http://www.e1b.org/adulted)

Erie 1 BOCES does not discriminate on the basis of race, color, national origin, creed, sex, sexual orientation, age, or disability as defined by law and is in compliance with Title IX of the Education Amendments of 1972 and with Section 504 of the Rehabilitation Act of 1973.




**600**  
**HOUR COURSE**

**DATES**  
 January 8, 2018 -  
 May 17, 2018

**DAYS / TIMES**  
 Monday – Friday  
 8:00 am – 3:30 pm

**LOCATION**  
 Erie 1 BOCES  
 Workforce Development Center  
 1526 Walden Avenue  
 Cheektowaga, NY 14225

## Training

BOCES conducted an 18-week full-time job training program for new employees that included 35 hours per week on weekdays plus a 10-hour class for CDL Class B permit with bus passenger and air brake endorsement. The training course included 600 hours of Electro Mechanical Maintenance training and was generally half classroom and half hands-on. Classes were conducted at BOCES, which has a classroom, a mock garage, and welding areas with state-of-the-art equipment. Participants were not paid for training, but there was no tuition (which would be \$6,000). Classes included:

- OSHA 10-Hour Safety
- Basic Electricity
- Industrial Electricity
- Programmable Logic Controls (PLC)
- Sheet Metal
- Mechanical Drives I, II, III, and IV
- Pneumatics
- Hydraulics
- Machining
- Welding
- Pipefitting
- HVAC
- Robotics
- Resume and Employment Preparation

Concurrently, BOCES provided part-time evening classes for incumbent NFTA mechanics and electricians on two evenings per week for 3-4 hours per night.

At the conclusion of training, project participants were required to pass NFTA Mechanic and Electrician position examinations. Upon successfully passing these exams, they were offered employment or promotion.

## Bus Retrofit

The training bus retrofit provided additional hands-on mechanic and electrician training for new employees hired after completion of BOCES training. The bus involved was a life-expired bus used as a learning environment. NFTA planned to contract out retrofit services using some in-house labor and some contractors to install equipment. The bus features a ceiling-mounted projector, pull-down screen, working fare box, laptop, and drop-down tables. As of the writing of

this report, the bus retrofit was 75% complete and was to be used in-house as a training environment and at community events for recruitment.

## Outcomes

NFTA requested and received an extension for this project. Therefore, the data collected for this report are interim outcomes.

**Table 13-1**

NFTA Project  
Outcomes –  
Goal and Actual

Goal Description	Goal	Achieved*
New participants	30	No data
Incumbent participants	10	No data
Total participants	40	73 (182%)
New workers placed	30	14 (47%)
Incumbents advanced/promoted	10	No data
Bus retrofit	1	1 (100%)

\*At the time of data collection, this project had received an extension. Final results will be provided in the project's final report to FTA.

The proposal suggested NFTA would recruit 30 new participants who would complete the program and be hired and 10 incumbents who would participate and advance. As of the writing of this report, NFTA had 73 participants in the program (no breakdown of incumbent and new participants), which was 182% of the 40 expected. NFTA reported hiring 14 new workers, and participants included a number of minorities (25%) and women (4%), although not quite at the 50% level they had hoped to recruit.

NFTA representatives indicated that there was a natural attrition rate from training, as some participants acquired skills and then used them to take other opportunities; this was partly because NFTA had a lower pay rate than other comparable positions. However, following a contract negotiation, the salary was somewhat more competitive and benefits were very good, which may have helped NFTA hold on to participants after training.

In March 2018, the bus retrofit was 75% complete, with a year of the project remaining and was on track to be completed on time.

## Budget and Matching Funds

The ITWDP provided \$303,000 in Federal funds (50%), which was \$100,000 less than the original proposal; therefore, the number of participants NFTA expected to train was reduced. The project proceeded as expected, although NFTA hoped to train more people faster in the beginning. The bus retrofit cost less than originally expected. Matching funds were a combination of BOCES and in-house staff time dedicated to activities such as recruitment.

## Impact

This was a new project for NFTA. According to its representatives, the primary impact for NFTA was that it was getting younger maintenance technicians on staff. They note that this change was very positive, as NFTA has an older bus fleet and keeping buses on the street is mission critical.

In addition, having younger technicians helped its succession planning; NFTA must have people on board and ready to move up or their staffing problem will continue.

The project also impacted the lives of participants that see it through. During what were difficult economic times, a number of people increased their skills in a program they might otherwise not have been able to afford. Also, NFTA employees got the opportunity to increase their skills.

NFTA representatives note that they will be able to use the bus as a recruitment tool.

## Lessons Learned and Recommendations

Key lessons learned and advice offered by NFTA representatives to those wishing to implement a similar project include the following:

- NFTA increased recruitment. Social media has changed things, and NFTA made a concerted effort to get information out about who NFTA is and the benefits of working or having a career here.
- A competitive wage is critical. NFTA will train people for other jobs in the area if the organization cannot retain them once trained.
- NFTA's program helped people without means get a practical vocational education. Higher education may not suit everyone, and program participants realized there is something for them.
- Partners are very important. With the WIB and BOCES, this program expanded its reach.
- It is valuable to show people what a day in the life on a job is like so candidates can see that there is a great career at the end.

## Conclusion and Further Investment Recommendation

The NFTA project appears to have created a strong program that fills multiple needs. The project led to 14 new hires for a position that had many openings and expected retirements. The impact was that old buses will remain running for the agency and the community.

This project is another example of a successful collaboration among an agency, a workforce program, and an education partner. Recruitment helped with efforts to reach into minority and female talent pools, although not as deeply as hoped. NFTA brought on a new person to help with recruitment.

This project was effective and worth replicating for others facing similar staff shortages. However, NFTA and any agency using such a project should determine if they are competitive in compensation and the extent to which participants are lost to other opportunities after training, as training employees for other employers is a losing proposition. Perhaps there are ways to garner increased commitment and linkage between participants and NFTA such as mentoring or working part-time on-site during training as other programs have done.

SECTION  
**14**

## Greater Cleveland Regional Transit Authority (GCRTA) – Career Pathways Program

### Background and Problem Addressed

The Greater Cleveland Regional Transit Authority (GCRTA) is a public transit agency in Cleveland, Ohio, servicing the surrounding suburbs of Cuyahoga County. GCRTA operates throughout 59 municipalities spread over 458 square miles, servicing a population of 1.263 million. It employs 2,302 people to provide public transit in its service area and operates the only rapid transit rail service in Ohio, including both heavy and light rail trains.

The Greater Cleveland area is characterized by high unemployment and low-income, low-skilled individuals. According to the Bureau of Labor Statistics and the Bureau of Economic Analysis, the employment growth rate is significantly lower for northeast Ohio than that of the national average, and the unemployment rate is higher than the national rate. In addition, the population has low rates of educational attainment, with Census statistics indicating that more than 23% of Clevelanders (age 25 and older) lack a high school diploma and only 14% have a college degree. There has also been a loss in population in the area, reducing the number of viable candidates for employment.

GCRTA needed employees with the skills required to safely deliver high-quality service and leaders with the vision and determination to create lasting change. As of January 2014, many employees were retirement-eligible, including 24% of full-time bus operators, 33% of electronic technicians, 58% of equipment body mechanics, 20% of equipment technicians, and 25% of rail equipment mechanics, in addition to 37% of senior management staff (Director and above). Faced with these retirements as well as many employees who will soon be retirement-eligible, the lack of a skilled and educated workforce, and population decline, it is difficult for GCRTA to fill open positions with qualified candidates.

### Proposed Workforce Solution

GCRTA's Career Pathways Program (CPP) is a workforce development project that provided economic growth and ladders of opportunity for Greater Cleveland residents to enter the middle class. It was designed for new transit entrants and targeted low-income, minority, veteran, and female persons, creating entry-level opportunities coupled with evidence-based training programs.

The CPP developed pathways to long-term careers in four ways—through the introduction of career opportunities to new entrants as mechanics and electrical maintenance workers or bus-operators; by hiring college students as interns for future recruitment into the transportation industry; by recruiting recent college graduates through the Management Development Program (MDP); and by enhancing skill development for existing middle managers through the Public Transit Management Academy (PTMA).

## Partnerships

The GCRTA was formed in 1975 and defines its mission as providing outstanding safe, reliable, clean and courteous public transportation service throughout the Greater Cleveland area. Throughout the years, its exemplary service has been recognized with a variety of awards and accolades. It served as the lead agency for the CPP as well as the fiscal agent and the employer partner.

El Barrio Workforce Development, a provider for Cuyahoga Jobs & Family Services, is a partner of Ohio Means Jobs and is a program of the Centers for Families and Children, a non-profit social service organization dedicated to low-income families with children; it serves as the recruitment and screening arm to CPP. El Barrio provided outreach and recruitment services, targeting a population that included women, minorities, persons with disabilities, and veterans. Once candidates were identified, El Barrio provided individualized and intensive services to support candidates during training, which included four weeks of full-time job readiness programming with a focus on customer service. It also conducted aptitude testing, background checks, and drug screening and would refer pre-screened, qualified, and diverse candidates to participate in the training and internship programs offered by GCRTA. El Barrio also provided case management for each participant.

