

A Road Map for Heavy Highway Construction Workforce Development

I-81 Viaduct Project
Syracuse, New York



U.S. Department of Transportation
Federal Highway Administration

#RoadsToYourFuture

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HOW TO USE THIS ROAD MAP



Source: Tryfonov / Adobe Stock.

All drivers need a map for success on the road. This document was developed to do the same for you. What follows describes the route taken to support the connection between local residents and heavy highway career opportunities on the Interstate 81 (I-81) Viaduct Project in Syracuse, NY. It provides helpful tips and guiding principles, not strict rules. Every road trip is different and, therefore, the strategies and tactics described are specific to this project and context. This road map is not all-inclusive nor will all turns and stops we took be relevant to your project-specific needs. That said, the road map includes many common experiences shared from multiple locations across the country during the Federal Highway Administration (FHWA) Strategic Workforce Development pilot program.

When using this road map, it is fine to take off-ramps to suit your local needs.

As you take this road trip and find new destinations, you can share your experiences with us as we are sharing ours with you. By adding your expertise to the knowledge base, transportation workforce development can continue to improve. And you can know that you played a role in developing the best transportation workforce in the world.

The collective goal of these efforts supporting workforce development for the I-81 Viaduct Project focused on collaboration among various local, State, and Federal stakeholders to identify, train, and place local individuals in construction-related jobs on the project.

This road map is a companion document to the FHWA Highway Construction Workforce Partnership (HCWP) Playbook, which provides national best practices and inspiration for how to form a working group that is well-equipped to fill vacant highway construction jobs. This road map focuses on implementing these efforts in a localized context to support a major project. This document is organized according to the key steps defined in the FHWA HCWP Playbook: Identify, Train, and Place.

GLOSSARY OF KEY TERMS	
USDOT	U.S. Department of Transportation
FHWA	Federal Highway Administration
NYS DOT	New York State Department of Transportation
HCWP	Highway Construction Workforce Partnership
OJT/SS	On-the-Job Training/Supportive Services

INTRODUCTION

As noted in the Federal Highway Administration (FHWA) Highway Construction Workforce Partnership (HCWP) Playbook, there is consensus in the highway community that there is a noticeable shortage of workers in the heavy highway industry and that something needs to be done to address it. The U.S. economy and its citizens depend on an efficient, effective, and safe highway system. A 2021 survey conducted by the Associated General Contractors of America (AGC) found that construction firms across the country are struggling to fill open positions.¹ Eighty-nine percent of those contractors surveyed indicated having difficulties finding craft workers. AGC’s website contains multiple annual surveys focused on the workforce and it may be useful to examine the data for your State. Table 1 illustrates this challenge at the State level in New York using AGC data from 2021.

Table 1. New York Workforce Needs

Percent of Firms Having Difficulty Filling Hourly Craft Positions New York Workforce 2021	
Carpenters	74%
Cement Masons	91%
Concrete Workers	81%
Electricians	75%
Equipment Operators	63%
Ironworkers	60%
Laborers	76%
Mechanics	87%
Painters	86%
Pipefitters/Welders	83%
Traffic Control Personnel	75%
Truck Drivers	100%

Source: [2021 Workforce Survey NY \(agc.org\)](https://www.agc.org/2021-workforce-survey-ny).²

Nationally, the U.S. Department of Transportation’s (USDOT) FHWA, through the HCWP pilot, has built relationships with critical stakeholders to tackle the worker shortage in highway construction and more efficiently complete important transportation infrastructure projects.

Consistent with the findings in the FHWA HCWP Playbook, we found that it is critical to form relationships with various stakeholders early in the process. Our collaborators worked together toward our clear collective goal of connecting trained local residents with job opportunities on this project through collaborative discussions, identifying resources, and roles and responsibilities. Together, we devised and implemented proactive efforts to address all three steps in the workforce development process—identify, train, and place.

1 [Construction Workforce Shortages Reach Pre-Pandemic Levels Even as Coronavirus Continues to Impact Projects & Disrupt Supply Chains | Associated General Contractors of America \(agc.org\)](https://www.agc.org/2021-workforce-survey-ny).

2 [2021 Workforce Survey NY \(agc.org\)](https://www.agc.org/2021-workforce-survey-ny).

“President Biden’s Investing in America agenda is making historic investments in our Nation’s infrastructure—in New York and all across the country—to reconnect communities, improve safety, and provide better travel options that meet the needs of local residents and connect them to opportunities for decades to come,” said Federal Highway Administrator Shailen Bhatt. “We are proud to invest in the success of this project that will create thousands of new construction jobs and drive transformational change for communities in and around Syracuse.”

FHWA NATIONAL INITIATIVES

A coalition of organizations, including FHWA, AGC, the American Road and Transportation Builders Association, the American Association of State Highway and Transportation Officials, and the U.S. Department of Labor Employment and Training Administration, worked with many regional and local groups to design a pilot model for identifying, training, and placing individuals in highway construction jobs.

A 2-year HCWP pilot program (January 2017 – December 2018) included six cities and six States. Working groups were established in each location that included representatives from the FHWA Divisions, State DOTs, AGC Chapters, State and Local Workforce Development Boards, and other organizations with a responsibility for highway construction workforce development. The HCWP pilot was a great success in establishing effective State and local relationships to further highway construction workforce development and developed several innovative programs and practices, including the HCWP Playbook.

Every Day Counts



Source: FHWA.

Every Day Counts (EDC) is a State-based model that identifies and rapidly deploys proven, yet underutilized, innovations that make our transportation system adaptable, sustainable, equitable, and safer for all. Proven innovations promoted through EDC facilitate greater efficiency at the State, local, and Tribal levels, saving time, money, and resources to ensure that our infrastructure is built better, faster, and smarter.

EDC round one was launched in 2011. For the sixth round of EDC (2020–2022), HCWP was identified as an EDC emphasis program and is referred to as the Strategic Workforce Development (SWD) Initiative. Despite this new title, HCWP and SWD are the same program. Thirty-three States, including New York, selected SWD as a focus program as part of EDC-6.

Highway Construction Workforce Partnership

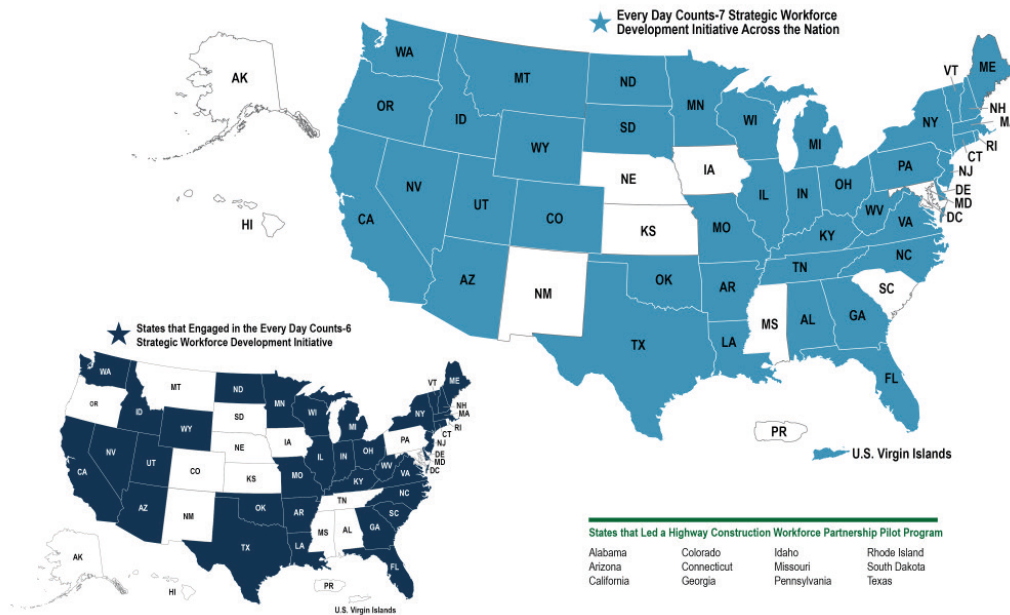
Based on the success of the HCWP pilot program and the interest of the States in the EDC-6 SWD Initiative, FHWA established the HCWP Grant Program. Four million dollars in FHWA On-the-Job Training/Supportive Services (OJT/SS) were made available for HCWP grants.

The HCWP Grant Program focused on the strength of the partnership throughout the transportation, education, and public workforce system community to affect a successful HCWP program. To be eligible for an HCWP grant, States had to provide letters of commitment from State or local highway contractor organizations. Letters of interest from partner organizations were encouraged and considered in making the awards. Twenty-one States submitted applications. Eleven applications, including New York’s, were selected for funding.

New York received an HCWP grant of \$391,216 to support training and recruitment for the I-81 Viaduct Project.

Figure 1 shows HCWP and SWD locations across the country.

Figure 1. HCWP and SWD Participating States



Source: FHWA.

I-81 VIADUCT PROJECT SUMMARY

Before setting out on our road trip, a destination must be set and all roads in Syracuse lead toward Interstate 81. The following two sections include a summary of the project area history from NYSDOT's project website.³

About the Project

Interstate 81 (I-81) is important for the Syracuse area. The highway serves as a major commuter route, providing access to jobs, businesses, and services in downtown Syracuse and the hospitals and institutions on University Hill. It also serves as a national and international north-south trade route from Tennessee to the Canadian border. This connectivity is essential and influences the livability, economic vitality, and sustainability of the Syracuse metropolitan region.

Portions of I-81, which was built in the 1950s and 1960s, are deteriorating and nearing the end of their useful life. Also, sections of I-81 do not meet current standards and are experiencing high accident rates. This is especially true of the 1.4-mile elevated section, or "viaduct," near downtown Syracuse. Now is the time to address I-81's safety concerns and the structural integrity of the viaduct. In order to do this, NYSDOT and FHWA are following an environmental review process. The purpose of the I-81 Viaduct project is to address the structural deficiencies and non-standard highway features in the I-81 corridor while creating an improved corridor through the City of Syracuse that meets transportation needs and provides the transportation infrastructure to support long-range planning efforts (such as SMTCL RTP, Syracuse Comprehensive Plan, and others).

