

Gold Standard Playbook for Workforce Development

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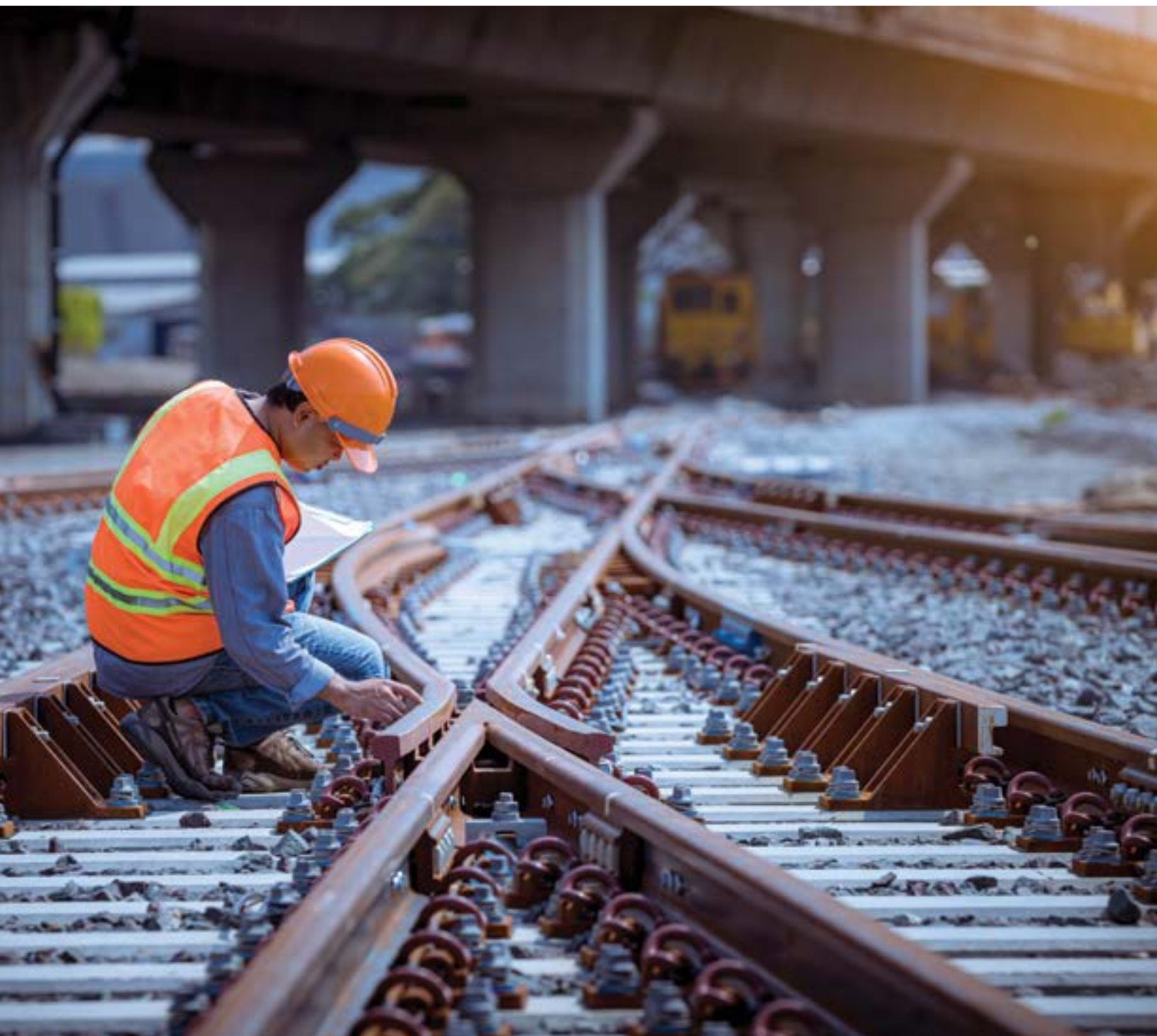
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GOLD STANDARD PLAYBOOK FOR WORKFORCE DEVELOPMENT

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Executive Summary

WSP USA and Accelerator for America (AFA), with support from The James Irvine Foundation, developed this Gold Standard Playbook to set a standard for inclusive and equitable workforce development in infrastructure. If done right, workforce development programs funded by state, federal and private capital can build enduring community wealth, changing the trajectory of individuals, families, and neighborhoods.