Cuyahoga Community College (Tri-C) is a local community college that provides education and training for electrical and mechanical programs and offers training to obtain a temporary CDL, career fields identified as areas of pending workforce shortages due to retirements. Candidates selected by El Barrio were placed in one of three accelerated Tri-C training programs, and Tri-C conducted training for mechanic, electronic repair technician, and bus operator positions. The mechanic and electronic repair technician trainings were a condensed, concentrated program over an eight-week period; training for bus operators consisted of a 30-hour course in which participants received training to obtain a temporary CDL.

Cleveland State University's Maxine Goodman Levin College of Urban Affairs (CSU) is home to six undergraduate degree programs, five graduate programs, an interdisciplinary doctoral program, and several certificate programs. Research centers and programs provide engaged research conducted by faculty and staff,

often with the involvement of students. In 2012, CSU and GCRTA partnered to create the Public Management Transit Academy (PTMA), designed to enhance leadership and management skills for GCRTA employees. CPP extended the partnership further by creating internships for CSU students and exposing them to transit-related positions. GCRTA also partnered with CSU to identify undergraduate and graduate school candidates within the targeted demographics for entry-level managerial positions for MDP internship positions. CSU also provided leadership training for the Public Transportation Management Academy (PTMA), and GCRTA used CSU to implement a PTMA program for leadership training opportunities for the existing workforce.

GCTRA had a prior relationship with all three partners. CSU had been involved with the PTMA for several years, El Barrio has been helping with recruiting since at least 2003, and Tri-C has helped GCTRA with front-line supervisor training.

As a result of prior experience, the partnership formation went smoothly, with the exception of some minor contractual details that were worked out. Tri-C had to adjust how students were brought into its program.

The CPP started with the PTMA, so a kickoff meeting was held with that program first. Thereafter, there was a kickoff meeting with all partners to discuss how to integrate all of the pieces. The team determined that calls every other week were needed for updates and problem solving.

## Project Implementation

### Outreach and Recruitment

El Barrio and GCRTA distributed flyers to communities and on buses that directed interested people to the El Barrio website. CPP staff provided outreach at churches and schools before each cycle of training. GCRTA also used its regular recruitment efforts, particularly for operator positions, with open houses, with some applicants referred to El Barrio to determine if they were appropriate for CPP. CPP staff held information sessions every Friday to assist interested people in finding employment with them, and orientations to the programs were held on Mondays. Tri-C also referred candidates to El Barrio for assessment.

During recruitment, the CPP team tried to ensure they did not miss potential candidates, trying to correctly determine the line between a viable candidate who needs help and one who was not able to complete the program. If a person might need some extra weeks to prepare, it could accommodate that (e.g., non-native English speakers who may need help in the classroom). For others, there was evaluation of candidates who may be more appropriate for one program over another so they could be moved to the best fit.

For the PTMA, as in the past, GCRTA had an internal application process for all employees. Applicants submitted a resume and a letter of interest and a supervisor endorsement. A team from Human Resources, Management, and Budget made selections for two groups in 2016 and 2017.

GCRTA has run its Management Development Program (MDP) every two years since 2008. GCRTA recruits up to five people to take part in a 22-month rotation to learn about all parts of GCRTA. Participants are usually graduates of bachelor's or master's degree programs. It started recruiting in 2016 and found eight people to work as management development interns in 2017, which was narrowed to four who became permanent hires for the full time MDP. In early 2017, GCRTA held recruitment information sessions at local universities (Bowling Green, Ohio State, Cleveland State) and also identified candidates from out of state (e.g., Rutgers).

### Screening

El Barrio conducted external candidate screening, assessed initial eligibility, tested for mechanical aptitude, and performed background checks and drug testing. Candidates received employability training, which included four weeks of full-time (120 hours) job readiness programming with a focus on customer service. Participants interviewed with GCRTA on-site at El Barrio, which distributed materials for candidates interested in the training programs, and GCRTA's Mechanics instructor and hiring manager interviewed the candidates and explained what they expected and what the job is like to ensure there was a match. PTMA and MDP candidates were screened by GCRTA staff, as described above.

### Bus Operator Training

Bus operator training was designed to give the participants a temporary CDL permit. To be employed as a part-time operator, GCRTA requires at least a temporary CDL because operators begin driving quickly. TRI-C had a trucking CDL program, and the instructors created a three-day training (passenger, air brake), for which GCRTA loaned buses. El Barrio and GCRTA helped participants obtain a temporary CDL and apply for the part-time operator positions. If they were eligible and passed the selection process, participants were hired for Operator Training (50 days of classroom and hands-on experience), after which they received a full CDL while also learning about customer service, fares, emergency training, mechanical situations, and routes. Two rounds of bus operator training were conducted through the CPP.

### Mechanic and Electronic Repair Training

Mechanic and Electronic Repair training was conducted by Tri-C. At GCRTA's request, Tri-C created a condensed program, consisting of 160 hours of training

for an 8-week period. Upon completion, participants were hired by GCRTA to begin on-the-job training as interns, consisting of a 40-hour work week over a 12-week period. Most classes for Mechanical and Electronic Repair were held in Tri-C's United Technology Center on the Metro Campus of Tri-C. The United Technology Center has a shop floor with all normally-used equipment to allow for hands-on instruction. GCRTA and El Barrio closely followed participants in the project. If they could not pass or had behavioral problems, they were not accepted into the on-the-job training internship. Two rounds of Mechanic and Electronic Repair training were conducted through the CPP. Participants were not paid during the eight-week training at TRI-C, but those who completed the training and began their on-the-job training as interns were paid \$12.50 per hour.

### Public Transit Management Academy (PTMA)

The PTMA was held at Cleveland State University (CSU). CSU staff conducted 9 sessions and GCRTA staff led 6 sessions, for a total of 15 sessions. Participants worked in groups and were assigned a Capstone Project, a small group project that identified and addressed one of GCRTA's operational needs. Upon completion of the program, participants received a certificate from both GCRTA and CSU. In addition, they could be eligible to earn college credit toward a bachelor's degree. The Capstone Projects could continue to further address GCRTA's operational needs even after the PTMA ended. Two rounds of the PTMA were conducted during the project in 2016 and 2017. (For more information on the PTMA, see the Evaluation Report for the 2011 Innovative Transit Workforce Development projects at [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Report\\_No.\\_0094.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Report_No._0094.pdf).)

### Management Development Program (MDP)

The MDP internships consisted of 10 weeks of on-the-job training and rotations. A number of participants are selected for the permanent 22-month internship to become permanent employees. Participants were assigned to a department in Operations and given a project or program to manage during that period. GCRTA staff evaluated them periodically to monitor progress. Participants were integrated into the activities of the business unit, and interns were paid \$17–\$20 per hour.

One intern was placed at Hayden District bus garage, the largest district in terms of employees and miles served. The intern was given a vehicle cleanliness project supervising bus cleaners and challenged with improving bus-cleanliness metrics. The intern evaluated the existing process and determined how to improve the process. GCRTA has since replicated those changes at the rail facility for trains as well. Another project was a paratransit project regarding pick-up locations being unclear when picking up from a hospital or nursing home. The intern developed a book of common site locations that identifies specifically where to pick up

and drop off, which helps operators and sets expectations for passengers. Two rounds of the MDP were conducted during the CPP in 2016 and 2017.

## Outcomes

GCRTA's CPP proposal set forth a number of specific numerical goals for participants and outcomes, as summarized in Table 14-1. At the time of the interview, GCRTA had not yet completed the project, which ran with an extension until September 2018. As of this report, GCRTA planned to conduct more bus operator training.

**Table 14-1**  
GCRTA CPP Outcomes  
– Goal and Actual

Goal Description	Goal	Achieved*
Bus operator training	60	48 (80%)*
Bus operators hired	40	23 (58%)*
Electrical and Mechanical training	32	34 (106%)
Number hired into internship	24	25 (104%)
MDP interns recruited	16	15 (94%)
MDP interns hired	13	4 (56%)
PTMA participants	60	56 (93%)
Retention from PTMA participants	100%	91% (-9%)
Promotion of PTMA participants	-	8 (14%)

\*GCRTA had roughly 3 months left on project and still planned to train more.

GCRTA reached 80% of the number of operators it intended to train and almost 60% of those it intended to hire, but representatives noted they were still training more.

In the Electrical and Mechanical training portion of the CPP, the project slightly exceeded the intended numbers to be trained and hired into internship positions (on-the-job training at GCRTA). The breakdown slightly favored Mechanical over Electrical. From the internship, participants can apply to be hired full-time; four were hired, and more were participating in the GCRTA's hiring process.

The MDP summer internship for college students planned to bring in 16 participants; they came close with 15 (94%). This was, in part, an intentional choice by GCRTA in terms of selecting the most appropriate candidates. (There were more applicants who were not included.) Of those who participated, four were hired full time, a little less than the goal of retaining 80% (13).

The PTMA ran two sessions with 30 and 26 participants each, which was 93% of the 60 possible. Retention from those participants was 91%, which is commendable. Moreover, approximately 8 people from the program were promoted (20% from the first session in 2016 and 8% from the 2017 session).

## Budget and Matching Funds

The ITWDP provided \$407,690 in Federal funds (50% of the total). The majority of the budget went to the partners for training and to salaries for participants during internships. GCRTA met its matching requirements with salaries and benefits, advertising, and matching FTA contributions to the training and intern salaries.