Roads have the ability to shape the character of a community. This project presents the Syracuse region with an opportunity to formulate a vision, evaluate the community's transportation system important for the New York State Department of Transportation (NYSDOT) to consider the extent to which the transportation infrastructure can enhance economic growth and vitality in the city. With the project needs and local plans in mind, NYSDOT has developed the goals for the I-81 Viaduct project.

Figure 2. I-81 Viaduct Project Location



Source: FHWA.

History of I-81 in Syracuse

The 1944 passage of the Federal Highway Act began an era of road building in the United States. New York State's highway engineers began to develop a master plan for New York State. The 1947 Urban Area Report for the Syracuse region depicted the concept for the first north-south highway through the Syracuse region—the Townsend Street arterial. The arterial was eventually incorporated into the 1955 Federal publication known as the "Yellow Book," which mapped out what would become the Interstate Highway System.

In 1958, a decision was made to locate a proposed interstate highway on an elevated structure along Almond Street, coinciding with the location of the Near East Side Urban Renewal Area. I-81 was constructed in three stages, opening between 1959 and 1969.

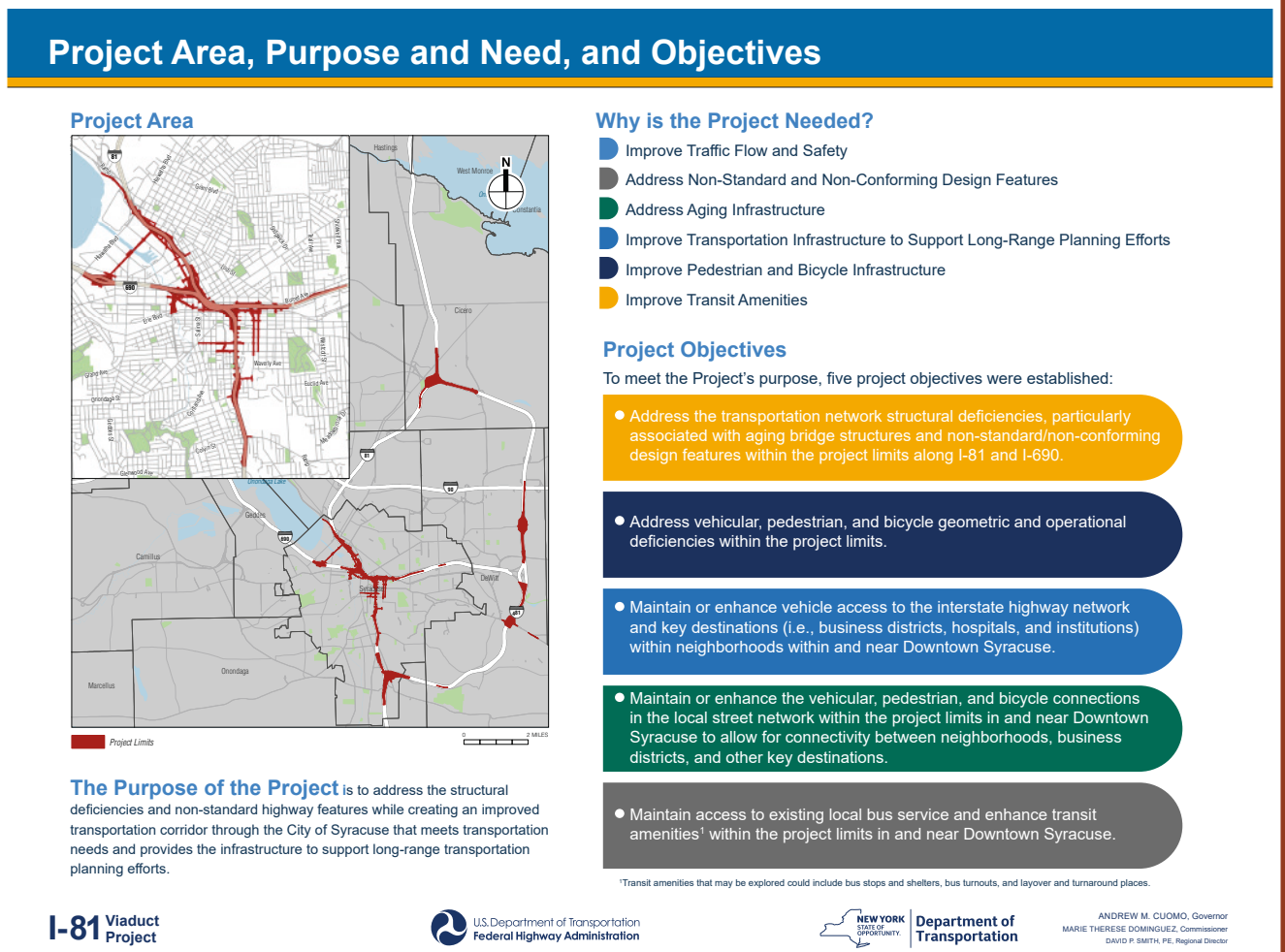
Today, I-81 is one of the most traveled roadways in the City of Syracuse and the Greater Syracuse region, carrying approximately 100,000 vehicles per day. Fifty plus years of use and exposure to the extreme weather conditions in Syracuse have taken a toll on portions of the highway, especially the viaduct. That is why NYSDOT and FHWA have initiated a highway improvement project.³

The project needs are defined in the Joint Record of Decision and Findings Statement⁴ and are defined in Figure 3, which was produced as a display board at the public hearing in August 2021 and at subsequent neighborhood and community meetings.

³ <https://webapps.dot.ny.gov/i-81-viaduct-project-overview>.

⁴ [joint-record-of-decision-interstate-81-project-pin-3501.60.pdf](https://www.nysdot.gov/interstate-81-project-pin-3501.60.pdf) (ny.gov).

Figure 3. I-81 Viaduct Project: Project Area, Purpose and Need, and Objective



Source: 1-81 Viaduct Project Overview website, NYSDOT 1-81 Viaduct Project Renderings / Department of Transportation (ny.gov).

The Joint Record of Decision and Findings Statement identified the “Community Grid” as the selected alternative for the project.⁵ This alternative is described below in an excerpt from NYSDOT’s project website:

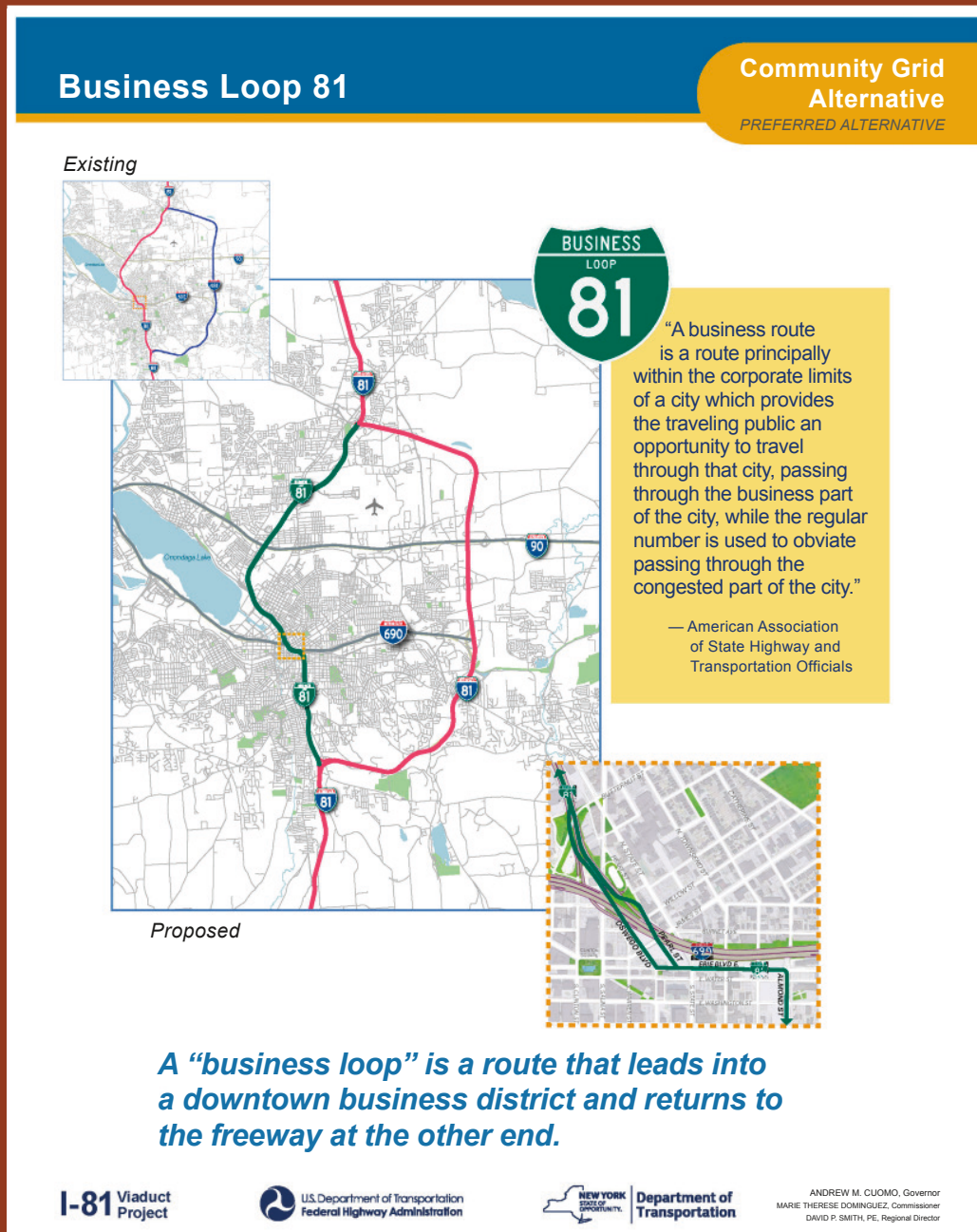
“The Community Grid Alternative would involve demolishing the existing viaduct between the New York, Susquehanna and Western Railway (NYS&W) bridge near Renwick Avenue and the I-81/I-690 interchange. The section of I-81 between the southern I-81/I-481 interchange (Interchange 16A) and the I-81/I-481 northern interchange (Interchange 29) would be de-designated as an interstate, and existing I-481 would be re-designated as the new I-81 and would carry a minimum of four travel lanes (two in each direction) of through traffic. The portion of existing I-81 between its northern and southern intersections with I-481 would be re-designated as a business loop of I-81 (BL 81). The character of BL 81 would vary from a high-speed facility to a signalized city street.