This Gold Standard Playbook is built on analysis of best practices in California given the state’s already significant infrastructure spending, including the State’s \$52 Billion Road and Repair Accountability Act (SB1), Los Angeles County’s \$120 billion Measure M, and most recently, the Community Economic Resilience Fund (CERF), a historic \$600 million initiative to develop high-quality, accessible jobs in industries supporting a carbon-neutral future. While centered on California, this Playbook offers insights that can be applied by owners and leaders nationwide. Equitable workforce development initiatives have become especially crucial as unprecedented federal, state, and local funding create a myriad of new opportunities to meet workforce demand.

Infrastructure is already a significant share of the construction workforce and touches a wide array of occupations. Workforce development initiatives will become especially crucial to meet growing labor demands in the infrastructure sector as projects funded by the 2021 Infrastructure Investment and Jobs Act (IIJA), containing \$550 billion in new spending.

In addition to meeting growing labor needs, workforce development initiatives with an emphasis on increasing inclusion in the economy will become especially important to meet federal policy requirements. The federal initiative Justice40 prioritizes federal funding in seven key investment areas, including workforce development, in support of “delivering 40 percent of the overall benefits of relevant federal investments to disadvantaged communities.” Additionally, the initiative places a spotlight on the importance of workforce development and creating sustainable pipelines of workers. Therefore, this moment is especially crucial in identifying the best practices for creating equitable workforce development programs.

While demand for traditional skilled labor in transportation expansion and maintenance projects continues to increase, new technologies in transportation such as electrification are fueling demand for new skills and an expanding workforce. California is moving quickly to implement those new technologies. It is an ideal time to intersect this anticipated demand for an expanded workforce with new technology-focused skills with the state’s investment in workforce development.

Project owners have the unique opportunity to leverage their investments as a means of establishing workforce development programs that become institutionalized within organizations, outliving individual projects.

Each Gold Standard workforce development program must include two prerequisites:

Leadership

- Leaders set a vision to integrate workforce development principles into the company culture at an institutional level and back up their priorities with funding and resources.

Define the Community



Figure 1 Workforce Development Partnerships

- Successful programs are based on meaningful partnerships with local contractors, labor unions, community-based organizations, and non-profits or educational institutions who are already invested in and trusted by the local community. These partners will help project owners identify the needs of the workforce. It is necessary to clearly define the targeted community and tailor the program to the needs of that community so that the project owner’s organization’s goals align with community’s goals.

Further, a comprehensive workforce development program has Five Pillars that are built upon the prerequisites of leadership and community.

Figure 2 Workforce Development Pillars



The following table describes key insights for each Pillar provided by this Playbook.

Pillar	Key Insight
Project Planning	Informing the workforce development process early in program or project planning allows project owners ample time and capacity to fill the pipeline with workers who have the required skills.
Stakeholder Engagement	Developing key partnerships with community stakeholders helps workforce development programs directly target the needs of a community and provide a greater range of services.
Contracts and Procurement	It is essential that owners build both quantitative workforce development goals and compliance enforcement into contracts to ensure measurable workforce outcomes.
Support Services	Adding wraparound services or job readiness training to workforce programs can make workplaces more accessible and prepare workers for careers beyond individual projects.
Data Collection and Enforcement	A plan for data collection should be integrated into each stage of the project and used to coordinate all Pillars. The data should inform changes to the workforce development program, creating an iterative approach to the process.

A Gold Standard Workforce Development Program integrates all Five Pillars into a detailed, comprehensive roadmap throughout the project development process that reaches beyond typical labor sources, accesses communities previously ignored, and executes a project in an effective and iterative

manner. A project or program properly integrating all Five Pillars is certain to contribute to the ability of local communities and families to access the prosperity these jobs are meant to provide.

Figure 3: Workforce Development Roadmap



INTRODUCTION

This Workforce Development Playbook – a menu of malleable strategies and tactics that can be applied in different situational contexts – is meant to serve two purposes:

- To document best practices in workforce development focusing on California but with applicability nationally; and sources.
- To set the first “Gold Standard” guiding owners who want to incorporate workforce development goals as part of an infrastructure project.

To develop the Playbook, WSP and AFA gathered information on current standards, practices, and barriers to workforce development efforts through interviews with key stakeholders across the industry in California, including project owners, community benefit organizations (CBOs), and government leaders.¹

Part 1 describes two prerequisites to any workforce development program that are integrated into each Pillar: leadership and defining the community.

Part 2 describes each of the Five Pillars using specific strategies and tactics.

Part 3 describes the Gold Standard Program – the first comprehensive summary of “best practices” for workforce development – to illustrate how the Pillars are best implemented as a comprehensive approach.

PART 1 PREREQUISITES

There are two prerequisites to a Gold Standard workforce development program that transcend each of the Five Pillars: Leadership and Defining the Community.