Representatives indicated that the project generally went as expected, particularly because of experience with the partners and with running some of these programs. It requested several extensions of the project performance period and was able to complete the project on budget.

## Impact

For GCRTA, the recruitment process needed to be broad, particularly for positions of need or those with high turnover, including operator and mechanical or electrical repair portions of the CPP. The CPP provided GCRTA a chance to reach people it might not have seen on normal job postings. The project also gave GCRTA an opportunity to engage the community to help explain what GCRTA does and the types of positions available. El Barrio also reported to the GCRTA representative that for participants who complete the training and begin the internship/on-the-job paid training, it can be life changing.

The PTMA allowed GCRTA to promote more from within. Many in the workforce want to know how to develop and what their path is to progress within the agency. When GCRTA groups completed the previous iterations of the PTMA (2012 and 2013), employees asked when it would take place again. PTMA has given staff a real path to promotion and exposure to other areas in the agency because people from all over the agency meet and mix during the program.

The overall impact of the CPP, according to the representative, has been to give the agency a holistic view of workforce development. This project provided training for managers and potential leaders with PTMA and MDP, but also showed that GCRTA can train front line employees on a consistent basis to help create a deeper candidate pool.

The union was aware of the CPP; its primary concern was that CPP graduates would compete for permanent positions on an equal footing with others. ATU members have appropriate access to positions at GCRTA, and the union understood that the entry-level pool of labor is shallow and there is a need for these types of programs.

## Lessons Learned and Recommendations

Key lessons learned and advice offered by GCRTA representatives to those wishing to implement a similar project include the following:

- GCRTA had to extend the program. Ideally, the program would be spread over a longer period of time to allow maximum recruiting and opportunity to hold cycles of training.
- For entry-level training, the agency is considering making the training longer to give each class/group room a break between training, internship, hiring, etc.
- Part of the desire to spread out the training is to provide time for positions to open up; otherwise, all participants are competing for a few spots that might be open at that particular time, but over time more positions will become available.

## Conclusion and Further Investment Recommendation

GCRTA's CPP offered workforce development along several dimensions—providing management development for incumbent employees, building the stream of leadership talent with the college intern management development program, and providing entry-level training for operators and electrical and mechanical technicians in areas of need.

By working with partners, continuing to run and perfect existing programs such as the PTMA or MDP, and creating new condensed front-line training, the program demonstrated the powerful combination of a community workforce partner, an education partner, and the agency employer working together.

Other agencies can replicate almost any portion of the CPP or, with commitment, the project overall. This project met workforce development needs across all levels of the agency with quality training and, as a result, is worth further investment.

SECTION  
**15**

## Grand Gateway Economic Development Association (GGEDA) – N2N Automotive University

### Background and Problem Addressed

Grand Gateway Economic Development Association (GGEDA) is a cooperative created by local governments (cities, towns and counties) to serve local governments. GGEDA serves the 7 northeast counties of Oklahoma, encompassing 53 cities and towns, an area known as “Green Country.” Counties in the Grand Gateway area include Craig, Delaware, Mayes, Nowata, Rogers, Ottawa and Washington. A service of the GGEDA is Pelivan Transit , a Section 5311 rural public transit system owned and operated by GGEDA and the contractor for two 5311c Tribal Transit programs. The Pelivan Transit system has a fleet of 61 transit vehicles covering a 4,299-square mile area; in 2013, it traveled 1,336,944 revenue miles and provided 244,731 passenger rides. The large service area necessitates constant tire and vehicle maintenance and experiences high fuel consumption to meet the demand-response transit services for Pelivan.

The automotive service and repair industry has identified a tremendous shortfall in skilled labor, and the Northeast Oklahoma WIB has identified an even higher unemployment rate in the region compared to Oklahoma as a whole. Ottawa County had the highest unemployment rate in the state, at 6.5%. The Economic Policy Institute reported the American Indian unemployment rate nationally at 11.3%, and American Indians have endured five years of unemployment rates over 10%. The 2007 US Census reported that 6.3% of businesses in Oklahoma are American Indian, accounting for 16% of the region’s total population. There is a need to increase the percentage of American Indians and other targeted sectors employed in the automotive and transportation service industries through certification and workforce development. Incumbent workers also need training for CDLs to enable them to retain employment, but no funds have been available for this training.

### Proposed Workforce Solution

The Nation-to-Nation (N2N) program was designed to coordinate with existing entities willing to share their resources and expertise in their commitment to develop job opportunities for participants in this project. N2N proposed to offer a fast-track learning opportunity to connect students with a higher propensity

for success with gainful employment. This project connected tribes with a driver training program that addressed transit safety, drug and alcohol testing, ADA compliance, wheelchair securement, emergency preparedness, and the use of many resources, including the National Rural Transit Assistance Program. N2N was slated to be a business incubator that created more American Indian-owned businesses in the tire repair industry and created career opportunities and training for American Indians in the transportation (transit) and automotive service industries.

## Partnerships

GGEDA's Pelivan Transit, a rural public and tribal transit system, it serves a seven-county region in northeast Oklahoma. It encompasses the city of Owasso with the surrounding area in northern Tulsa county and ten tribal jurisdictional areas. Pelivan Transit served as the lead agency, fiscal agent, and a collaborating partner and provided trainers and an on-the-job training site.

N2N Automotive is an enterprise of the Eastern Shawnee Tribe of Oklahoma and Cabin Diesel Services, Inc. (a private Oklahoma corporation) and is a minority-owned business. It provided the administrator and dean of N2N Automotive University as well as trainers, classrooms, and on-the-job training sites.

The Northeast Technology Center (NTC) is a public career and technology education center that is part of the Oklahoma Department of Career and Technology Education system. NTC was a contractor for N2N University and provided trainers, training materials, and certification programs.

Cabin Diesel Services, Inc., is a private corporation that operates an automotive service center, RV park, and storage facility. It served as a contractor for N2N University, provided a trainer (Automotive Mechanics I and II – Diesel), and served as a training site.

Tulsa Gas Technologies, Inc., is a private company dealing in CNG sales and service. It served as a contractor for N2N University, providing a trainer (Automotive Mechanics I and II – CNG) and a CNG equipment technician and serving as a training site.

Workforce Oklahoma is part of the Oklahoma Employment Security Commission and is responsible for administering Labor Exchange programs and services to employers and job seekers through local Workforce Oklahoma Centers strategically located throughout the state. It provided DESI and Assessment testing for N2N Automotive University for student enrollment, coordination of job placement services, and candidate referral to the project.

The Northeast WIB is a non-profit workforce development initiative. Serving designated counties in northeast Oklahoma, its Board is charged with serving the needs of job seekers and employers. It acts as a convener and collaborator to better align workforce resources in education and economic development and provided oversight and strategic direction for N2N Automotive University.

As of the data collection for this project, Cabin Diesel had no collaboration. It was to provide a diesel program, but N2N did not reach that milestone, primarily due to lack of student interest. The same is true for Tulsa Gas Technologies; instead of sending participants there for CNG training, using Pelivan's Maintenance Manager, who was licensed with CNG, was a better fit and more cost-effective. Using the Oklahoma State University partner to host a three-day CNG certification program also was more cost-effective.

For the other partners, Pelivan had experience and existing relationships. Arrowhead Automotive, a sister company, is owned by N2N. NTC helped develop the curriculum. Pelivan worked regularly with Workforce Oklahoma, which referred candidates to Pelivan if they met criteria and taught employability skills, including weekly and assessments. The Northeast WIB provided updates at its monthly meetings and supported Pelivan and, during the course of the project, was selected to be a training provider for the entire state.

There were no problems forming the partnership. Communication took place through continuous contact via e-mail, conference calls, and roundtable discussions. An office at Grand Gateway was provided for the project manager, which enabled constant communication. The full team tried to meet monthly.

## Project Implementation

### Project Development

The curriculum was developed by N2N, which had some ideas on how it wanted to structure the project based on how Arrowhead Automotive works; the project was built on that basis. Curriculum development was contracted to an employee with expertise in the area and by using Pearson information (e.g., Automotive MyLab with extracurricular activities). The curriculum focused on industry standards and certifications that would make the project attractive to participants and the graduates attractive to employers. For example, a Hunter alignment (tire industry certification) class was included, and BG Products provided a class monthly, both of which are nationally-recognized industry certifications; after four months, participants had recognized credentials. Participants that finished had a portfolio that included their resume, letters of recommendation, training provider certifications, and a Work Keys score report. The course was designed to provide 29 certifications when completed. Based on feedback from local auto service shops, participants were trained to the Auto

Tech II level. Also, if participants did not have a high school diploma, a GED class was included through the NE OK Workforce Board. Participants were accepted without a GED, but N2N staff made sure they had it before they graduate.

## Outreach

The targeted groups for this project included low-income minorities, with a focus on American Indians, women, veterans, and persons with disabilities. Pelivan's programs usually attract 80–85% Native Americans, with some African American and some Hispanic participants. Tribes regularly spoke about the project at local meetings, sharing success stories and information, and sent students to CDL training. Monthly newsletters were sent, as were press releases, student photos, graduation photos, and other information. Newspaper ads were used to promote the project, as was one-on-one field work. N2N representatives visited job fairs, career fairs, veteran events, and colleges and handed out flyers and brochures; they also advertised on social media, including <https://nativenewsonline.net/currents/n2n-university-opens-big-cabin-ok/> and a Facebook page. N2N Automotive posts its jobs on those sites, so applicants were encouraged to consider the training if they did not have the skills.