The alternative would disperse traffic throughout the city grid, with access points to and from I-690 and BL 81 available at West Street and Crouse and Irving Avenues (to and from I-690), as well as at Clinton Street, Oswego Boulevard, and Pearl Street (to and from northern BL 81), and numerous at-grade intersections along Almond Street between MLK, Jr. East and Erie Boulevard (to and from southern BL 81).

The Community Grid would also include a full reconstruction of I-690 between Leavenworth Avenue and Beech Street, with a partial I-81/I-690 interchange, as well as interchange modifications, bridge replacements, and other features. Almond Street would be reconstructed and include new pedestrian and bicycle amenities.”

Source: Community Grid | U.S. Department of Transportation (ny.gov).

Figure 4. I-81 Viaduct Project Community Grid Alternative



Source: NYSDOT I-81 Viaduct Project Renderings / Department of Transportation (ny.gov).

COMMUNITY ADVOCACY

This project garnered a significant amount of community interest for both its scope and magnitude. The New York Civil Liberties Union published “The I-81 Story,”⁶ which gives a detailed overview of the history of the original project, stating in summary: “More than 50 years ago, the Interstate 81 Viaduct ripped through a working-class Black neighborhood in Syracuse. It displaced long-time residents and ensured that poverty, pollution, and a lack of resources would hurt the community that lived in the highway’s shadow that still persists today.” The New York Governor’s Office has described the Viaduct as “divid[ing] the City of Syracuse for decades and disproportionately impact[ing] residents of color.”⁷

The Urban Jobs Task Force (UJTF), a local organization that advocates for equitable access to employment and economic opportunities for disadvantaged residents in Syracuse, and Legal Services of Central New York partnered to create a racial equity impact study (REIS) “to investigate the racial disparities in the construction trades and the opportunities to create equity within them.”⁸ The report found that proportional representation of minorities in the construction trades does not currently exist; the study focused on the Syracuse area specifically. The report included quantifiable data and analysis of racial demographics of construction worksites with the aim of promoting collective action surrounding the I-81 Viaduct project and seizing the opportunity for a more inclusive, diverse, local workforce.

The report provided a few recommendations based on its findings, including workforce program modifications such as the immediate commencement of construction trades training for Syracuse residents.

Additionally, UJTF and the REIS were driving forces behind the formation of the I-81 Jobs Big Table (“Big Table”), which was described in the report as “regular meetings among agreed-upon NYSDOT officials, trade union leaders, community workforce developers, community equity advocates, and state-level political leaders to discuss, among other things, the nuts-and-bolts of union-ready pre-apprenticeship training, community workforce agreement language, and community outreach for the identification and recruitment of qualified local workers.”⁹

Did You Know?

According to Urban Job Task Force research, 87% of workers on past projects in the area were white males and more than 90% resided outside of Syracuse. REIS served as a “call to action” to work collectively to create racial equity in the construction trades locally.

“Key to UJTF’s success was their commitment to maintaining laser focus on the issue of local hire on the I-81 project. While there are many other project-related focus areas, UJTF was never distracted from its mission. Commitment to unwavering focus to the area of expertise, in this case local hire, is a critical component.”

– Sharon Owens, Deputy Mayor, City of Syracuse

6 NYCLU (ACLU of New York), <https://www.nyclu.org/en/campaigns/i-81-story>.

7 <https://www.governor.ny.gov/news/governor-hochul-and-senator-schumer-announce-major-milestone-225-billion-i-81-viaduct-project>.

8 <https://www.ujtf.org/reis>.

9 <https://www.ujtf.org/reis>.

UJTF used some of the following strategies in their community advocacy surrounding the I-81 Viaduct project:

- The creation of a “Street Team” that did door-to-door canvassing, passed out flyers, sent mass texts, hosted information tables at community events, and conducted social media outreach.
- Organizing through public outreach events and publicizing comment opportunities surrounding the project, including garnering nearly 3,000 signatures on a petition in support of the Local Hiring Preference for I-81.
- Countless newspaper articles and radio interviews.
- Public visibility at marches, community events, and press conferences.
- Outreach to several national and State elected officials.
- Research in support of a local hiring initiative, such as
 - research and development of the training, now known as Syracuse Build (described in more detail later in the road map), resulting in the creation of a playbook, and
 - researching other projects with Local Hiring Preferences such as the LA Metro and Cleveland hospital projects to help build the framework for what is possible with a Local Hiring Preference in Syracuse.
- Partnership with the City of Syracuse to lead the work for the Big Table (described in more detail in the next section).

Source: Interview with UJTF and the REIS document.



Image source: ASDF_MEDIA | shutterstock.com.

Elected leaders and partners who were invited to the Big Table included the following:

FHWA, NYS Department of Labor, NYSDOT, NYS Office of the Comptroller, NYS Attorney General’s Office, Onondaga County, City of Syracuse, and representatives from the Offices of Governor Hochul; Congressman Katko; U.S. Senators Gillibrand and Schumer; New York State Senators May and Mannion; and Assemblymembers Hunter, Magnarelli, and Stirpe.

The Urban Jobs Task Force spearheaded the creation of the Big Table with the city. Other community stakeholders invited included Central-Northern New York (CNY) Building and Construction Trades Council, Syracuse Builders Exchange, CNY Minority Contractors Association, North Atlantic States Regional Council of Carpenters 277, IBEW Local 43, Laborers Local 633, Painters and Allied Trade Union CNY Labor Federation, CenterState Corporation for Economic Opportunity (CEO), CNY Legal Services, SUNY Syracuse Educational Opportunity Center, CNY Works, Syracuse Build, National Association for the Advancement of Colored People (NAACP), New York Civil Liberties Union, the Syracuse City School District, Associated General Contractors, Allyn Family Foundation, and local businesses and employers.

LISTENING TO THE COMMUNITY

Multiple avenues were taken to foster a dialogue with the City of Syracuse, NYSDOT, and FHWA focused on how the local community could be connected with job opportunities on the I-81 Viaduct project. In anticipation of the I-81 Viaduct project and consistent with the recommendations of UJTF's REIS, the City of Syracuse convened the Big Table in August 2020, inviting representatives from Federal, State, and local governments, as well as business, labor, and community stakeholders.

According to the City of Syracuse, the goal was to address best practices in local hiring, business and workforce preparation, and local contracting on public works projects. The Big Table has met more than six times since 2020 to coordinate, plan, and prepare to connect local people looking for heavy highway and construction careers with opportunities on the project. Additionally, many of the Big Table meetings have led to the formation of various subgroups focused on such efforts as funding, workforce development, and small business growth. Most relevant here are the work groups focused on workforce development and, in particular, the development of the Local Hiring Preference.

The Big Table serves as a powerful driving force for action, gathering relevant stakeholders to work through the steps necessary to implement a Local Hiring Preference and providing leadership from many organizations to support these efforts.

The community used the formal public outreach meetings and comment opportunities required for the I-81 Viaduct project to provide input about the proposed project alternatives, as well as support for the inclusion of a Local Hiring Preference and job opportunities for local residents on the project. The use of Federal funds by NYSDOT, the project sponsor, required that the National Environmental Protection Act (NEPA) process be followed, including the creation of an Environmental Impact Statement (EIS). FHWA and NYSDOT announced the availability of the project's Draft Design Report (DDR)/Draft EIS on July 16, 2021, and held a 90-day public comment period on that document. FHWA and NYSDOT received more than 8,000 comments on the DDR/Draft EIS. Pursuant to Federal regulations, FHWA and NYSDOT provided a 30-day review period between the publication of the Final Design Report/Final EIS and the Record of Decision. While this 30-day period was not a formal comment period, FHWA and NYSDOT welcomed the submission of comments during this time. New and substantive comments were received during the Final Design Report/Final EIS review period. During the public review period for the Final Design Report/Final EIS, FHWA and NYSDOT received more than 1,000 comment submissions. Multiple comments on jobs and local hiring were submitted by the general public, UJTF, and CenterState CEO on the Draft EIS, all of which can be read in the Final EIS Appendix M-5.

The NEPA process for the I-81 Viaduct project concluded on May 31, 2022, with the publication of a Record of Decision serving as the final decision and document on environmental commitments.

Source: Interviews with UJTF and the City of Syracuse; NYSDOT Final Design Report/Final EIS and Final Section 4(f) Evaluation for the I-81 Viaduct project and Joint Record of Decision/Findings Statement for I-81.



Source: Monkey Business / Adobe Stock 265651548.



Source: STOCKR Shutterstock.com.

What Is a Local Hiring Preference?

On February 11, 2022, FHWA published a notice in the Federal Register announcing the transition from its experimental pilot initiative to reliance on Section 25019 of the Bipartisan Infrastructure Law (BIL), enacted in 2021 as the Infrastructure Investment and Jobs Act (P.L. 117-58), for the use of hiring preferences on FHWA projects.