LEADERSHIP

Organizational leadership determines whether workforce development is a policy priority. Leaders articulate a vision and then implement that vision with the staff, contractors, and community. Leaders back up those priorities with funding and resources for the program. Each Pillar below assumes that leaders have already done these things.

Leaders begin by identifying the objectives of the organization and then setting workforce development goals that align with the organization; it is up to them to integrate workforce development principles into the company culture at an institutional level.

No workforce development endeavor is likely to succeed without leadership buy-in.

Leadership should consider the following questions when developing internal workforce development goals and standards:

- ✓ How is workforce development defined in the organization?
- ✓ Is workforce development one of the organization’s main values? If so, how is that communicated internally and externally?
- ✓ What are the workforce development goals or requirements for the organization’s planned investments?
- ✓ Does the implementation strategy and key participants in the implementation strategy adequately reflect these goals?
- ✓ Does the organization have the right partnerships with others whose goals align with the organization’s and who have the resources to provide key contributions towards the success of the program?



¹ More information on the background and methodology for the Playbook is available in the Appendix.

DEFINE THE COMMUNITY

Determining the target populations for workforce development programs helps leaders decide which partnerships will be the most useful. Owners can establish relationships with groups already invested in and trusted by their targeted “community” in order to identify the needs of their workforce and tailor the program to those needs. Through these partnerships, project owners can establish how an organization’s goals can align with its community’s goals.

Project owners will not achieve their workforce goals or engender trust among community members if relationships are only attempted at the time of hiring: project owners must be intentional and forward-thinking to establish key long-term relationships with partners early on.

“Community” is defined differently by each organization; while it often refers to a specific geographical context in which a project takes place, it could also mean a group of people identified by project owners as a target workforce population that is currently underrepresented. As part of the workforce development design process, project owners should consider the following questions to identify the target communities for their program:

- ✓ What groups are the most impacted by our projects?
- ✓ Is there a specific community that will see more investment in the coming years?
- ✓ Who has been underrepresented in the workforce of past projects?

Uniform workforce objectives not tailored to the community may be unrealistic if the necessary local labor and community resources are not available to fulfill the workforce goals.² After defining priority communities, project owners should partner with community institutions to build up the workforce capacity in areas where it may not already exist.

Create partnerships based on defined communities: If a project owner aims to specifically increase opportunities for an underrepresented population, say Black or women residents, they may benefit from partnering with a targeted pre-apprenticeship program, many of which exist within major cities across the country.

² For example, one project owner noted the consistent difficulty in meeting local hiring requirements when working in certain areas due to a lack of trained labor in the desired fields.

**PART 2
THE FIVE PILLARS**

A comprehensive workforce development program has five Pillars, which reflect functional areas that represent the stages of project development and delivery. While each Pillar may stand on its own, a process that integrates each Pillar works best.

1. Project Planning
2. Stakeholder Engagement
3. Contracts and Procurement
4. Support Services
5. Data Collection and Enforcement



PILLAR 1: PROJECT PLANNING

Leadership

At the planning stage, leaders identify key champions, both internally and externally, to facilitate momentum and to establish a culture that will sustain the workforce development program once project planning has concluded. Designating a specific leadership role within the organization to manage the planning process and then later deliver workforce training programs across all projects ensures consistency.

Strategy

Project planning sets goals and puts an actionable plan in place to build a pipeline of workers who are ready when needed for a particular project.

Top Tactics

✓ Forecast Labor Demand and Follow Trends.

By the time the need for labor on a specific project comes around, the time to prepare the workforce has already passed. Projects that set local workforce goals need time to fill the pipeline with workers who have the required skills. For large organizations, one method project owners can use is to forecast labor needs during their capital planning process.

A best practice is to set goals based on industry trends rather than specific projects. Industry trends are more reliable for identifying workforce needs because trends are not specifically tied to a project or program timeline; planning around industry trends may offer more flexibility when it comes to planning workforce needs. When workforce development is informed by trends, as opposed to projects, workers receive long-term career

Building a pipeline of skilled workers for the future requires predicting how technological advancements drive workforce needs. For example, with the proliferation of electric vehicles, more electrician-based trades may be needed to service vehicle charging infrastructure.

opportunities beyond one project. Organizations benefit by having a skilled and ready workforce. For example, the California Energy Commission produces reports that forecast the state's energy systems and trends so that employers can recruit and train workers in those new technologies.

✓ Determine Supply and Research Barriers to Entry.