## Equipment and Staffing

In the proposal, N2N planned to purchase equipment; however, Pelivan and Grand Gateway already had all the classroom equipment needed, so it invested in toolboxes specifically for the project. It had a timing machine and balancer for the Arrowhead Automotive location for internship use. For the CDL program, it purchased a semi-truck and rented a trailer. As much equipment was already available, it did not need to purchase as much as initially planned. It also staffed the project, including the project manager and one full-time and one part-time instructor (for the CDL class). It also contracted for services such as human resources, accounting, marketing, curriculum development, and management.

## Selection and Testing

To participate, candidates must be age 18 or older and pass an interview process. Because the goal was to place graduates into employment, the interview process replicated an employment interview process. The first interview was with the Program Director. Candidates were then tested using ProveIt! software to assess how technically advanced they were. Ideally, they scored 70% or higher (although they were not rejected if they did not). Next, the candidates interviewed with Human Resources, where placement specialists evaluated their employability; this interview focused on job history, interview skills, barriers to prevent placement, and openness to coaching. The next step was a pre-background check. In Grand Gateway, participants had a DOT-regulated background and drug screen and a DOT physical and drug screen.

Once all candidate results were received, the N2N team evaluated them. Only problems with their backgrounds (criminal) and drug screen results prohibited applicants from participating. Individuals with major criminal issues and DUI/DWI that prohibited getting a CDL were not able to participate; however, this was not a problem for the project. N2N used DOT standards; if it was found that a candidate had minor court involvement but could hold a job, N2N accepted them. N2N accepted participants who had difficulties obtaining employment because of their court involvement. Without this N2N project, certain court involved applicants would not be hired for a job. Participating in the N2N training enabled job obtainment.

Participants received Work Keys and KPI motivation assessments, which assessed five core motivations—competitive, goal-oriented, dependable, problem solver, and team-oriented. This helped determine how to coach participants based on their key motivations and how to work around areas in which motivations are not strong. For example, if a student was competitive, instructors could use that for coaching. Problem-solving is very important for automotive service, and those motivated to solve problems could make good mechanics, so they might gravitate to diagnostics.

## Training

The training lasted 12 weeks and began with new student orientation, with new students purposefully beginning on the same day the prior class was finishing. The students learned what to expect and met graduating participants. The classes began with basic shop safety; participants received training books, became oriented, and passed a safety test before going out into the shop.

Participants then began the basic maintenance course, learning how to complete oil changes and flushes, learning BG, and getting log-in credentials for the BG Dashboard to access homework. Tire training took place at Pelivan on commercial tires; participants went to Tuchumsa for farm tire instruction. Brake and power steering training followed for several weeks, and suspension and hunter alignment training was three days. They then progressed to electrical work such as diagnosing, scanner tools and diagnostic tools, electrical components, and lights, then to mobile air conditioning system training, which is required by some employers to work on HVAC systems.

At about the halfway point, instructors generally began to understand which participants were excelling in areas and might promote candidates to specialize in their strongest area (e.g., front end, brakes, electronics, or basic maintenance). The employability and job placement team spoke with participants about the kind of work they were most interested in and where they wanted to work, and the program tried to find positions that matched their interests.

Toward the end of the training, participants began working for Arrowhead Automotive for internship training. After the 12 weeks, they had three weeks to reinforce what they learned and were treated like employees, expected to be on-time and professional.

During the 16th week, instructors helped with resumes and set up interviews with prospective employers. Participants performed mock interviews with the job placement team and learned to promote themselves and get feedback.

### CDL Training

The program offered CDL training, a four-week program separate from other training. Participants went through the same screening process as for automotive training, except for drug screening and a physical, which was done at a partner location. They were required to pass these tests to obtain a medical card required to take the CDL test. The testing was performed before the course began to ensure they could take the test and be employable.

The project director provided study materials so participants could familiarize themselves with the CDL manual, and an orientation was conducted to discuss the class and policies. Instructors conducted the classroom portion geared to information on the written exam—general knowledge, air brakes, and passengers. Once they passed the test and received a permit, class took place on a private property of the Eastern Shawnee Tribe, where participants became familiar with trucks and worked on backing skills and other specific skills needed for the testing. N2N staff took them to Qulpaw, where abandoned roads were used to learn shifting and other driving skills. After four weeks, they were tested; the instructor (a former examiner) set up test dates and locations and participants were tested on pre-trip inspection, backing maneuvers, and a road test, which they were required to pass to get a CDL license.

N2N representatives noted that they sought the advice of employers who noted the need for employees with a CDL and the expense involved. Even employees who spray or cut brush required a CDL, which prohibited employers from having more crews operate. Employers would pay for employees to take the exams, but without enough hands-on training and failing at a high rate multiple times. The N2N project knew the maneuvers required and required participants to practice them repeatedly, resulting in a passing and placement rate of almost 100%.

### Start-Up Business Training

Although the proposal suggested an interest in providing start-up training for entrepreneurs, this training was not provided during the N2N project. The idea was suggested to participants, and there was a curriculum, but no one committed to it. The N2N representative believed it might have been relevant for one or two students, but they were not ready for this step. One person

expressed a desire to return and get the training, but believed they needed experience in a shop first.

### Support

Participants were not paid during the training. N2N staff discussed with participants how they planned to support themselves during training, how childcare or other responsibilities would be taken care of, and their commitment to the project. Programs were available to assist participants during training, and N2N staff and partners helped them get unemployment and other services. Workforce Oklahoma helped provide access to support services, such as TANF, Medicare for kids, etc.

### Placement

Placement was accomplished in several ways. N2N staff looked to internal partners that might need staff, and the Eastern Shawnee tribe owns a staffing company and was continually looking for jobs and people to place. Often, placement was based on relationships N2N staff built.

Overall, N2N representatives indicated that the project operated smoothly after some initial delay due to location problems. N2N staff originally believed a location they were building would be ready for the project, but it was found it needed to be in operation for two years before the location could receive accreditation and had to meet the several guidelines as a private vocational school. Pelivan had a facility, so that was used for the project. Thereafter, things progressed, but the slow start necessitated a brief extension of the project.

### Outcomes

GGEDA's proposal for the N2N Automotive University suggested a number of metrics that would be tracked and monitored, but not specific outcome goals.

**Table 15-1**

GGEDA N2N  
Project Outcomes –  
Goal and Actual

Description	Goal	Achieved
Automotive training	-	11
Certifications	-	319 (29 each)
CDL training	-	11*
CDL certificates	-	9*
Job placements	-	21

\*Two participants still in training

The N2N project was not large, but it had a very high success rate, perhaps due to the individualized attention paid to each participant. It noted that one participant was dismissed from the project, but it was able to find placement for that person and provided a modified certificate, ultimately resulting in 21

placements for 20 participants. The project was successful at getting participants trained, providing multiple certifications (29 for each participant), and finding placements for them upon graduation.

## Budget and Matching Funds

The ITWDP provided \$399,933 in Federal funds (29%), which was about \$50,000 less than requested. Adjustments were made by removing some capital expenditures. Most funding was used for salaries and benefits, books, and materials. GGEDA's matching was roughly 70%; the more than \$1,700,000 in proposed contributions as property and equipment would have made their contribution much higher than 70%. Originally, the project expected to involve more capital expenditure on equipment and property upgrades, but it was decided not to include this in the project, and the proposed budget was later modified to focus more on tuition for participants; therefore, it was not included in the 29% Federal contribution calculation.

## Impact

N2N representatives suggested several areas of impact for the project. For workforce impact, employers or those that hired graduates were happy with their hires. The CDL drivers performed very well and were able to learn the specific approach of their employers based on their solid foundation. Employers appreciated that N2N students were coachable, and automotive maintenance students were also well-regarded. The employers called periodically looking for more graduates from the program. Pelivan Transit was the sole transit employer.

For students with situations of financial instability, the project helped them become self-sustaining, with full time jobs of their own. Community relationships became very good. The Tribes and Education Directors and Business Committee members praised the project and recommended students, and there were referrals from out of state, as far as Alaska. If the individuals were tribal, they could be accommodated.

At the close of the project, N2N was trying to determine the level of sustainability. It needed accreditation for its new location to use a particular Federal funding source, but it was not able to apply for accreditation prior to completion of the project. It was a statewide training provider for WIOA (DOL workforce funding), but some students were not eligible based on their circumstances. N2N planned to continue the project and expected to expand into Machine Operator training.

## Lessons Learned and Recommendations

Key lessons learned and advice offered by N2N representatives to those wishing to implement a similar project include the following:

- Look into student and funding availability, where both are coming from, and what program types provide the most flexibility (licensing, for example, gives more freedom to change curriculum and change administrative things as a school).
- Have a good team of partners—programs work better when partners have business expertise in a number of areas.
- Start from the perspective of employer needs. For any N2N programs, partners, or any expansion, N2N tried to partner with businesses to include an on-the-job training relationship and create partnerships with a training provider. Starting with employer needs and commitment up front makes placement possible at the end.