BIL Section 25019(a) allows States and other recipients and subrecipients to utilize local or other geographic and economic hiring preferences on their Federal-Aid Highway Program projects. FHWA considers the following a non-exclusive list of examples:

Geographic boundaries based on non-economic factors such as the following:

- State, county, or other public boundaries
- ZIP Code limits
- Census tracts
- Other geographically defined boundaries

The selection of geographic areas (e.g., ZIP Codes, census tracts) based on economic factors, including the following:

- Per capita income levels
- Unemployment rates
- Poverty rates

Economic conditions of the worker, such as the following:

- Income level during the prior calendar year
- Participation in public assistance programs where income is a defining criterion, such as Supplemental Security Income (SSI) or Supplemental Nutrition Assistance Program (SNAP)
- Being part of a group that has known barriers to employment and higher income jobs, such as people with criminal records and people with no more than a high school education (except as provided below)
- Other factors defined by economic criteria

Any hiring preference for a class or groups of persons based on race, religion, sex, sexual orientation, gender identity, color, national origin, age, or disability would be permissible under BIL Section 20519(a) only to the extent that (i) it is a local or other geographical or economic hiring preference, and (ii) it is consistent with the equal protection requirement of the U.S. Constitution.

Source: <https://www.fhwa.dot.gov/construction/hiringpreferences/qanda060822/>.

IDENTIFY

With our sights set toward I-81, we continue this road trip by identifying the needs of this project so we are able to address them upon arriving at our final destination. As described previously, the existing national shortage of employees in multiple heavy highway careers across the country affects the efficiency of project completion. Syracuse is no exception. In fact, the presence of the existing national shortage locally in Syracuse will be further exacerbated by the magnitude of the I-81 Viaduct project should the region not create a ready, willing, and able pool of individuals to complete it.

NYSDOT identified the projected construction and demolition workforce hours needed for this project in the EIS. Table 2 presents table 4 from the EIS, which estimates approximately 3,711 staff years of employment (assuming a standard work year of 2,080 hours) for the entire project. In all, the I-81 Viaduct project is projected to require more than 7.7 million workforce hours among the various highway construction trades.

This information was the starting point for determining how many individuals will be needed in each heavy highway construction trade to support the I-81 Viaduct project. These were important projections because prospective employees often require some level of training (e.g., often Occupational Safety and Health Administration (OSHA) 10, commercial driver's license, construction math) in order to enter apprenticeships and other entry-level highway careers. Therefore, these projections were critical to informing the next steps for developing a Local Hiring Preference, including identifying the ideal types and sizes of training programs

Table 2. Community Grid Alternative: Construction Staff Hours and Staff Years Generated

Community Grid Alternative: Construction Staff Hours and Staff Years Generated				
Description	Construction Staff Hours			
	1	2A	2B	Total
Carpenters	111,333	481,743	474,482	1,067,558
Concrete Finishers/Masons	19,823	84,926	81,234	185,983
Common Building Laborers	84,715	307,715	285,045	677,475
Equipment Operators, Crane or Shovel	27,682	70,334	69,112	167,128
Equipment Operators, Light Equipment	4,545	13,933	8,597	27,075
Equipment Operators, Medium Equipment	8,457	39,162	31,585	79,204
Equipment Operators, Oilers	8,439	36,507	35,787	80,733
Helper's Average (5 trades)	12,675	24,034	24,034	60,743
Pile Drivers	17,749	107,078	107,078	231,905
Rodmen (Reinforcing), Foreman	14,031	78,781	78,781	171,593
Rodmen (Reinforcing)	50,837	268,298	268,298	587,433
Rodmen (Reinforcing), Apprentice	14,031	78,781	78,781	171,593
Skilled Workers Average (35 trades)	290	6,752	9,089	16,131
Structural Steel Workers	7,524	36,050	47,540	91,114
Welders, Structural Steel	158	748	994	1,900
Truck Drivers, Heavy	357,066	188,164	65,684	610,914
Total Staff Hours	739,355	1,823,006	1,666,121	4,228,482
Total Staff Years	356	876	801	2,033

to prepare for and meet local needs. The Big Table and its subgroups relied on this information shared by NYSDOT to tailor recruitment.

The next step was to conduct a needs assessment (see Figures 7 and 8) to identify who could fill these workforce needs. The development of the needs assessment was the beginning of a collective effort later named the “WorkSmart NY Syracuse Build Collaborative,” which included multiple stakeholders detailed later in this road map. The needs assessment examined median household income and unemployment rate data to demonstrate the need for the preference and leveraged a previously utilized definition of “economically disadvantaged areas” to begin to determine the proposed local hire areas. Economically disadvantaged areas are defined as a “ZIP Code that includes a census tract or portion thereof in which the median annual household income is less than \$40,000 per year as measured and reported by the U.S. Census Bureau in the 2010 U.S. Census and as updated by the parties upon the issuing of the Median Annual Household Income data from the American Community Survey.” Twelve ZIP Codes and the Onondaga Nation were identified as economically disadvantaged areas in the Syracuse area.

The resulting needs assessment data was useful for multiple destinations on our road trip. For example, the workforce needs assessment was included in the applications to help secure the FHWA State Transportation Innovation Council (STIC) and HCWP grants. The needs assessment was also critical to the development of the Local Hire Preference itself, and to provide support for the grant programs as they shape and support the recruitment and training for the Local Hire Preference.

Source: NYSDOT SEP-14 Local Labor Hiring Incentive Program application.

<i>Intentionally blank</i>	Demolition Staff Hours				
	1	2A	2B	Total	Total
	90,860	68,145	68,145	227,150	1,294,708
	-	-	-	-	185,983
	553,342	415,014	415,014	1,383,370	2,060,845
	32,981	24,737	24,737	82,455	249,583
	-	-	-	-	27,075
	259,939	194,949	194,949	649,837	729,041
	12,897	9,678	9,678	32,253	112,986
	51,601	38,705	38,705	129,011	189,754
	-	-	-	-	231,905
	-	-	-	-	171,593
	-	-	-	-	587,433
	-	-	-	-	171,593
	251,533	188,647	188,647	628,827	644,958
	77,410	58,053	58,054	193,517	284,631
	1,617	1,204	1,204	4,025	5,925
	63,625	47,724	47,724	159,073	769,987
	1,395,805	1,046,856	1,046,857	3,489,518	7,718,000
	671	503	503	1,678	3,711

Table 3. Median Household Income and Unemployment Rate Data

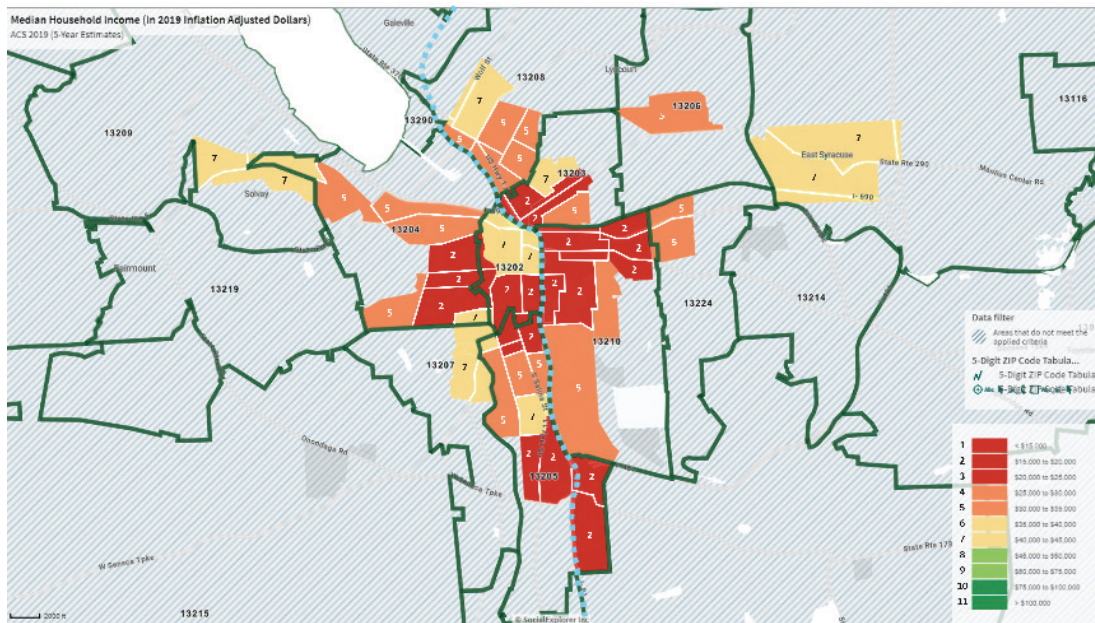
Median Household Income From 2015 Through 2019	
United States	City of Syracuse
\$62,843	\$38,276

Source: 2015–2019 American Community Survey, U.S. Census Bureau.

August 2021 Unemployment Rates		
United States	Onondaga County	City of Syracuse
5.3%	5.4%	7.8%

Source: NYS Department of Labor statistics.

Figure 5. Median Household Income by Census Tract and ZIP Code



Source: 2015–2019 American Community Survey, 5-Year Estimates, U.S. Census Bureau.

Tip: Clearly identifying the anticipated project labor needs will result in more focused training and placement pathways.

WORKSMART NY SYRACUSEBUILD COLLABORATIVE ORGANIZATIONS

Nationally, HCWP efforts reflect true collaboration in seeking solutions to address national worker shortages. Key stakeholders have organized as the WorkSmart NY Syracuse Build Collaborative in Syracuse with the goal of creating a pipeline from career awareness and recruitment to training and supportive wraparound services to placement on the I-81 Viaduct project through the Local Hiring Preference. The monthly collaborative meetings have been ongoing and will continue through construction on the I-81 Viaduct project, keeping all players engaged as discussions shift from planning to implementation to evaluation. The goal is that by supporting this pipeline and working together to address speed bumps live as they arise, this initiative will increase the number of individuals trained and hired on the project.