Owners can leverage the capital planning process – of which public engagement is a key component – to survey communities and identify gaps in the pipeline as well as to define what is meant by “the local community” or underutilized workforce. One method is to partner with a local community-based organization focusing on pre-apprenticeship programs; these organizations often have rigorous community demographics and workforce data available. In addition, these organizations will help owners better understand why certain jobs are not attracting enough workers. The barriers to entry should be carefully identified, especially if one of the goals is to diversify the workforce and attract new people.

✓ Budget Appropriately.

Owners should include funds for workforce development programs in the budget for each project and invest in organizational capacity necessary to implement a workforce development program across multiple projects. An integrated planning approach will incorporate the organizational resources to support workforce development as part of the organization's capital planning process.

PILLAR 2: STAKEHOLDER ENGAGEMENT

Leadership

Leaders need to be visible in the local community. While in the community, leaders highlight the workforce development efforts through tours and speeches, encourage contractors to be actively engaged with the workforce, and express confidence in the skills of the workers. Visibility also attracts more candidates and project partners. In addition, leaders set goals for partnerships that can be helpful in managing expectations while ensuring accountability.

Strategy

Developing key partnerships strengthens the workforce development program by directly targeting the needs of the community as well as providing expertise and increased capacity in training and support. Partners include contractors, unions, CBOs, local government agencies, and educational institutions. The more collaboration and information sharing between stakeholders, the greater likelihood of success.

Top Tactics

✓ Coordinate Early and Facilitate Ongoing Communication and Information Sharing.

Owners who meet early on with project partners, especially community-based organizations responsible for pre-apprenticeship and apprenticeship programs, have more established and resilient partnerships. These organizations provide the expertise necessary to train workers in the right skills before owners need to fill positions on a project. These organizations are most connected to the potential workforce and have outreach capabilities that project owners do not. Additionally, early coordination leads to better information sharing – a key component of stakeholder engagement. For example, project owners, CBOs, and local governments can coordinate to create a database of local companies who can more easily attract local workers. Having access to such information helps owners predict the availability of regional workers in skilled trades to identify gaps. This coordination must be ongoing. Periodic meetings during project development with stakeholders that are assisting with pipeline building allows for modifications as the process goes on.

✓ **Partner with a Broad Base of Stakeholders.**

Stakeholders are a big group: local governments, CBOs, philanthropies, community colleges and trade schools, unions, and contractors. Owners are not necessarily the experts in the services needed for a workforce development program, but stakeholders can be. These stakeholders understand the community context better than owners and will hold owners accountable to realize equitable outcomes. These partners – not necessarily the owner directly – provide recruitment, training, and support services. Developing a diverse base of partners from the stakeholder community gives owners more resources and flexibility to provide a greater range of services and to reach wider audiences than they could on their own. For example, community colleges reach wide audiences and make curriculum accessible such as offering online courses; CBOs run pre-apprenticeship programs.

✓ **Build Coalitions and Standardize Curriculum.**

Sector partners with similar workforce goals tend to compete for workers. Taking a collective approach – whether driven by an industry or labor unions – combines resources to build out a fuller worker pipeline and reduce the burden on a single organization. For example, the Association of General Contractors and the California Building Trades each provide a coordinated platform for training so that all members can rely on consistency in the skills of the workforce. Designing curriculum to ensure all workers have uniformity across project and location will allow for stronger and more dependable pipelines. Part of this effort involves ensuring that unions and contractors recognize the curriculum used in the workforce program (accreditation). For big organizations with the capacity to train large numbers of people, curriculum can range beyond the immediately needed trade skills to benefit the industry as a whole.³

PILLAR 3: CONTRACTS AND PROCUREMENT

Leadership

Leaders should support the evaluation of workforce development established goals and criteria as contractual obligations for the duration of the project. Without a legal binding agreement, workforce development is only a concept and a good idea, at best.

Strategy

All businesses, large or small can benefit from workforce development. Incorporating workforce development principles into the procurement process and contract requirements gives a project owner leverage with the project’s primary employer – contractors. Since every organization has its own procurement process, tactics should be tailored to the specific process already in place.

³ For example, one interviewee noted that they train real estate agents on valuing homes with new and alternative energy storage types like solar panels, better facilitating their energy business.

Top Tactics

✓ **Articulate Owner Commitment to Workforce Development.**

Similar to how a DBE component is incorporated into a procurement, setting a standard to prioritize developing a diverse workforce by setting quantitative goals can lead to measurable outcomes. An achievable, data-based goal requires an assessment of the scope of work during the planning process to determine what trades or positions would be most appropriate for the project.