## Conclusion and Further Investment Recommendation

The N2N project was not a large project, but it was well-designed and highly successful in training and placing participants in transit and transportation-related employment. It is also served a population in need. The success of the project appeared to come from a number of places, including a front-end focus on employer needs, close partnerships between employer, education, and workforce organizations, and the project's commitment to participants. It is a project that can be replicated elsewhere and can gain from economies of scale that might not be possible. Because of the potential for up-scaling, it is worth further investment. The project was completed in 2018.

SECTION  
**16**

## Workforce Snohomish – Puget Sound Region Opportunity Project

### Background and Problem Addressed

Workforce Snohomish is a Washington State non-profit representing a broad cross section of the local community that has interest in workforce development issues. As one of the 12 Workforce Development Councils (WDCs) in Washington State, Workforce Snohomish receives Federal and private funding to oversee and operate the two WorkSource Centers in the county. These centers offer free services such as unemployment insurance information, employment-related workshops, job fairs, on-site recruiting events, and links to educational and training opportunities. Workforce Snohomish focuses on finding jobs for youths, adults, and dislocated workers. Snohomish is one of the three counties served by Sound Transit creating work opportunities for Workforce Snohomish clients.

Forecasts from the Puget Sound Regional Council and Conway Pederson Economics showed that demand for workers in construction trades in the region would increase by 13% by 2019. Results from a study completed by the Port of Seattle and City of Seattle forecast a significant workforce shortage in 2018–2019. The study did not take into account other major capital improvement programs. Expansions in light rail service would provide opportunities for jobs in the building and construction trades.

It was expected that nearly half of the construction workforce would retire as the economy stabilized, leaving an extreme gap but also providing an opportunity for new entrants to the transportation and construction industries.

There was also a significant under-representation of women in the construction and transportation industries. A Closer Look data showed that women residing in Washington participated in the labor force at a slightly higher percentage (61%) than the national level but represented less than 3% of the entire construction apprenticeship workforce. The African American population of the region faced similar disparities in its access to opportunity; Seattle had the ninth lowest income for African American households. The growth linking Sound Transit's train north into Snohomish County and south into Pierce County runs near numerous census tracts with above-average percentages of low-income population.

According to Workforce Snohomish representatives, in 2016, a study by Community Attributes, Inc., concluded that in private and public construction, there would be a tight labor market and a gap of 4–5% of demand, even before system expansion. A follow-up study showed the whole landscape had changed, and a labor shortage of 9–10% was expected, projected to peak in 2029–30.

## Proposed Workforce Solution

Workforce Snohomish proposed its Opportunity Workforce Project to bring together a consortium of eight organizations across King, Pierce, and Snohomish counties to build a pipeline of workers ready to connect to construction and transit-related apprenticeships. The project was designed to develop and provide comprehensive career training, including mechanical and technical skills, and offer support services to improve participant retention and completion. The Opportunity Workforce Project would offer access to apprenticeships and job placement programs to address the gap in construction and skilled transit workers and would conduct targeted outreach to groups such as women, minorities, and native tribes to improve access to apprenticeships, social services, and job placement programs, allowing those underserved communities to better participate in the growth of transit-related construction in the region.

## Partnerships

Workforce Snohomish has worked to create a globally-competitive workforce since 1998. It was responsible for general oversight of the grant, contracting, fiscal management, and ensuring that outcomes were met.

Sound Transit is a regional transit authority authorized to implement high-capacity transit systems within King, Pierce and Snohomish counties. It provides regional express bus, commuter rail, and light rail service within the urbanized areas of central Puget Sound. With a projected 18.3 million work hours over the next ten years, it coordinated with pre-apprenticeship training providers in outreach, recruitment, training, support, and mentoring to attract and train women and minorities for the construction industry.

Bates Technical College is a Washington State-certified institution of higher education and is accredited by the Northwest Commission on Colleges and Universities. It annually serves approximately 3,000 career training students and 10,000 community members on three campuses and manages nine Washington State-approved apprenticeship training programs, ranging from the aerospace industry to construction fields. It provided instructors and training materials and conducted outreach and recruitment events.

The Seattle Vocational Institute-Pre-Apprenticeship Training Program (SVI-PACT) is designed to assist men and women, including those non-traditionally employed in the trade, to gain the skills needed to become successful

competitors for building and construction trade apprenticeship programs. Participants learn trade skills that are relevant to the worksite of various trade occupations. It serves marginalized and under-represented populations in King County; nearly 90% of its students are women and or minorities. It established new pre-apprenticeship classes that prepared women and people of color for entry-level construction jobs and also provided classroom space, instructors, and pre-apprenticeship training materials to enhance its already-successful efforts to recruit and train new women and minority pre-apprentices.

Apprenticeship and Non-Traditional Employment for Women (ANEW) has 34 years of experience offering skills enhancement technical training that allows women to embark on career pathways that help Americans move up to the middle class and improve their quality of life. ANEW commonly exceeds its performance metrics, which include having graduates earning more than double the minimum wage. ANEW provided classroom space, instructors, and pre-apprenticeship training.

The Urban League of Metropolitan Seattle (ULMS) serves African American and other under-represented communities throughout the Puget Sound Region. It offered targeted outreach and recruitment, job-readiness training, construction/transit-related job information, and connections to pre-apprenticeship and apprenticeship programs. It also expanded its Career Bridge employment program, a comprehensive, community-centered strategy that addresses the disproportionate rates of poverty, unemployment and under-employment, and criminal justice involvement among African Americans and others of color. It brought together job readiness, workforce training, wraparound support, and grassroots support networks to assist participants attain the skills needed to secure a job and achieve personal stability as well as connections to training needed for good paying jobs that provide a pathway to longer-term careers.

TERO Construction Training Center, Tulalip Tribes is a Washington State-recognized pre-apprenticeship training program and an accredited Construction Industry Trades training site through Edmonds Community College. The TERO Center has enrolled Natives from many different tribes and states in the pre-apprentice training center. All students come from highly-disadvantaged populations. TERO's primary purpose is to ensure that Native people gain their share of employment, training, contracting, subcontracting, and all other economic opportunities on or near reservations. It was responsible for outreach and training of tribal members from the Tulalip and other tribes.

Sound Transit contacted Workforce Snohomish to determine if it wanted to participate, which is how the basic partnership came together. Workforce Snohomish had worked with ANEW and TERO in the past as training providers, and Seattle Community College had worked with Workforce Snohomish, but not vocational entities. As with any new partnership, there was a learning process

as the partners established their roles. A major challenge was the difference in systems among education, non-profit, City, and Federal organizations. It took a lot of effort to merge all of the varied business practices, given deadlines, practices, regulations, etc. There was turnover, and it took time to get staffing in place, so the beginning of the project was hectic.

The representatives for the Opportunity Workforce Project noted that Bates Technical College had challenges in matching funds. Workforce Snohomish required a cash match, not in-kind contributions, and that became a challenge for some partners that, as a result, had to drop out of the project. The City of Seattle joined as a partner to assist with matching funds. It was also noted that the project encompassed three counties and included the City of Seattle; having a City support apprenticeships was powerful. The City of Seattle, King County, and the Port of Seattle adopted priority hire legislation targeting specific ZIP codes with high poverty and low education rates, which required a certain number of people from these ZIP codes on the job of any project they funded.

To communicate, the team established a governance committee with quarterly meetings and brought Labor and Industry (the State agency certifying apprenticeships) representatives in to participate. The team developed a charter and voting rules, held quarterly meetings, and shared a drive so everyone could store and review materials. At each meeting, the team reviewed finances and performance. Because it took a while for everything to be established in the outset, an extension was required for the project. Although extended to perform beyond the original 24-month performance period, the project successfully closed in August 2018.

## Project Implementation

### Project Development

The partners each operated registered pre-apprenticeship programs, so there was some level of consistency based on the existing standards for these programs in Washington State. However, the partners each reported working with employers to get feedback about how to adjust within the established project parameters. For example, ANEW was asked to work on the physical part of construction to discuss with women participants how to work on upper body strength; others added extra math training. SVI-PACT had technical advisory committees to get feedback that met quarterly with many employers in that group and received feedback on the curriculum.

### Outreach

Each partner had an established network of community organizations, employers, construction apprentice supporters, high schools, and other places where they had conducted outreach in the past. The partners continued that

outreach and tried to coordinate on larger efforts such as job fairs, training, and places other pre-apprenticeship programs would be. The team did not create a common brochure, but the project funded marketing and outreach for individual programs. Partners marketed to underserved individuals and populations, but as individuals. Each program had its own niche, and each partner served slightly different areas; however, partners did cross-refer if it made sense. Methods included career fairs, posting ads on Craigslist, and distributing flyers to community-based organization partners and government agencies.

### Screening

Each program had its own entry requirements; there were some commonalities, such as candidates had to be age 18 and have a GED or high school diploma and a driver's license. However, because they serve slightly different populations (e.g., ANEW serves women), they had different requirements. For example, TERO took all applicants; it served a Native American population and non-native spouses and had candidates from the area as well as from Alaska and Montana. Most students served by the partners were people of color from low-income ZIP codes, consistent with the target population. Partners generally saw fewer women than men, which was a focus for this initiative.

The Colleges program had been doing drug testing as part of screening, but a court ruling suggested they stop, so they partnered with other programs. Project staff encouraged people to get drug testing done ahead of time and emphasized at entry that participants could not get a job if they could not pass a drug test. For example, transit jobs have pre-employment drug testing. TERO also normally tested with the tribes.