WorkSmart NY Syracuse Build Collaborative

The Collaborative is specifically focused on the I-81 training pipeline and developing the Local Hiring Preference. Many members of this list are also focused on monitoring the implementation of these efforts:

- City of Syracuse
- NYS Department of Labor
- NYSDOT
- FHWA
- SUNY Syracuse Educational Opportunity Center
- CNY Works
- CenterState Corporation for Economic Opportunity (CEO)
- Central-Northern New York Building & Construction Trades Council
- Urban Jobs Task Force
- Syracuse Build and Pathways to Apprenticeship
- Legal Services of Central New York
- Associated General Contractors
- IBEW Local 43

“The I-81 Viaduct is a concrete relic that, generations ago, split the City of Syracuse in two—all in the name of progress. In its wake came high-speed traffic through the city, urban blight, rampant poverty, and the destruction of a once-vibrant 15th Ward, which still bears the scars of the viaduct’s construction. The time has come to reimagine all that the City of Syracuse can be and that starts with the transformation of I-81. Years from now, other cities from across the Nation will look at the work that the residents of Syracuse and the New York State Department of Transportation undertook in Central New York as an example of what’s truly possible to reinvigorate urban centers and surrounding communities.

Just as important, they will use this road map as a guide to demonstrate how big ideas can lead to real outcomes that benefit all. The I-81 Viaduct project is a labor of love for our team at NYSDOT and truly a project we are all proud of, one that will help create jobs and opportunities—all of which have been nurtured by local residents. It’s not often that a project of this magnitude helps to create a roadmap to guide others in righting the wrongs of the past, but that’s exactly what New York State, under Governor Kathy Hochul’s leadership, is doing with I-81. The roadmap we follow here will create a pipeline of opportunity for the people of Syracuse and Central New York and put the entire region on a path toward greater prosperity.”

– Commissioner Marie Therese Dominguez, New York State Department of Transportation

The Collaborative and Big Table are two important work groups associated with this effort; however, it is important to note that there are other steering committees, funders, and partners within the broader workforce development effort, including the following:

WORKSMART NY SYRACUSE BUILD COLLABORATIVE ORGANIZATIONS

Syracuse Build Steering Committee

Developing a diverse construction trades pipeline for major Syracuse construction projects:

- City of Syracuse
- Onondaga County
- Upstate Medical University Hospital
- Syracuse University
- CenterState CEO
- NYSDOT
- NYS Department of Labor
- CNY Works
- SUNY Syracuse Educational Opportunity Center
- J.E. Bryant & Associates
- Urban Jobs Task Force
- Central-Northern New York Building & Construction Trades Council
- IBEW Local 43
- Plumbers/Steamfitters Local 81
- Carpenters Local 277

Labor, Training, and Community Partners

Partners implementing and guiding training programs:

- Central-Northern New York Building & Construction Trades Council
- North America's Building Trades Unions
- IBEW Local 43
- Plumbers/Steamfitters Local 81
- Carpenters Local 277
- International Union of Operating Engineers Local 158
- Ironworkers Local 60
- Painters and Allied Trades, DC #4
- Roofers Local 195
- Bricklayers and Allied Craftworkers Local 2
- Legal Services of Central New York
- Volunteer Lawyers Project
- Financial Opportunity Center
- Cooperative Federal Credit Union
- 100 Black Men
- PEACE, Inc.
- Community Center Collaborative
- CNY Works
- OCM BOCES
- SUNY Syracuse EOC



Source: KOTO / stock.adobe.com.

SPOTLIGHT: CAREER AWARENESS AND RECRUITMENT

Headed toward the I-81 Viaduct project, an important stop is to pick up those who are ready to join the road trip. In order to do this, the WorkSmart NY Syracuse Build Collaborative included collaboration with key member agencies Syracuse Build and Syracuse State University of New York (SUNY) Educational Opportunity Center (EOC). Both of these stakeholders represent key recruiters for the workforce development pipeline in the Syracuse area as they alert local residents regarding construction job opportunities and identify interested individuals.

These programs utilize the following strategies:

- Employing “street level” recruitment or word of mouth recruitment, which makes use of established connections or relationships among residents, job seekers, recent program graduates, and training coordinators.
- Recognizing, identifying, and utilizing the value of neighborhood-based nonprofit agencies to assess workforce needs and provide the auxiliary supports needed to succeed in workforce training.
- Conducting interviews and focus group discussions to learn from the perspectives of seasoned construction workers, people who are new to or interested in the industry, women, and so forth in order to better form recruitment efforts and focus the programs on career expectations using the “worker’s voice.”
- Leveraging enrolled students and graduates to spread the word about their experiences and successes. Specifically, Syracuse Build offers a referral process in which graduates can refer friends and family, as well as endorse one applicant they believe will be a good fit for the program. In doing so, the program graduate attaches their own name to the future successes of an identified individual.
- Using social media as an effective means to garner awareness and interest in training programs across a large audience.

Tip: Community-based outreach and recruitment is a strength for creating successful training and job opportunities.

Additionally, NYSDOT utilized funding from the State Transportation Innovation Council (STIC) Incentive Program to promote heavy highway career awareness.

STIC Incentive Program funds can be used annually to support an EDC initiative and are currently being applied to the I-81 Viaduct project in a unique way. Currently, \$100,000 of funding is being used to expand the Expertise Project, a local career discovery program that uses video to make students more aware of local technical careers, into the Syracuse area school districts. The Expertise Project is based on the understanding that the best way to introduce young students to local career paths is to introduce them to near peers that have already chosen to take that path. The Expertise Project works with educators to integrate virtual reality headsets to allow students to virtually visit local worksites from their classrooms, watch brief videos that showcase local professionals, and eventually enlist students into video projects themselves—so career discovery becomes less about statistics and more driven by local exploration. The Expertise Project seeks to minimize the gap between students contemplating professional choices and the local work opportunities that can inspire them. The students helping create videos on different industries and professionals gain exposure to digital media and editing on a project that will be used to create career awareness for their peers, thus shaping the potential of a new generation of workers.

TRAIN

With context, workforce needs, people, and resources identified, it is now time to take an off-ramp toward training programs to train the necessary workers for the I-81 Viaduct project. The unique assembly of the WorkSmart NY Syracuse Build Collaborative also provided key support connecting existing stakeholders, programs, and supplementary resources in the development of a heavy highway training pipeline for the Syracuse area.

The I-81 Viaduct project workforce development effort includes many training programs, not all of which are summarized here. This includes the city, State, and others working hard through other programs to ready the community for this work. It is a collective effort. Other important stakeholders such as CenterState CEO, CNY Works, and other supportive service agencies are working with the local community to support this project. The following summary focuses on FHWA-funded or supported programs.

Tip: Do not assume the training needs of industry; work with them to develop programs responsive to their needs and inclusive to trainee needs.

First, NYSDOT's OJT specification, included on many of its Federal projects, provides training opportunities on the job itself. Described in detail later in this road map, the identified number of opportunities for OJT trainees on the I-81 Viaduct project were doubled in comparison with the standard program specification. NYSDOT's traditional OJT program and OJT Supportive Services (OJT/SS) programs under FHWA and 23 Code of Federal Regulations (CFR) Part 230 regulations represent mechanisms for training that are familiar to USDOT projects. Programs that affect the Syracuse area include the following:

- NYSDOT's commercial driver's license (CDL) program provides CDL certification training in multiple locations across New York, including Syracuse.
- The SUNY Syracuse Educational Opportunity Center (EOC) is part of a system of educational enterprises that serve eligible adult learners to deliver comprehensive, community-based academic and workforce development. The mission of the EOC system is to "provide urban communities with innovative academic programs leading to higher education, and vocational training programs leading to gainful employment and economic self-sufficiency."¹⁰
- With funding from NYSDOT, SUNY Syracuse EOC has had the ability to offer multiple WorkSmart NY construction training programs that prepare students for various construction jobs, including highway construction and apprenticeship opportunities. This is a 7-week hybrid (classroom and workshop) training to prepare students for various construction jobs. Training includes construction math, blueprint reading, introduction to power and hand tools, introduction to concrete, introduction to asphalt, flagging, and OSHA-10 for construction. Students completing the program receive an OSHA-10 Construction Safety and Health Card. Students in the program work at various sites throughout the City of Syracuse to gain hands-on training utilizing the skills that they learned in the classroom. Students also participate on site visits to active construction sites and/or employers come to the classroom to speak about the job opportunities and career paths available. Students in

SUNY Syracuse EOC Successes: Customized curriculum based on construction industry needs. Variety of supportive services. Inclusion of hands-on projects, such as partnering with the Syracuse Housing Authority to repair sidewalks and crosswalks, which are relevant work experiences and help improve the community and promote a tangible sense of accomplishment.

cohorts of up to 20 participants also receive soft skills training and job readiness training, such as resume writing workshops and mock interviews.

- EOC also offers the Build Ready Construction Training Program, which is 140 hours of hands-on training to prepare students for various construction/building maintenance apprentice positions. Training includes construction math, blueprint reading, and introduction to power tools and hand tools, and OSHA-10 for construction. Students in the program work at various construction sites throughout the City of Syracuse, including the Syracuse Housing Authority to gain actual hands-on training and OSHA-10 for construction. Students will also participate in soft skills training, resume writing workshops, and mock interviews before they complete the program.
- As part of the FHWA HCWP grant, SUNY Syracuse EOC has implemented the WorkSmart Construction Training Program, also a part of WorkSmart NY training, on the Onondaga Nation. As a targeted population under the Local Hiring Preference for the I-81 Viaduct project, a unique marketing and recruitment plan for the training was put in place to reach as many residents as possible. Open houses were held on Onondaga Nation in partnership with NYSDOT. As computers and internet are limited on the nation, flyers were distributed in a variety of ways. As a result of marketing and extensive help and support from the Onondaga Nation leadership, 28 students were accepted into the first cohort of this training program on the territory.