The request for qualifications (RFQ), request for proposals (RFP), or other solicitation requests should clearly articulate the project owner’s commitment to workforce development. Owners should thoroughly clarify the expectations for what to include in a proposal to demonstrate a contractor’s corresponding commitment. If owners intend to contribute support for the contractor’s workforce development program, such as support services offered through a community partnership, that support should be specifically detailed in the solicitation. Lastly, the solicitation should describe the project requirements contractors will be expected to satisfy, which may include workforce diversity, union-labor participation, and geographic-specific goals.

✓ **Back-up the Commitment by Incorporating Workforce Development into the Proposal Evaluation Criteria.**

During the contractor selection phase, a robust, realistic workforce development program can be specifically added as one element of the evaluation criteria. The criteria should articulate that the owner is looking for a willing partner in workforce development. A contractor should demonstrate a vested interest in its proposal, reflecting that it has done research, has incorporated dedicated personnel into its staffing plan that

will work with the community and the owner, has previously implemented successful workforce development programs, and is committed to meeting or exceeding expectations. Workforce development professionals should be on the selection committee to evaluate bidders' stated commitments.

✓ **Incorporate Goals and Oversight Rights into the Contract and Build Institutional Capacity to Enforce the Contract.**

The contract should include owner oversight rights and requirements for contractor reporting and cooperation with audits. In addition, it is essential that owners build contract enforcement capacity into their organizational processes to manage compliance with workforce development goals. The metrics obtained through these rights are used to bolster the tactics in Pillar 5: Data Collection and Enforcement.

PILLAR 4: SUPPORT SERVICES

Leadership

Leadership should understand the value of support services and directly invest in pre-apprenticeship and apprenticeship programs and other support services to signal that leadership is serious about the workforce development program and pipeline building.

Strategy

Investments in support services that attract and retain potential workers normally left out of apprenticeship programs due to lack of job readiness ensure a fuller worker pipeline. Support services bridge the barriers to entry and retention of the underutilized workforce. Services might include wraparound services like childcare and transportation, but also job readiness programs. These services make workplaces more accessible and inclusive for underrepresented workers.

Top Tactics

✓ **Understand Community Context.**

While public engagement is the standard for many infrastructure projects, going a step beyond and understanding the workforce supply and the specific community needs related to employment can lead to more inclusive and engaged outcomes for the community. For example, one project owner noted the consistent difficulty in meeting the desired number of women hired on each project because unions are dominated by men. Project owners can better ensure their goals - like gender inclusivity - are met by formalizing relationships with local organizations that can identify what resources would best enable women in the area to enter the workforce. Developing a formalized training program that provides childcare may significantly increase access to employment for women in one area, while a different community may benefit from expanded transportation access to the job site. Understanding community context will enable project owners to properly address their workforce's needs and in turn, achieve their organizational workforce development goals.

✓ **Partner With/Invest in Pre-Apprenticeship Programs.**

Owners can coordinate and fund pre-apprenticeship job-readiness programs specifically for the trades they expect to use on projects. Pre-apprenticeship programs assist people in preparing to enter the workforce and can especially benefit people with histories of incarceration or long periods of unemployment. Pre-apprenticeship programs help overcome barriers to entry such as transportation, child-care, education requirements, and soft skills. These programs give individuals a clear idea of how employment as a skilled worker may play out day-to-day at the job site. Case managers can help with licenses, rental assistance, transportation to the worksite, acquisition of tools, and access to food stamps. One way to codify this critical piece is to include support services into community benefits agreements for major projects.

✓ **Emphasize careers instead of projects.**

Support services help individuals leverage the opportunity to work on one project into a long-term career by helping workers obtain the right skills, training and certifications to move on to the next project.





PILLAR 5: DATA COLLECTION AND ENFORCEMENT

Leadership

Leadership should be open and supportive of continuous improvement to the workforce development plan but hold the organization accountable to achieve measurable outcomes. By being involved in aspects of enforcement, leadership can help guide the iterative process and ensure that lessons learned get put back into the program.

Strategy

For an iterative approach, progress needs to be measured and evaluated, both in terms of enforcing contractor standards and in evaluating the progress of the program overall. Including measurable standards ensures that workforce development goals are prioritized and that every partner in the project has similar expectations.

Top Tactics

✓ **Collect Detailed Workforce Participation Data to Reinforce Data-Driven Goals.**

Regardless of demands to report successful outcomes, accurate data collection is essential. Owners should quantify success by tracking participation of specific populations in the workforce using a variety of

metrics: project usage, hours worked,⁴ daily attendance, and retention. In addition, owners should track data on which support services and learning formats best attract and retain people from targeted communities. A plan for data collection should be integrated into each stage of the project and used to coordinate all Pillars.