### Training

Different partner programs were implemented as part of this Opportunity Workforce Project. ANEW expanded its program capacity by hiring a staff person dedicated to outreach. Interested applicants attended an information session followed by an interview and overall personal assessment. A full-time, qualified instructor was hired for the project who revised the training curriculum, increased the hands-on skills learning, and ensured that all training was outcome-based. ANEW's training curriculum included:

- OSHA 10 | Industrial Safety
- First Aid | CPR Certification
- Basic Hand & Power Tool Use
- Trades Math
- Blueprint Reading
- Fitness & Nutrition for the Trades

- Flagger Certification
- Forklift Certification
- Community Service Learning Projects

ANEW also bolstered soft skill instruction, improving participants' ability to find and retain employment, and partnered with registered apprenticeship programs in the region. Participants visited various apprenticeship training facilities in the area where training partners explained their industry, taught technical and math-related lessons, and emphasized the importance of fitness. Programs also came to visit the ANEW workshops and gave one-on-one coaching that connected participants directly to the leaders who selected apprentices.

TERO's pre-apprenticeship program was 16-weeks of hands-on training. Its selection process involved an application followed by an information session that explained the length of the classroom learning in comparison to the hands-on portion of the training and set participants' expectations. The curriculum included:

- Blueprint Reading
- Trades Math
- Core Construction Skills
- Structural Trades
- Electrical
- Plumbing
- Forklift
- Foundations
- Energy Efficiency
- First Aid | CPR Certification
- Soft Skills
- OSHA 10
- Flagger Certification
- Hazardous Waste Operations and Emergency Response (HAZWOPER) training

Students earned a certificate from Renton Technical College or South Seattle Community College upon successful completion. TERO incorporated carpenter-focused training and "Dependable Strengths" instruction into their curriculum and increased the training from 14 to 16 weeks. The carpenter-focused training expanded the skills learned by the students and allowed for a direct pipeline from TERO into the Carpenters Apprenticeship program. The "Dependable Strengths" instruction taught participants self-efficacy and outcome expectancy,

which increased their chances of success in the program and beyond. TERO also expanded its soft skills training to include mock interview preparation and resume-writing.

Connection to employers was vital for TERO participants, who were taken on “Trades Rotation Days” where they visited apprenticeship training facilities opportunities; this exercise not only introduced them to the different apprenticeships available but often served as a first connection to the world outside the reservation. Additionally, speakers came to the TERO facility to talk about their programs and the benefits offered.

SVI-PACT's pre-apprenticeship program is designed to assist men and women, including those non-traditionally employed in the trades, to gain the skills needed to become successful competitors for building and construction trade apprenticeship programs. As a division of the community college system, SVI-PACT accepts all students that meet the qualifications; enrollment in the project included an application and an interview process. SVI-PACT strengthened its intake form for the project, allowing staff to learn more about each participant's barriers to success, which allowed for better planning of mitigation tactics to overcome those barriers. In addition, the curriculum was updated and strengthened for this Opportunity Workforce Project. Topics were integrated and aligned with the skills employers identified as top priorities. The SVI-PACT program was also shortened from two quarters to one, as staff realized the challenge of completing a six-month, full-time program faced by participants who need steady income and altered the curriculum accordingly. Although the one-quarter program overhaul was not introduced until January 2018, the new program ensured that the impact from the Opportunity Workforce Project continued to future SVI-PACT students. SVI-PACT participants were introduced to apprenticeship training providers through visits to their respective providers' training facilities; students had the opportunity to experience training hands-on. Additionally, apprenticeship program coordinators contacted SVI-PACT staff directly with job opportunities for direct recommendations of current students or recent graduates who were interested in the opening.

The Urban League of Metropolitan Seattle (ULMS) offered Career Bridge, a career readiness program that targeted individuals being released from correctional facilities, including work release programs, and received referrals from partners who did not provide career readiness training. Through the Opportunity Workforce Project funding, ULMS removed barriers to enrollment by creating an online application, no longer requiring a trip to the ULMS office. Individuals could apply to the program remotely in less than 10 minutes. As career readiness training, the Career Bridge program brought together workforce training, social services, and grassroots community support networks.

Using a cohort model, individuals entered and progressed through Career Bridge as a group. Participants received:

- 120 hours of training
- Community partner presentations
- Job development services
- Computer lab days to strengthen resume, cover letter and online job search

The Certifications obtained with successful completion were:

- OSHA 10
- Industrial First Aid / CPR
- Flagger certification

To provide a connection to employers and pre-apprenticeship and apprenticeship programs, Career Bridge held two career fairs per training session. Employers were also brought into the classroom to discuss working at their organization and the job duties it entailed.

### Support

One strength noted by Opportunity Workforce Project representatives was the flexibility to determine needs locally. Some types of assistance that this project provided were daycare, hourly stipends, connection to substance abuse support, food for the training center, and work clothes and boots. One representative noted that it found that without support services, apprentice and pre-apprentice participants will drop out of the project. The programs hired an extra person because it recognized that it was important to have a coordinator/leader/mentor for participants. There needs to be someone even after participants are on the job site to help, support, or make referrals to ensure they are retained in their employment.

### Outcomes

Workforce Snohomish suggested a number of specific goals the partners would collectively reach as part of the Ladders project, as summarized in Table 16-1.

**Table 16-1**

*Opportunity  
Workforce Project  
Outcomes –  
Goal and Actual*

Description	Goal	Achieved
Outreach	748	3,278 (438%)
Pre-apprenticeship training	247	444 (180%)
Support services	203	218 (107%)
Job/apprenticeship placement	119	235 (197%)

This project collaborated with system partners to articulate engagement and ensured that programs of study were included in appropriate eligible training provider lists. The project conducted outreach to reach almost 3,300 individuals, more than 400% of the goal set out in the proposal. The partners strengthened instructional materials in credit-based and competency-based formats, including curricula, syllabi, assessments, reading, online modules, updated class schedules, course catalogs, external websites, and other directories and served 444 participants through training, 180% of the goal.

The project assisted participants with daily needs to improve retention and success in the respective programs. Each participant had unique needs; the most common support services provided included transportation assistance, purchasing work clothes and necessary tools, paying union dues, and providing funding for driver's licenses and identification cards. Support services were provided to 218 people, 107% of the expected total.

The project solidified ties with committed employer partners, established clear contacts for work-based learning and implementation timelines. It created promotional materials for work-based learning opportunities and distribution to candidates and connected participants to employment prospects post-graduation. The project served 235 participants, almost 200% of the target number. Placements could be into apprenticeship programs or employment.

## Budget and Matching Funds

The ITWDP provided \$476,775 in Federal funds (50% of the total), which was about 20% less than initially requested, so the target outcomes were reduced and the budget was adjusted accordingly. Most matching funds were for outreach, training, and placement. Although initially offering more than a 50% match, this was adjusted to 50% in coordination with FTA, as some partners had difficulties providing their match.

## Impact

The Opportunity Workforce Project successfully strengthened the career pipeline into high-wage, in-demand construction and transportation jobs in the region. The project also made a difference for women and minority populations, who are typically under-represented in the construction industry. The partners together trained almost 450 individuals in pre-apprenticeship programs, improving their job skills, and placed 235 into employment or apprenticeships. These were people drawn specifically from target populations that were under-represented in transit and construction or were disadvantaged with respect to competing for those positions.

As a result of the project, relationships among the pre-apprenticeship programs improved and continued beyond the grant life. Representatives from the

programs were able to support each other and discuss both successes and failures. These relationships are ongoing, with the pre-apprenticeship training providers continuing to meet on a semi-regular basis; as a group, they have set similar programmatic standards across the board to ensure program excellence.

According to one partner, a positive impact for the transportation industry (and transit construction) is that the project gave a workforce job pathway to promote heavily for people coming through the program. Normally, the projects present information on all the programs with which they work without a focus on transportation. This project gave the transportation industry more focus on its career pathways.

The Opportunity Workforce Project will continue to help the labor pool for apprenticeship programs and could improve diversity by drawing from different talent pools. For example, ANEW alone placed 200+ women into construction apprenticeships. The 450+ participants gained new skills and received coaching and support services. Additionally, the 235 people who were placed in employment now have stronger economic prospects.

The partners presented and promoted the program and partnerships to the Governor of Washington. As a result, he offered that the State would provide half of the funding sought. At the conclusion of the project, the partners were discussing the scope of work and obtainment of matching funds to determine if the program could continue. All programs were still operating independently but hoped to work together to put more people through.

## Lessons Learned and Recommendations

Key lessons learned and advice offered by Opportunity Workforce Project representatives to those wishing to implement a similar project included the following:

- Collaboration and the ability to work across organizations was very powerful, and getting passionate people with great programs that are accountable to Federal funding was motivating. Partners that aligned to the same goal can collectively reach a large number of people because each program has inroads to different members of the community.
- Quarterly reports helped the programs do a better job of telling their story, putting together data and numbers on outcomes and stories from students. The reports could be shared with local, State, and Federal potential funders to show that the programs were working and needed.
- The impact of the project on individuals was powerful. Partners had stories of family reunification, and the programs helped people get their driver's licenses back, get a GED, or receive a diploma. The project and the support it brought helped change people's lives.