Second, NYSDOT, together with the stakeholders in the WorkSmart NY Syracuse Build Collaborative, were able to secure an FHWA HCWP grant to support the following training programs:

- Syracuse Build Pathways to Apprenticeship is a robust workforce pipeline of Syracuse residents aligned with upcoming employment opportunities, such as the I-81 Viaduct project.
- Syracuse Build is the overarching initiative that coordinates many construction training programs, including one designed in anticipation of the I-81 Viaduct project: Pathways to Apprenticeship. Syracuse Build aligns local government, anchor institutions, union apprenticeship programs, and construction firms into a coordinated network to supply highly trained candidates for construction and local trades projects by providing apprenticeship trainings/programming that match the needs of employers. Syracuse Build is led by a steering committee, managed, and staffed by CNY Works.
- Pathways to Apprenticeship is a pre-apprenticeship program that includes an 11-week program to prepare participants for union apprenticeships, entrance exams, and interviews. It is taught using the Multi-Craft Core Curriculum (MC3) pre-apprenticeship program that is part of Syracuse Build. This mayoral initiative was specifically designed to support the construction industry by connecting capable job seekers from historically marginalized communities with career pathways. The primary goal is to increase the number of low-income Syracuse residents, particularly persons of color and women, working on public construction projects and successfully entering unions.
- CenterState CEO serves as an incubator for programs such as Syracuse Build, as well as the intermediary manager to these partners providing some of the funding and developing a stronger pipeline of workers for available local opportunities.

Source: Interviews with Syracuse Build, CenterState CEO, SUNY EOC, and program websites.

¹⁰ <https://www.syracuseeoc.com/about-seoc>

Syracuse Build Successes: Relationships with trade unions helped at every juncture of the pipeline, from facilitating training programs tailored to union needs to collaborating on recruitment and job placement. The program also prioritizes student support and program buy-in from valued instructors.

SPOTLIGHT ON SUPPORTIVE SERVICES

An important component of the training necessary to take individuals from wanting to start a new career in construction to readiness to work on the job site is the variety of wraparound supportive services that help keep students enrolled and retained through graduation. Examples of supportive services include career coaches, childcare, stipends, high school equivalency courses, and reimbursement for equipment such as hard hats and steel-toed boots. However, an important element in considering supportive services is understanding local needs.

By identifying specific participant needs and barriers inherent to the construction industry, program partners provide tailored supportive services to help trainees succeed.

- Because transportation to training and future job sites, which are not always accessible by public transit, can be a barrier, CenterState CEO/Work Train launched and oversees the Vehicles to Work program, which is a collaboration of Syracuse Build's Pathways to Apprenticeship, Community Center Collaborative, Volunteer Lawyers Project, Legal Services of CNY, Cooperative Federal Credit Union, and the City of Syracuse Financial Empowerment Center. The program helps Pathways to Apprenticeship participants access a reliable, affordable vehicle. Supports include resolving Division of Motor Vehicle license issues/fines/fees; direct support for car repairs and gas; financial coaching; assistance with securing affordable insurance; and/or purchasing a car through a dedicated loan fund.
- Participants can work in the Syracuse Financial Empowerment Center, a free one-on-one financial counseling service for residents in and around the City of Syracuse, for various programs and supports surrounding financial coaching, credit assistance, and budgeting. These services are important for reducing barriers for beginning training or a new career, and are especially important when considering the budgeting skills necessary to navigate the seasonal nature of construction work successfully.
- Individuals in Pathways to Apprenticeship receive free legal advice and representation regarding issues affecting their short- and long-term employability. While this program focuses on legal services related to driver's licenses and criminal records, other legal issues facing job seekers can include public benefits, housing/eviction, employment law, consumer issues, LGBTQ-related issues, immigration, and child support collections.
- Syracuse Build includes a formal mentoring program that follows graduates into their construction careers to provide personal support to help them navigate entry into a new environment.
- Other supports are also offered, such as access to stipends for minimum wage during training so participants can afford to participate in training programs while missing current working hours to make this career transition, as well as subsidizing expenses such as the purchase of tools and union dues.
- Directing participants to other existing support systems, including assistance with housing, childcare, access to food, and so forth, is a critical component of ensuring student success and considering individualized needs.

Source: Interviews with Syracuse Build, CenterState CEO, and the SUNY Educational Opportunity Center.

INSTRUCTOR SPOTLIGHTS

Interview with Carol Hill, SUNY EOC

Q: *What are the goals, outcomes, and benefits of your program?*

A: “The SUNY Syracuse EOC Highway Worker Construction Program was designed to introduce populations that were negatively affected by the original I-81 project and move them through a career pathway that will lead to employment on the upcoming I-81 project. Students in the training program learn construction basics, OSHA-10, and flagging and then move into hands-on training working with both concrete and asphalt. There is no cost to the students to participate in our construction training program. Contractors are invited to the worksite to observe students and talk to them about various careers at their companies.”

Q: *What is your role in this collaborative, and can you describe how you work with other resource agencies in this connected effort to prepare local residents for jobs on the I-81 Viaduct project?*

A: “The SUNY Syracuse Educational Opportunity Center is the training partner in this collaborative training effort. In partnership with NYSDOT and contractors, we develop the curriculum and implement the training program.

Safety equipment and basic construction tools are provided by the SUNY Syracuse Educational Opportunity Center; however, we rely heavily on our various partners in the collaborative to provide support services to our students as needed. Our partners provide stipends, food, housing, childcare, transportation, and legal services. We have found that the retention rate for students during the training has increased based on the level of supportive services that they receive during the training.”

Q: *What makes an effective instructor?*

A: “A good instructor is an individual who has experience in construction but more importantly can be patient, flexible, and relate to the students’ needs. The majority of our students have limited knowledge of the various career pathways in construction and have limited experience with basic construction tools. Nothing makes an instructor smile more than watching a student learn how to use power tools correctly.”

Q: *What are best practices for a heavy highway construction training program?*

A: “Recruiting individuals who want to work, have a desire to learn new things, and are not afraid to get very dirty and sweaty.

Having multiple partners at the table who bring various resources to the students.

Working with local NYSDOT representatives and contractors to develop and revise the curriculum as needed. Job placements increase the more you engage with your partners.”

Interview with Ebony Farrow, Program Manager, Pathways to Apprenticeship

Q: What are the goals, outcomes, and benefits of your program?

A: “Pathways to Apprenticeship is a pre-apprenticeship program that prepares its participants to successfully compete for and obtain apprenticeships in a local union of their choice. It is a program that focuses on bringing apprenticeship opportunities to women and people of color. Pathways is a carefully crafted partnership of educational professionals, local unions, local workforce development representatives, local nonprofits, and service providers who collaborate for 11 weeks to create an individualized, holistic approach that empowers and educates each participant, and works with their unique strengths, as well as barrier assessment and removal. Pathways is paid training and local union professionals come into the classroom to teach the curriculum over the 11-week timeframe.”

Q: What makes an effective instructor?

A: “An effective instructor is an individual who has practical knowledge of their trade and a passion for sharing their knowledge, as well as someone who can pick up on social cues to better aid their students in the learning environment. Students in the program have a genuine interest in learning construction skills and obtaining living wage employment so they are excited to learn from someone who brings that same type of energy to their instruction.”

Q: What are best practices for a pre-apprenticeship construction training program?

A: “Having intentional recruitment policies/practices. Pathways recruitment is a dynamic, purposeful, and intense engagement process. To reach the audience we are charged with connecting to, we need to be patient and passionate about rebuilding the trust that has been broken over the years. Most people interested in construction enjoy the labor intensity and the hands-on learning aspects of it in contrast to being in a cubical or doing office work, so once we reach them, we are intentional about getting them through our three-step application process. We recruit individuals who want to work, have a desire to learn new things, and are not afraid to get very dirty and sweaty.

Classroom instruction taught by construction professionals. Bringing in local union tradespeople to provide classroom instruction has been a pivotal point and a meaningful way of building relationships within the program, as well as

building confidence in students and their sense of belonging in relation to the different brotherhoods/sisterhoods of the unions. It has been a major fact in the success of Pathways to Apprenticeship.

Having multiple partners at the table who bring various resources to the students.

Paid Training. The training is paid and this gives Pathways the ability to help supplement a trainee’s income while they learn and began to make the transition from one industry to the next. We run the training in the evening as well to encourage retention. A person’s ability to maintain household income during and post-program is essential to the success of that participant.

Assessment/Removal of Barriers. Barrier removal is a key component of the program. Pathways is designed to assess and then assist with barrier removal, including, but not limited to, driver’s license repair/attainment, credit repair and financial responsibility support, daycare resolutions, transportation assistance, and continued case management post-placement for the purpose of apprenticeship retention.”

“The Syracuse Build Initiative has made quite the impact around the City of Syracuse, Onondaga County, neighboring counties across New York State, the White House, and various States around the country as a model that is working diligently to build a diverse and skilled infrastructure workforce. Pathways to Apprenticeship is playing a critical role for local residents, women, people of color, and Syracuse Build is looking to create a pathway to in-demand local careers in construction by diversifying the talent pipeline by training, placing, and retaining workers through construction-related opportunities.”

– Christopher Montgomery, Director of Syracuse Build

PLACE

Many roads can lead to placement on the I-81 Viaduct project. Local residents and recent training program graduates can be placed on the job through the following options:

- Local Hiring Preference. The incentivized hiring of local individuals to participate in projects that benefit their own community.
- The OJT Specification. Revised OJT program and specifications for the I-81 Viaduct project provide expanded opportunities, a revised curriculum, increased number of reimbursed training positions per project, and the removal of common barriers to success.
- Direct Hiring. Traditional hiring of trainees by contractors or subcontractors on specific projects.
- Union Membership. Joining a union after graduating a training program can offer competitive wages, job security, organization, and other benefits to trained workers. New York State has a unique blend of union and non-union opportunities.
- “SB Network” Database. This is a database unique to the Syracuse area of individuals who have graduated from the training programs that will be maintained for contractors, subcontractors, and unions to identify prospective hires.