✓ **Evaluate and Validate Contractor Reports.**

Requiring contractors to provide monthly reports on the number of workers from targeted communities reinforces the workforce diversification goals set by project owners. Creating standardized reporting templates ensures consistent, comparable data from project to project. In addition, owners should evaluate and validate the contractor-provided data with independently collected data. One method of doing this without resources coming from the project owner is to require the contractor to hire an independent agency to verify its workforce development compliance.

✓ **Assess Impacts of Policy Decisions.**

Partnerships with stakeholders, such as community-based organizations, should include a feedback loop and close-out process to survey and assess the impacts of workforce development policies on communities. This feedback should inform changes to the workforce development program that hopefully by then has been institutionalized within the organization beyond the length of the project.

⁴ One interviewee suggested using Skill Smart, a workforce software platform.

PART 3 A GOLD STANDARD PROGRAM: BRINGING IT ALL TOGETHER

A Gold Standard represents the “best of” practices for workforce development that set the bar for project owners. A Gold Standard program requires a comprehensive, iterative approach.

For example, the planning process should be data-driven and informed by stakeholder engagement. Identifying stakeholders early and keeping them engaged throughout project delivery will assist in ensuring consistent outcomes. The contract goals for a diverse workforce should be informed by data from communities as well as input from stakeholders and community experts who understand what is actually achievable within the community context. Many procurement requirements may not be met without sufficient support services and pipeline building activities undertaken during the project planning process. While each Pillar may be implemented independently, a successful workforce development program fully integrates the tactics from each Pillar.

Thereafter, the concept of the Gold Standard is not intended to be stagnant, however, but rather iterative and self-informing. As this first Gold-Standard is implemented, lessons learned will lead to better outcomes as new practices are implemented, evaluated, and measured. To that end, the Gold Standard should increase over time.

As can be seen in the roadmap below, the various tactics outlined in the above Pillars are executed in an integrated fashion, throughout the development of a project. This not only creates a comprehensive approach to workforce development on a project basis, but allows for an iterative program that adapts and learns from changing conditions. Every project owners’ approach may be different, and users of this roadmap and Playbook should feel free to adjust tactics and strategies to fit their workforce needs and agency capabilities.

Figure 3: Workforce Development Roadmap





APPENDIX

BACKGROUND AND METHODOLOGY

To develop the Playbook, WSP and AFA gathered information on current standards, practices, and barriers to workforce development efforts through interviews with key stakeholders across the industry including project owners, CBO's, and government agency leaders. Rather than focusing on one sector, the research team interviewed people from a range of infrastructure sectors. Each interviewee has played a role in developing workforce in their field or organization, either through designing curriculum, coordinating partnerships, or overseeing contracts. Interviews were chosen as the primary research method in order to identify the value in the many different approaches taken to work development. This qualitative approach allowed the team to pursue open-ended research rather than quantify results based on a strict set of outcomes.

The Playbook complements the *California Transportation Infrastructure Landscape Report*, produced by WSP and Accelerator for America (AFA) with support from the Irvine Foundation. Through a robust coordination effort involving contractors, labor unions, project owners, and community organizations, the Landscape Report describes the landscape of surface transportation investment in the state and how those investments might translate into job creation. The Landscape Report describes in both quantitative and qualitative terms the jobs that might be created as a result of the planned infrastructure investments.

Why Infrastructure?

On November 5, the U.S. House of Representatives passed the Infrastructure Investment and Jobs Act (IIJA) in a 228 to 206 vote, sending the legislation to President Biden to be signed into law. The IIJA contains \$550 billion in new spending above baseline and total federal spending of over \$944 billion over five years, providing new federal funding to support roads and bridges, public transit, freight and passenger rail, ports, and airports; investment in broadband infrastructure; fixes for water systems; modernization of the power sector; and improvements for climate resilience. The influx of investment in infrastructure will increase both the quantity and range of skilled workers needed.

While the Justice40 Initiative and other federal priorities around workforce development prioritize reaching disadvantaged communities, many interviewees noted that reaching a diverse workforce at times has been a challenge. Most contractors hire from the same pool of qualified workers, which reinforces the existing inequities of the workforce. To remove barriers to opportunity for underutilized communities and meet the standards set by the Justice40 initiative, workforce development programs should expand the services provided and workforce diversification should be etched into contracts.