## Conclusion and Further Investment Recommendation

The Opportunity Workforce Project brought together existing pre-apprenticeship programs to focus on transportation construction jobs and to reach out to populations typically under-represented in the industry. By bringing together an employer and workforce development and educational organizations, the project successfully trained and supported a substantial number of individuals, exceeding all program objectives. The infusion of more than 230 potential employees into an industry that needs labor should help enhance the pool of skilled workers.

This project seems replicable in any area with pre-existing apprenticeship programs and is even more applicable in areas in which laws such as Washington State's exist that require the hiring of local labor or labor from under-represented groups. In areas in which these conditions are met, the project seems worthy of further investment for replication.

## Intercity Transit – Village Vans Program

### Background and Problem Addressed

Intercity Transit is a Public Transportation Benefit Authority (PTBA) operating as a municipal corporation in Thurston County, Washington, servicing approximately 180,000 citizens who live within the roughly 100-square-mile service area. Intercity Transit operates 25 routes of local and express bus services, Dial-A-Lift (paratransit services), vanpools, and a number of community support services including village and community vans, a youth education program, and travel training.

Transportation is often a barrier for low-income people looking for and maintaining employment; the Village Vans Program (VVP) was developed to address this. Intercity Transit also has a vested interest in providing job skills training to a pool of potential future transit industry employees. VVP goes beyond providing transportation; it also provides job training and work experience to individuals interested in transportation industry employment. The program provides volunteers (participants) with new skills and experience for driving a 12-passenger van picking up low-income riders to support work-related activities; these same volunteers (participants) also gain administrative assistant exposure in the office supporting the program.

Intercity Transit has made the strategic policy commitment to respond directly to this need through the VVP and has recruited participants from the VVP to become full time transit operators.

### Proposed Workforce Solution

The VVP proposes to train volunteers (participants) as operators and in administration so they can become employed in transit or transportation and non-transportation occupations. Each participant receives orientation and training, support with resume and cover letter writing, use of computers, and navigation of agency processes and systems, all activities that amount to “getting a foot in the door” for employment.

VVP costs are minimized and job-training opportunities are enhanced by using volunteer drivers and volunteer administrative assistants selected from among low-income individuals served by the Workforce Development System. Project participants come as either self-referrals or as referrals from Workforce partners. Participants are accepted for training as volunteer drivers and/or

administrative assistants for the program or qualify as clients who use VVP services. Three vans operate by providing transportation service taking clients to jobs, job search activities, employment training, or other employment support destinations (such as child care, medical appointments), which may be difficult or impossible for them to access without Village Vans.

## Partnerships

Intercity Transit is a municipal corporation that provides public transportation for people who live and work in Olympia, Lacey, Tumwater, and Yelm, an area of approximately 100 square miles. It operates 25 bus routes, a door-to-door service for people with disabilities, a vanpool program, and a specialized van program and is active in community partnerships. Its mission is to provide and promote public transportation choices that support an accessible, sustainable, livable, healthy, prosperous community.

Intercity Transit's VVP was originally implemented in 2002 to remove transportation barriers to employment for low-income residents. The program changed with the addition of on-the-job employment training provided to their volunteer drivers and volunteer office workers. The volunteer drivers received training on operating passenger vans and the volunteer office workers received training on managing and working in an office. Intercity Transit was the lead applicant, fiscal agency, project manager and employer for this project, which augmented a previously-existing project.

WorkSource is a statewide partnership of State, local, and non-profit agencies that provide an array of employment and training services to job seekers and employers in Washington State. Its clients access services electronically through the WorkSource online portal or through a network of more than 60 WorkSource centers, affiliates, and connection sites. Local WorkSource partnerships with the VVP include consortia support from social service providers such as Washington State Employment Security, South Puget Sound Community College, and the Department of Vocational Rehabilitation. Through the partnership, VVP is identified as a transportation resource supporting job seekers and employers and as a separate job training opportunity. WorkSource introduces its customers to the program, posts and promotes program information and marketing literature, refers customers to the program through one-on-one consultations with core service staff, and supports and encourages participation by VVP staff and volunteers at career fairs and employment opportunity workshops.

The Pacific Mountain Workforce Development Council works closely with local community colleges to develop training courses leading to jobs in demand occupations. Dislocated workers, low-income adults, and youth enrolled in WIOA programs also receive financial support for tuition and books while

enrolled in college, along with case management support to help them find an internship opportunity in their career field. Pacific Mountain coalition partners use VVP to reduce the transportation barriers faced by its clients and employers within the referral programs. They support the project through outreach, referral of customers to the program, and informing VVP staff about career fairs, social service forums, and employment opportunities for program volunteers, as well as coordinating monthly meetings with social service agencies and community members involved with unemployment, job search, placement, career development, training, and education. VVP staff attended and participated, offering transportation barrier solutions and work experience opportunities at Intercity Transit.

The Washington State Department of Social and Human Services (DSHS), Olympia Community Services Office is an active participant in the regional workforce development activities. It recognizes VVP as a job skills development program as well as a reliable transportation option for candidates who otherwise might not have access to jobs without access to transportation. DSHS assists the program by distributing program marketing literature, supporting orientation meetings daily to provide program opportunities to DSHS/recipients, informing attendees of free transportation for transitional work support activities through the program, and discussing volunteer opportunities with Intercity Transit for those who qualify. Volunteer positions meet DSHS/TANF required work activities while receiving Federal assistance.

## Project Implementation

### Outreach

Outreach for the VVP is conducted in a number of ways. First, Intercity Transit has a brochure on all of its buses and information on its website about the program and distributes brochures to approximately 150 locations such as churches, libraries, and other community organizations and partner locations. Project representatives attend job fairs and meetings of organizations that work with this population. Intercity Transit also has a marketing department that markets all Intercity services, and they cross-promote.

### Selection

Volunteer van driver candidates typically are referred from WorkSource partners. To be accepted, volunteers are vetted. Volunteer driver requirements include a good driving record (required by Washington State Insurance Pool and Intercity Transit) and a Washington State criminal background check. Project participants wishing to become volunteer drivers fill out an application and are invited to participate in a formal interview. If considered a good fit for VVP, they are selected.

## Training

Each participant receives orientation, training, and a driver test before driving for the program. Participants in VVP are encouraged to volunteer at least 20 hours per week, but the program understands participant needs and provides for flexibility to support success. Professional Driver Training includes the following topics:

- Harassment prevention
- Drug and alcohol education
- Blood borne pathogens
- Accident and incidents
- Instruction on Handling Car Seats
- Pre and Post-trip inspection
- Securing a wheelchair
- Drivers conduct
- How to read a manifest
- Looking up address and locations
- Keeping track of hours
- Customer service
- Work culture
- Body language
- Setting goals
- Using a cell phone
- Resume and cover letter writing
- Email address and use
- How to navigate using a worksite computer and basic computer skills

The first day is eight hours and includes orientation to the facility and services provided by Intercity Transit. Participants then participate in a defensive driving course, which is an electronic video presentation. The trainer discusses different scenarios, what drivers do right and wrong, what following distance should be, etc., and makes sure participants are clear on the laws and Intercity's expectations. There is no test, but the instructor drives with participants to ensure that they can demonstrate what they learned.

Next, customer service skills and issues such as boundaries with passengers are discussed, as are what is appropriate and inappropriate to say, working with struggling populations, how to answer customer service questions, professional dress, and skills related to the services they will be providing. Also discussed are

administrative aspects of the jobs such as completing a timesheet, availability, and schedules.

The next portion of training takes place with a van. The instructor covers pre- and post-trip inspection of the vehicle, and participants take the van on many road types including roundabouts, freeways, and city and rural routes while the instructors make sure they know how to scan properly and demonstrate the defensive driver training they have taken. Most volunteers want to be employed by Intercity Transit, so the instructor covers safety skills bus drivers would be expected to exhibit.

Once participants demonstrate capability, VVP staff provide a written test and drive with the participant to document that they are obeying traffic laws and to grade their ability.

The second day of training involves driving with another volunteer so they can teach each other. Participants ride along and help document the manifest, odometer readings, and stops and drive with volunteers in a documentation role to observe the participant picking up passengers. In most cases, after this step, participants are ready to drive on their own. Intercity Transit starts new volunteers with a light manifest. In some cases, participants might need more time in the ride-along position before driving solo.

### Administrative Support and Job Skills Training

VVP volunteers perform both administrative tasks and driving tasks. In addition to their driving training, participants receive clerical and administrative training and create cover letters and resumes for job search activities. They are trained to use common transit software such as RouteMatch and learn computer software programs such as Word, Outlook, and Google Earth; they also receive office equipment orientation to laminators, label printers, and copy machines and instruction on faxing and scanning documents and other common workplace activities. Customer service skills, report running, and phone answering tasks are performed. Some training topics covered include:

- Answering phones
- Scheduling rides
- Using scheduling computer programs
- Working alongside VVP assistants
- Manifest documentation
- Using the office phone system
- Communication with other departments

Administrative training is integrated with driving duties, which includes tasks such as documenting and verifying manifests and creating statistical information that Intercity Transit monitors. Volunteers learned how to schedule rides, enter information into RouteMatch, and complete a call log when people request service that goes into the software generating a manifest. As a routine part of their job, participants perform tasks such as answering phones or greeting people and providing customer service by answering questions, demonstrating professionalism, and taking messages.