Tip: Commit to frank discussions and honest appraisals of the hiring process to address change effectively.



Source: Adobe Stock #290885484.

LOCAL HIRING PREFERENCE

As previously mentioned, the development of a Local Hiring Preference has been a key destination for this road trip. In May 2021, Local Hiring Preference was permitted on an experimental basis under Special Experimental Project 14 (SEP-14), which allowed for innovative contracting approaches not otherwise authorized under the law. Under SEP-14, State DOTs were required to submit a detailed application to FHWA describing their Local Hiring Preference framework (see the Federal Register, 87 FR 8081: Enhancing Highway Workforce Development Opportunities Contracting Initiative). Multiple key stakeholders from the Big Table, including NYSDOT, the City of Syracuse, the Urban Jobs Task Force, and the Legal Services of CNY, produced a framework to apply for Local Hiring Preference under SEP-14 over months of collaborative discussions. An application framework consistent with these requirements, applicable at the time, was developed by NYSDOT and the team.

However, at the time the application was submitted, the Bipartisan Infrastructure Law (BIL) was enacted authorizing recipients of Federal grant money, including NYSDOT, to implement a local or geographic or economic hiring preference related to the use of labor for the construction of a project funded by FHWA. Under the legal authority provided in BIL, NYSDOT could create a Local Hiring Preference in Syracuse without the SEP-14 application and approval process.

For more information on how to operate a Local Hiring Preference under BIL, visit the FHWA website at <https://www.fhwa.dot.gov/construction/hiringpreferences/>

Local Hiring Preference Goal and Incentive

Below is the specification for the Local Hiring Preference, which NYSDOT titled a “Local Hire Incentive,” developed for Contract 1 of the I-81 Viaduct project. The framework identifies a 15 percent employment hour goal and cap for the incentive payment, which represents about 1 million work hours. This percentage was agreed upon by the group using the best available data about the project work hours by analyzing the workforce hour projection from EIS, unemployment, and median income data, and estimating the number of graduates from the various training programs described here. The Local Hiring Preference was identified as an incentive program, with payments to the contractor for employees who meet the identified qualifications. The design builder or prime contractor can participate in this incentive program, as well as subcontractors.

Local Hiring Preference Qualifications

The framework also included the identification of specific ZIP Codes within the City of Syracuse, as well as the Onondaga Nation, to establish the geographic hiring preference (Tier 1). Next, the group worked together to identify the economic barriers listed on the next page that would serve as the economic preference (Tier 2).

Tip: Hold collaborative discussions among stakeholders to develop a Local Hiring Preference. Although the formal review and approval of the Local Hiring Preferences no longer require the same SEP-14 process described above, working to develop a framework consistent with those previous submittal requirements is a great exercise for the team to carefully consider the elements of a practical, implementable, and agreeable approach.

NYSDOT's I-81 Viaduct Project's Local Hire Preference

The Local Hire Program provides an incentive payment for the recruitment and employment of local residents who may have experienced economic hardship and/or barriers to employment.

Participation Goal

Good faith efforts shall be made to achieve a goal of 15 percent of the overall employment hours on the project being performed by qualifying residents of the targeted area(s).

Targeted Area(s)

- All locations within ZIP Codes 13202, 13203, 13204, 13205, 13207, 13208, 13210, 13224, 13290, and residents of the Onondaga Nation Territory.
- Locations within ZIP Codes 13206 and 13214 that are also within the City of Syracuse.

Minimum Candidate Qualifications (at the time of hiring)

- Tier 1 – Must currently reside in the targeted area(s) and must have resided in the targeted area(s) for the prior 6 months.
- Tier 2 – Must meet Tier 1 qualifications, or reside within ZIP Codes 13057 or 13209 and must currently face at least one of the following barriers to employment:
 1. Being a custodial single parent.
 2. Receiving federally funded housing assistance.
 3. Receiving HEAP, SNAP, or Medicaid.
 4. Lacking a GED or high school diploma.
 5. Having a criminal conviction.
 6. Emancipation from the foster care system.

Incentive Payment Rates

- Tier 1 – \$20/hour
- Tier 2 – \$30/hour

Source: NYSDOT I-81 Viaduct Project Phase 1, Contract 1 Request for Proposal.

Source:
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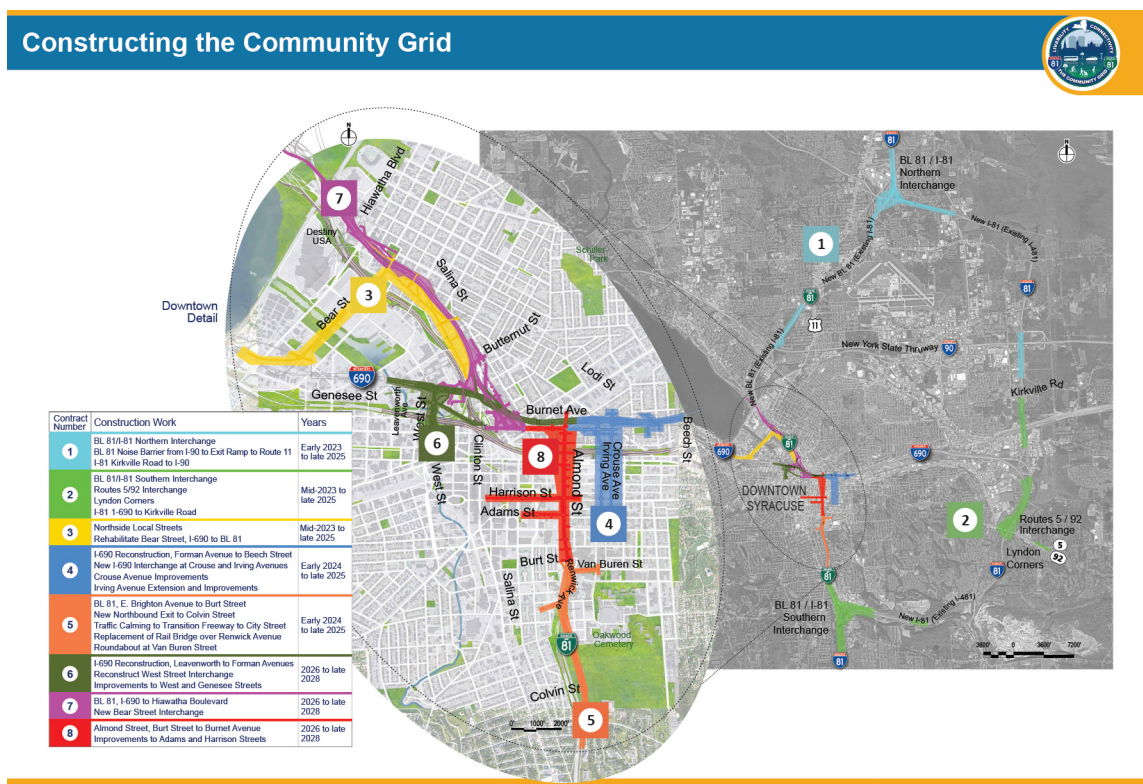


LOCAL HIRING PREFERENCE FULFILLMENT

A final critical component of the framework used to validate the 15 percent goal and incentive cap was an exercise to identify the workforce that could fulfill the Local Hiring Preference. Again, an assessment of the projected workforce hours by trade was examined using potential labor data from the population of Syracuse and unemployment rate and the projected number of graduates from various ongoing training programs previously described in this road map. The framework projected 756 graduates over the next 6 years from the NYSDOT OJT program, Pathways to Apprenticeship, NYSDOT's CDL program, and the SUNY EOC programs. Assuming 80 percent placement on the project, this amounts to approximately 605 graduates.

Source: NYSDOT SEP-14 Local Labor Hiring Incentive Program application.

Figure 6. I-81 Viaduct Project Contract Schedule Map



Source: NYSDOT, <https://webapps.dot.ny.gov/i-81-viaduct-project-contracts>.

NYSDOT also calculated the total cost of the incentive payments and contracting and payment mechanisms to implement this new specification. NYSDOT also identified important next steps for the Local Hiring Preference in construction. This includes initiation of a monitoring and reporting system to track the local hire hours that are new to NYSDOT projects. The Collaborative worked together to identify the required elements for the reports, which will be shared among the Collaborative in order to provide accountability, assisting the contractor(s) with finding employees to meet the Local Hiring Preference from local recruitment efforts and graduates from associated training programs, and to address emerging needs by the contractor(s) on these multi-year projects. This will enable the Collaborative to tailor programs to project and employment needs.

The I-81 Viaduct project will be constructed in eight phased contracts, in contrast to having one large contract, which may be more appealing to local contractors who may also have an inherent motivation to invest in the local workforce.