Infrastructure is already a significant share of the workforce and touches a wide array of occupations. In 2020, for example, infrastructure jobs were 11 percent of all jobs. Brookings scholars identified over 90 distinct infrastructure occupations—roles that are directly involved in infrastructure, as opposed to spurred through indirect economic growth. Based on 2012 data, most infrastructure workers were in operation roles, followed by construction, design, and lastly governance of infrastructure-related physical assets. By 2019, some of the occupations with the highest employment numbers included laborers and freight, stock and material movers, truck drivers, electricians, plumbers, and highway maintenance workers. Many infrastructure workers are also in office settings with logistics, managerial and administrative roles in warehouses and business services.⁵

Workforce development initiatives will become especially crucial to meet changing demands supported by the IIJA. Furthermore, increasing the diversity and reach of workforce development initiatives is especially important given the development of the Justice40 initiative, which prioritizes federal funding for projects that support the goal of “delivering 40 percent of the overall benefits of relevant federal investments to disadvantaged communities.” Workforce development is included as one of the seven investment areas impacted by Justice40. Therefore, this moment is especially crucial in identifying the best practices for creating equitable workforce development programs.

Why California?

As the fifth largest economy in the world, California is uniquely positioned to invest in workforce development. California has already made major investments in infrastructure that will lead to massive job creation.

In 2017, the legislature passed the Road and Repair Accountability Act (SB 1), which provides \$52 billion for local and state roads over the next 10 years. Supported by the state's contracting industry, the legislation provides a consistent source of funding for surface transportation. Even with that level of state investment, California will be a major beneficiary of the IIJA. In addition, California has made several commitments to reduce emissions and transition to a clean energy future. This transition will open the opportunity for massive job creation, with the state's transition to all-electric homes and buildings estimated by UCLA to support over 100,000 construction jobs and 4,900 manufacturing jobs annually for 25 years.

Given this massive growth, the construction industry is facing a high demand for skilled workers to complete projects within time and budget constraints in California. The Associated General Contractors of America (AGC) produced a report on the state of the construction workforce, surveying construction firms across California. In their 2018 report, 78% of firms reported difficulty filling hourly craft positions and 68% reported difficulty hiring salaried positions. As a result of these staffing challenges, 39% of respondents reported projects taking longer than anticipated, and 38% reported projects costing more than anticipated. More than half of firms initiated or increased

⁵ www.markle.org/rework-america/state-strategies-break-down-barriers-and-expand-access-infrastructure-careers

in-house training and base-pay rates fearing loss of hourly craft or salaried personnel to other employers, and nearly a third utilize overtime to address skilled worker shortages.

While demand for traditional skilled labor in transportation infrastructure expansion and maintenance projects continues to increase, new technologies in transportation are also fueling demand for new skills. An academic white paper published by the US Department of Transportation's ITS Joint Program Office describes how changing workforce demographics and the rapid onset of ITS technology is creating a growing demand for degree and certificate programs in electrical-based skillsets and information technologies. The report notes that stakeholders should look to expand university engineering programs and develop certificate programs in ITS and connected vehicles in order to adequately prepare for future workforce needs. ITS technicians and other electrical fields are needed to bring these technologies to infrastructure. This skilled trade is already used consistently on projects in California, but organizations looking to invest in workforce development should consider how needs for workers skilled in non-traditional construction jobs will increase.

Workforce development programs in the state have already been implemented and have started to become part of any California public infrastructure project. One such example is LA Metro's WIN-LA Career Pathways program. WIN-LA focuses on creating career pathways in the transportation industry for underrepresented populations. Another prominent program in the state is the California Energy Commission's Clean Transportation Program, which expands workforce development programs with a specific focus on the zero-emission vehicle and infrastructure sectors. The state has also targeted labor shortages through investments in trade education, particularly through California community colleges. For example, earlier this year the state allocated a \$2.9 billion grant to develop a welding training facility at Chaffey College. State funds are also allocated to such programs through the C California Workforce Development Board and the Workforce Development Initiative, which funds employment and job training programs with a specific focus on labor market gaps.

That said, while this Playbook is focused on California, the concepts can be applied in any community across the United States.

Why Workforce Development?

Workforce development is defined generally as initiatives, activities, policies, and programs to create and sustain a viable workforce.⁷ The policy behind workforce development is a unifying concept: get people into productive jobs to create and sustain a viable workforce. Workforce development programs aim to build a pipeline of skilled and ready workers to fill the anticipated labor needs of an industry, however that is not the only focus. Communities in which major infrastructure projects are built are entitled to participate in – and benefit from – those investments in their communities through family-wage jobs. Infrastructure projects can provide employment opportunities

and career pathways to underrepresented and disadvantaged populations within those communities. Workforce development programs exist to meet these needs.

Why a Gold Standard?