## Outcomes

Intercity Transit suggested a number metrics to track but identified no specific goals. It did not begin the project until October 2017 and so was only 12 months into the project at the time of this report; therefore, the numbers shown in Table 17-1 are interim outcomes, as the project remains open.

**Table 17-1**  
VVP Interim Outcomes – Goal and Actual

Description	Goal	Achieved
Potential riders/drivers reached	-	3,157
New VPP drivers trained	-	9
Total number of VPP drivers	-	42
Found employment	-	4
One-way rides provided	-	2,309

VVP was in operation only for six months at the time of this report. As of that time, its outreach had gone out to more than 3,000 potential riders and drivers. The maximum staff (total drivers new and pre-existing) was a high of 42 and a low of 35, and the total number of new participants was nine; in addition, four people found employment, one of whom gained employment in the transportation industry. VVP has provided almost 2,500 rides for people to assist them in getting, reaching, or keeping employment over this time.

### Budget and Matching Funds

The ITWPD provided \$200,000 in Federal funds (48% of the total), most of which were in staff time (salary), van operations, and maintenance. The project manager indicates that expenditures are in line with expectations, and VVP is providing the full amount of in-kind contributions.

## Impact

VVP is a fairly low-impact project, consisting of 42 drivers, with only nine participants trained in six months and the placement of four people (one in transportation) at the time of this report. The primary impacts of the project appear to be for participants who learn job skills and get “a foot in the door” for transit positions. VVP provides an opportunity to a population that otherwise may not have a chance for the transit positions, as they have not had exposure

to the industry. In addition, VVP representatives suggest that the program's population is more diverse than Intercity might otherwise have access to in its regular talent pool.

There is impact for those assisted by the rides provided by VVP who are low-income and must have been receiving Federal assistance within the last three years. VVP staff note that some people use the service daily for up to a year; for some, it is transportation to work, interviews, WorkSource, or errands that allow them to work.

## Lessons Learned and Recommendations

Key lessons learned and advice offered by program representatives to those wishing to implement a similar project include the following:

- The project could work anywhere; other transit agencies have visited Intercity to learn to replicate it.
- VVP is run as a professional program and has a formality that is passed on to volunteers. Professionalism is expected and generally delivered, and although they are volunteers, drivers are treated as though they are coming to a paying job. This helps Intercity and helps volunteers to be work ready, increasing their chances of getting paid employment.
- Volunteers can be terminated from a position. A report of an unsafe driving maneuver is taken very seriously. Safety is always the first priority.

## Conclusion and Further Investment Recommendation

Intercity Transit's VVP is a worthwhile project to assist people for whom transportation is a key barrier for getting or maintaining employment. By using volunteers, it is an inexpensive way to provide training and work experience to those who may be interested in transit.

As a project to find potential drivers, it is not particularly needed or effective for Intercity Transit. As one representative noted, there are 100 applicants for only ten coach operator positions. VVP provides a boost to participant employment chances, but even with this boost, in the prior year only five people from VVP obtained coach operator positions.

From a hiring standpoint, the project is worth replicating only for agencies that have difficulty keeping operator positions filled and that have a need for a volunteer ride service such as VVP and the willingness to operate such a program. Further investment is warranted only given those conditions. (It should be noted that the volunteer ride service could serve any population in need.)

# Conclusions and Implications

Based on this evaluation, a number of conclusions and implications can be drawn about the ITWDP projects of 2015.

## Conclusions

- **Grantees generally met, and often exceeded, their goals.** Grantees specified goals in their proposals that they intended to achieve during the project. Although many grantees required additional time, 90% of all goals were met across programs. Moreover, 57% of all goals were not only met but exceeded, and often considerably. Of the remainder, 10% were not met, four had no data and were not counted, and two remain to be determined as the programs are not complete. Overall, the outcomes suggest that the programs funded were mostly well-planned and executed.
- **The ITWDP was successful at identifying promising approaches for workforce development.** The 2015 ITWDP projects are best viewed as pilot tests. FTA selected projects that varied in scope and type to explore different avenues for addressing common transit workforce issues. Based on the evaluation results, the projects appear to have identified several promising approaches that are worthy of consideration for further investment or investment on a broader scale.
- **Transit, workforce, and education together make very strong partnerships.** As with prior iterations of the ITWDP, some of the strongest projects come when a transit agency works with a workforce agency and an education partner. The transit agency provides positions and expertise, the education partner provides instructional design and rigor, and the workforce partner provides job seekers and support services. Together, they produce very productive workforce development programs. There were more such partnerships in this round of ITWDP projects, and this may account for the high number of goals met and exceeded.
- **Established projects offer a safe route to outcomes.** Several projects funded in the 2015 round of projects were building on, enhancing, or expanding existing programs. This is a relatively safe way to ensure that goals are met, as less time is needed for development, outreach processes are already established, and the programs have a proven track record of success.
- **Pre-apprenticeship programs must be flexible to accommodate transit construction.** Several 2015 projects were pre-apprenticeship projects, generally focused on construction apprenticeships. These programs are generally well-established, and because there are usually State standards for what they must cover, they are generally thorough. However, because

there may be key differences between “horizontal” construction for transit and “vertical” construction for buildings, it is important that these programs be willing to work with transit construction companies to adjust their curricula, examples, employer partners, etc., to accommodate transit construction. Some were reportedly reluctant at first, but with flexibility, outcomes were attained.

- **Unions need to be included early in recruitment and training projects.** Virtually all transit agencies have unions representing their frontline workforce. Project representatives generally report that having the unions involved from inception is helpful. Participants often will become union members, so not only do they need to be trained so they can pass union-required tests but their pay and opportunities must be worked out with the union. In some cases, programs assumed getting union approval would not be a problem but found later that it took substantial negotiation to work out. This can delay a project or leave graduates stranded. Labor-management agreement regarding the training up front can avoid critical problems later.
- **Applicants need to better define outcomes and metrics.** As with prior rounds of projects, some projects failed to clearly specify their intended outcomes. In some cases, no numerical targets were set; in others, metrics were set that did not relate to outcomes or impact. Although most projects in this round did a better job of specifying outcomes, some avoided setting targets on key metrics such as placement or measuring important metrics such as advancement for an incumbent program. Others set more unrealistic goals, such as 100% retention after training. Although there has been improvement, there is still room for more.
- **Providing wrap-around support services is critical when expanding the talent pool to disadvantaged or under-represented populations.** One focus of the 2015 ITWDP was to reach out to populations that are disadvantaged or traditionally under-represented in transit. Indeed, all of the programs tried to target these populations, such as those in poverty, ex-offenders, minorities, women, and veterans. For some, such as those in poverty and ex-offenders, support or wrap-around services are critical to helping them participate. They often have barriers such as transportation, childcare, drug treatment access, housing, driver’s license issues, and so on that must be addressed for them to remain in training over time. Other groups, such as women and veterans, can use different kinds of support such as help identifying how military skills can crosswalk to transit skills or active attempts to promote more gender equity in all aspects of the workplace.
- **Participant selection is critical to project outcomes.** An interesting issue arises in workforce projects—how to select participants. Some open the project up to everyone, and others select carefully. If the goal is to prepare participants for work in transit, and the training is in-depth, then

selection is critical to achieving hiring outcomes. Projects would be wise to create multiple screening tests, with the most cost-effective screening measures up front progressing to the most expensive before training begins. One 2015 project purposefully started with a wide outreach effort and expected (designed) a funneling process such that, from hundreds of applicants, it intended to train few and hire only the best of those. The more technically-demanding and hard-to-fill a position is, the more this type of selection process is warranted. Some projects noted that they lost people after training due to drug test failures. The training slot and investment are wasted in such cases.

## Implications

- **Develop and implement standard outcome measures.** FTA representatives indicated the agency is creating a standard set of metrics for funded projects. This is encouraged, as it would provide guidance to projects on what outcomes to measure and, thus, what data to collect. Transit agencies are in the business of transportation, not workforce development, so they cannot be expected to use the most rigorous data sources such as Unemployment Insurance Wage Records or resource-intensive methods. However, a basic set of metrics that are simple to measure should be implemented.
- **Set project selection criteria in line with agency and program goals.** FTA should review the selection criteria for projects and consider whether they are aligned with agency goals. For example, the ITWDP projects were meant to be innovative pilot projects. However, some of the proposals strained to show what specifically was innovative about the approach. In contrast, others might be innovative, but specify very low expected training numbers. If the goal is innovative programs, then criteria should be established for justifying what makes a program innovative, and the expectations must be that some may fail to reach their goals. By contrast, if high volumes of trained and placed participants are the desired result, then programs that are building on proven programs are the more logical investment, and criteria should reflect this.
- **Require that projects specify outcome goals.** Some projects provide proposals that indicate what metrics will be tracked without specifying what the target levels are for these metrics. FTA should require that clear, measurable goals are set for project outcomes so their success can be evaluated against a standard FTA set.
- **Consider whether projects are good for the participants or the transit agency, or both.** Ideally, a project will be a “win-win,” helping participants by providing skills and employment and the agency by providing talent and filling key skill gaps. However, some projects appear to be more beneficial to the participants than the agency. Unless there are other driving

interests (e.g., increasing diversity, community relations, etc.), FTA may not want to fund training programs preparing people for positions in which there is already a steady labor supply. Given the needs in transit, focus should be on projects that address labor and skill shortages or expected shortages.



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