Letters of Support

Many letters of support for the Local Hiring Preference on this project were sent to the USDOT Secretary, the FHWA NY Division Administrator, and the NYSDOT Commissioner, including letters from the following:

- U.S. Senators Gillibrand and Schumer
- NYS Assemblymembers Magnarelli and Stirpe
- City of Syracuse
- Onondaga County
- Urban Jobs Task Force, with signatures from the CNY Solidarity Coalition, Westcott Community Center, Syracuse Peace Council, Syracuse Cultural Workers, Workers' Center of Central New York, New York Civil Liberties Union – Syracuse Chapter, National Action Network – Syracuse Chapter, Cooperative Federal Credit Union, YWCA of Syracuse and Onondaga County, Hall Placement & Training, Huntington Family Centers, PEACE, Inc., Volunteer Lawyers Project of Central New York, Circare, Syracuse Northeast Community Center, Northeast Hawley Development Association, Inc. (NEHDA), Democratic Socialists of America, Center for Community Alternatives, Onondaga Earth Corps, Alliance for a Green Economy, and Greater Syracuse Works
- CNY Works
- SUNY EOC
- CenterState CEO
- Legal Services of CNY
- New York Civil Liberties Union
- Upstate Minority Economic Alliance
- North Atlantic States Regional Council of Carpenters
- International Brotherhood of Electrical Workers, Local Union 43

NYS DOT OJT SPECIFICATION

Another mechanism to place interested individuals in entry-level jobs on the I-81 Viaduct project is the revised and expanded NYSDOT OJT specification. The NYSDOT OJT program is a contract-based program that includes a standard specification in construction contracts requiring the contractor to utilize a minimum number of apprentices or trainees, or a demonstration of good faith efforts, on their project based on dollar value. Under this program, the contractor must provide meaningful and effective training of apprentices/trainees leading to their qualification as entry-level trade workers, professional support workers, or journeymen in trades for the highway construction industry.

To qualify, an apprentice/trainee shall be enrolled in either an NYS Department of Labor registered apprentice training program or an NYSDOT OJT program approved by FHWA. The program must be for a trade or profession that is in support of the highway construction industry, and the apprentices and trainees may be employed by the prime contractor or a subcontractor. Consistent with the 23 CFR Part 230 requirements, there is a requirement to prioritize hiring women, minorities, and disadvantaged individuals and to conduct good faith efforts to do so. NYSDOT monitors this program through the use of Monthly Training Progress Reports and their standard Civil Rights reporting system.

The OJT specification works in conjunction with the traditional Equal Employment Opportunity (EEO) goals for the contract, which were developed by the U.S. Department of Labor to be established in New York on a county-by-county basis. The EEO utilization goal for minorities in terms of workforce hours for the I-81 Viaduct project location in Syracuse is 3.8 percent. The EEO goal for women is 6.9 percent nationally.

Table 4. Standard OJT Specification for an NYSDOT-Sponsored Project

Contract Bid Amount	Minimum No. of Apprentices/Trainees
< \$5M	No requirement unless specified in the contract documents
\$5M to < \$10M	2
\$10M to < \$30M	3
\$30M to < \$100M	4
≥ \$100M	1 per \$25M of contract bid amount (e.g., 9 for a \$240M bid amount)

Source: NYSDOT I-81 Viaduct Phase 1, Contract 1 documents.

For Contract 1 of I-81, Table 5 supersedes the standard specification; it is anticipated that this will be included in the upcoming contracts for this project. The minimum numbers have been doubled from the standard specification. Consistent with the traditional specification, contractors and design builders will be reimbursed monthly for apprentices and trainees at 35 cents per hour for the total hours of qualifying training completed; however, if employees filling these slots are also fulfilling the Local Hiring Preference, the Local Hiring Incentive payment will prevail and the reimbursement under this specification will be waived.

Table 5. Contract 1 for I-81 Supersedes Standard OJT Specification for an NYSDOT-Sponsored Project

Sum of the Following: Design Build – Construction Work Items, Design Build – Extra Work Item, and Design Build – Site Mobilization Item	Minimum No. of Apprentices/Trainees
< \$5M	No requirement unless specified in the contract documents
\$5M to < \$10M	4
\$10M to < \$30M	6
\$30M to < \$100M	8
≥ \$100M	2 per \$25M of contract bid amount (e.g., 18 for \$240M amount)

LEARNING FROM OTHERS

Since implementing a Local Hiring Preference has recently been authorized under BIL and few HCWP projects have been completed under the new system, our final destination on this road trip is not certain. Following the maps set by other projects can increase the likelihood of success for the I-81 Viaduct project. FHWA and NYSDOT are actively participating in all available peer exchanges and learning from others. We also hope that this road map leads to inquiries from others so we may better understand the typical speed bumps to success encountered by workforce development projects across the country and continue to develop and refine best practices.

Below is an example of a project that shared valuable insights with New York in developing the I-81 Local Hiring Preference. Discussions with the Central 70 Project staff provided valuable insights into the development of a Local Hiring Preference and contracting methods, as well as the importance of continuing to partner with multiple stakeholders at the table.

Tip: Research previous and existing Local Hiring Preferences. You can learn helpful strategies to address common challenges by discussing with others who have traveled this road before. However, it is critical to bear in mind the importance of a project's local context as this informs the specifics of size, workforce and trade needs, contractors, and employment opportunities.

The Central 70 Project was located on the north side of Denver, CO, and included widening and reconstructing a 10-mile stretch of highway, adding one express lane in each direction, and removing a 57-year-old viaduct and placing a park over a portion of the lowered interstate. We conducted a virtual peer exchange with Colorado DOT staff to learn about the Local Hiring Preference and supports developed for their project, which was authorized under SEP-14.

Identify – In 2016, Colorado DOT contracted with the Community College of Denver's Center for Workforce Initiatives to perform a community job readiness and workforce needs assessment. According to the survey, the top in-demand heavy highway construction positions were laborers, equipment operators, first-line supervisors, line installers, and repairers

Train – Colorado Resource Partners (CORE) is a collaboration of training and community resource partners who created the WORKNOW employment platform to inform, assess, connect, and advance job candidates from pre-training for up to 18 months after employment.

Place – Local Hiring Preference goals were established that included 760,000 hours worked by individuals residing in the 13 identified local ZIP Codes. Half of the local hire hours needed to be new hires. The project recognized that in addition to available trained workers, supportive services for trainees and new hires are also essential for success in Local Hiring Preference programs.



Source: Both image and text from Colorado DOT.

POST-TRIP TAKEWAYS

The WorkSmart NY Syracuse Build Collaborative meets monthly to discuss all elements of the identify, train, and place workforce development pipeline to support job placement on the I-81 Viaduct project and to provide transparency and troubleshoot challenges in real time. Because so many stakeholders are represented by the Collaborative, resources and support for any road bumps are often quickly addressed by the team through solution brainstorming. Just as EDC programs rely on trial, error, and collaboration among States to create effective HCWP initiatives, consistent evaluation and utilization of resources for the betterment of the I-81 Viaduct project are key to success.

Identify the Right Project

This was a major construction project, which held numerous career opportunities in multiple trades.

Take Your Time

This project had public focus and attention for many years prior to construction, including robust public outreach, which provided the time, attention, and opportunity to foster the relationships among stakeholders that were needed to prepare for discussions related to workforce development.

Identify Needed Skills and Job Requirements

Industry should inform what jobs and skills are needed so that partners in education and training can hone their offerings directly to those occupations, skill sets, prior experience, and job needs.

Understand the Labor Demand

It is important to understand what positions and skill sets are most needed to help complete ongoing or upcoming projects.

Connect With the Community

Speaking directly with community members and local stakeholders can help frame workforce needs and job eligibility and is important for understanding what positions and skill sets are most needed to help complete ongoing or upcoming projects, as well as participate in fair hiring practices.

Collaborate

When reaching out to potential partners to form a working group, recruit as far and as wide as possible and ask the primary partners to identify others who should be included—anyone who has the skills and expertise necessary to bring new ideas to the table should be encouraged to participate. Having a broad coalition of partners can help ideas spread from one group to another in an organic manner.

Recruit Widely

The first step in recruitment is identifying the target audiences and the means through which they can be contacted. All pathways, including educational systems and social media, should be utilized to identify interest in positions.

Leverage Diverse and Flexible Funding Opportunities

Among other local, State, and Federal funding, as well as foundation and corporate grants, FHWA STIC and HCWP grants were key to supporting and developing training capacity on this project.

Evaluate Success and Reroute

It is important to take time on this road trip to evaluate what strategies have been effective and which have not. Rerouting, taking exits, and looking at the map will help to keep your team on track.

Inquire About Other States' Projects

When faced with challenges, it can be helpful to learn from other States that have had projects with a Local Hiring Preference to find strategies to overcome barriers, workforce shortages, and so forth.

Utilize Recent Graduates

Alumni are key figures in helping to recruit new cohorts for training programs.

Tailor Training to the Employer

Discuss training program and recruitment efforts with industry in order to ensure that graduates meet employment needs.

Passion and Leadership at All Levels

Having leadership and support from all levels is key to progress toward a common goal. Having trainers and community partners who are connected, as well as driven by a desire to help those around them, will maximize the effectiveness of supportive services, thus increasing successful outcomes.



Source: Adobe Stock #453849266.

NOW LET'S HIT THE ROAD: NEXT STEPS

The WorkSmart NY Syracuse Build Collaborative is continuously supplementing the Local Hiring Preference pipeline, taking steps to bolster the likelihood of success of job placement for local residents on the I-81 Viaduct project. Most importantly, hiring local residents on this project remains a focus of this work, a destination we hope this road map leads toward. These lessons learned can be helpful to others on their workforce development road trips.

ADDITIONAL RESOURCES

- [U.S. Department of Transportation](#)
- [Federal Highway Administration](#)
- [FHWA – Every Day Counts \(EDC\)](#)
- [Strategic Workforce Development: The Highway Construction Workforce Partnership \(HCWP\) EDC-6](#)
- [HCWP Playbook](#)



GLOSSARY OF KEY TERMS

With so many acronyms, work in heavy highway construction can be complex. This glossary of key terms can help clearly explain highway construction programs to partners.

BIL	Bipartisan Infrastructure Law
CDL	Commercial Driver's License
DOL	Department of Labor
DOT	Department of Transportation
EDC	Every Day Counts
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement (Draft = DEIS, Final = FEIS)
FHWA	Federal Highway Administration
HCWP	Highway Construction Workforce Partnership
NEPA	National Environmental Protection Act
NYSDOT	New York State Department of Transportation
OJT/SS	On-the-Job Training/Supportive Services
ROD	Record of Decision
STIC	State Transportation Innovation Council