A Gold Standard represents the “best of” practices for workforce development that set the bar for project owners. In this case, because widespread implementation of workforce development programs is a relatively new concept, this Playbook sets the first Gold Standard for California workforce development practitioners. The Gold Standard is not stagnant, however, but rather is intended to be iterative and self-informing. As the Gold Standard is implemented, lessons learned may lead to higher standards in the future that build off completed work. The Gold Standard should be heightened as new practices are implemented, evaluated, and measured.

Why a Playbook?

A Playbook is a menu of options – strategies and tactics – that can be applied holistically or separately to achieve a desired outcome. While many aspects of workforce development are interconnected, the strategies and tactics outlined in this Playbook are not a “step-by-step” approach. They are situational and malleable, meant to be changed or modified as the situation requires.

Differing Priorities: For one organization, the best outcome for a workforce development program will be train a certain percentage of the local workforce in a specific trade. For another organization, the goal will be to retain the most trainees in a local union, or within the organization. An organization may have certain goals that require workforce targets, such as an anticipated gap in a particular skillset or a demographic goal. Further, the community may have an interest in leveraging a project to provide apprenticeship opportunities in a particular trade.

The desired outcomes of a workforce development program will vary by organization, workforce, and community. A project owner will want to align its workforce development goals with the organization’s priorities. The local community in which a project takes place will have its own goals; outreach and planning will help define those goals. This Playbook allows for customization based on the goals of each project or program.

Why focus on project owners?

Project owners are public and private entities that fund and own infrastructure projects. While this Playbook is useful for all workforce practitioners, project owners making major investments in infrastructure projects are the primary intended audience. These organizations have the unique opportunity to leverage their project investments as a means of establishing a workforce development program that becomes institutionalized within the organization, thereby outliving the project.

While workforce development programs succeed through partnerships and contributions from a variety of sources, only project owners can prioritize workforce development within the project planning process. Project owners have the ability to emphasize workforce development policies and solidify these priorities into contracts and employ tactics in a variety of functional areas, ranging from project planning to data enforcement and collection.

While project owners play an especially valuable role, coordinating a comprehensive workforce development program requires the inclusion of stakeholders including contractors, labor unions, and community-based organizations or CBOs. Figure 1 demonstrates the key partners needed to develop workforce development programs. The table below notes the definitions and common roles and responsibilities of these stakeholders in an infrastructure construction project. Project owners are reliant upon the partnerships built with these stakeholders.

Stakeholder	Roles and Responsibilities	Common Examples
Project Owner	Project owners generally sponsor and solicit the construction of infrastructure. These entities can be public or private, the defining factor being that they own and usually fund the infrastructure asset being built. Project owners plan and fund the project and solicit contractors to construct the project.	Commercial Developers, Transit Agencies, Municipalities
Construction Contractors	Construction contractors are generally procured by the project owner to construct the infrastructure asset on time and on budget. Contractors work with labor organizations, unions, and the general workforce to staff positions on their projects while generally maintaining an in-house staff to manage the overall project and interface with the project owner. Contractors are the primary hiring entity on construction projects.	Construction Companies, Engineering/Architectural Firms
Labor	Labor in this case refers to the overall workforce and stakeholders that may represent them, such as trade unions. “Labor” refers the needs and interests of the individual worker, as well as the workers themselves. Labor organizations are often responsible for working with contractors to staff the workforce needs on a project. Labor organizations negotiate with the construction contractor to determine wages, hours, and other considerations for workers on the construction project. Labor organizations often carry out the most robust training and apprenticeship programs and have the established infrastructure to put those trainees into jobs.	Trade Unions, Building Trades Councils
Community Organizations / Non-Profits	These organizations represent the communities in which projects are being built as well as the “potential worker.” Community organizations may work to put people through pre-apprenticeship programs, an integral part of building a pipeline of skilled workers. Non-profits can invest in community-based organizations and initiatives that close the gap between the potential worker and an apprenticeship program. CBO’s and Non-profits in the workforce development landscape can serve to address barriers to entry that other stakeholders may not be able to remove.	Pre-Apprenticeship Organizations, Philanthropies, Community Centers



Why aren't disadvantaged businesses included?

The Playbook's focus is not on small and disadvantaged businesses, which is a business-level approach to economic development. The disadvantaged business enterprise (DBE) program is a federal program governed by USDOT regulations under 49 CFR Part 26. The goal of the DBE program is to level the playing field and create opportunities for socially and economically

disadvantaged businesses to compete fairly for USDOT federally funded projects. All businesses, large or small can benefit from workforce development that provides a tangible, concrete plan to resolve the workforce shortage in the industry.



Workforce Development Gold Standard Playbook

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