



**GROW
APPRENTICESHIP
CALIFORNIA**

POWERED BY THE
FOUNDATION & CALIFORNIA COMMUNITY COLLEGES



**The James Irvine
Foundation**



**HIGH
ROAD
ALLIANCE**

equitable career pathways

Building and Growing Apprenticeship with Equity in Mind

An Equitable Apprenticeships Toolkit
Workbook
September 2021



INFORMATION GATHERING TOOLS

1. Community Demographics and Skills

Category	Data Relevant to Prospective Apprentices	Sources
Race and Ethnicity		
Gender and Sexual Orientation		
Age		
Veterans Status		
Right-to-Work Documentation Status		
Justice System Involvement		
English Language Levels		
Basic Academic English Levels		
Basic Math Levels		
Digital Skills Levels		
High School Diploma/equivalency Attainment		
Prior Post-secondary Education or Training		
Disability and/or Special Education Status		
Digital Access (i.e., broadband, cell phone)		
Other:		
Other:		

REFLECTION QUESTIONS

1. Who does this data suggest may not be well-served by our existing training programs or represented in our target occupations?
2. What does this data tell us about community members' current readiness to enter our target sector or occupations, or about possible key gaps in readiness?
3. What does this data tell us about the support that might be needed for more members of our community to access apprenticeship training and enter these occupations?

2. Occupation Demographics and Skills

Target Industry:

Target Occupation(s):

Category	What is known about the current workforce in entry-level positions in this industry?	What is known about the current workforce in higher-skilled positions in this industry?	Sources
Race and Ethnicity			
Gender and Sexual Orientation			
Age			
Veterans Status			
Right-to-Work Documentation Status			
Justice System Involvement			
English Language Levels			
Basic Academic English Levels			
Basic Math Levels			
Digital Skills Levels			
High School Diploma/equivalency Attainment			

Prior Post-secondary Education or Training			
Disability and/or Special Education Status			
Digital Access (i.e., broadband, cell phone)			
Other:			
Other:			

REFLECTION QUESTIONS

1. Where are there differences between the demographics of our community and of jobs in the target industry?
2. Where are there disparities in the demographics of the entry-level and higher-skilled workforces?
3. What are the differences between the skills levels of entry-level and higher-skilled workers?
4. What equity issues could be addressed through pre-apprenticeship and apprenticeship?
5. What does the data tell us about opportunities for targeted skill development?

3. Industry Equipment Requirements

Category	Data on Employment Requirements for Target Occupation(s)	Sources
English Language*		
Math Level*		
Digital Skills*		
Industry-specific Technical Skills		
Knowledge of Target Industry/occupation		
Hands-on Work Experience in the Industry		

High School Diploma or Equivalency		
Postsecondary Degree		
Industry Certification		
Physical Ability		
No Prior Arrest or Conviction Record		
Other:		
Other:		

*Note that English, math, and digital skills levels may be determined in various ways, including academic transcripts, diplomas, standardized tests, employer-specific tests, or self-reporting.

REFLECTION QUESTIONS

1. Where are there likely to be gaps between community members' skills and experience and industry requirements for the target occupations?
2. What sorts of instruction and/or support (e.g., exam preparation support, pre-apprenticeship training) could help to address these gaps for our community?

4. Apprenticeship Training Entry Requirements

Requirement/ prerequisite	Existing Requirements (i.e., specific level, course, qualification)	How Requirements Are or Will Be Assessed (i.e., exam, interview, transcript)	Source
Course Prerequisites			
Minimum English Level			
Minimum Math Level			
Digital Skills			
Technical Skills or Experience			
Physical Ability			
Other			

REFLECTION QUESTIONS

- What barriers to entering and succeeding in this pre-apprenticeship or apprenticeship training are our community members likely to face?

For apprenticeship programs (new or existing):

- Do entrance requirements strike the right balance between defining minimum qualifications (based upon what is necessary for success in training and on the job) and not excluding certain populations?
- Are there entrance requirements that should be adjusted to facilitate more equitable access among diverse community members?

For existing pre-apprenticeship programs:

- How well does the pre-apprenticeship address the skills required for success in target apprenticeship(s) to provide access to communities or populations that have been excluded from such opportunities? What might need to be added or adjusted?

For pre-apprenticeship programs in development:

- Given what we know from Tool #1 and this Tool, what instruction and support mechanisms need to be included in the pre-apprenticeship to facilitate equitable access to target apprenticeship(s)?

5. Potential Apprentices' Goals, Interests, and Challenges

Information	Response
Level of interest in the target occupation(s)	
Level of interest in training in the target occupation(s)	
Opportunities to enter the target occupation(s)	
Obstacles to entering the target occupation(s)	
Obstacles to accessing or succeeding in training for the target occupation(s)	
Possible ways to address obstacles	
Other key learnings	

REFLECTION QUESTIONS

1. Having listened to input from community members, what have you learned about the program elements, services, and resources that will facilitate access to and achievement in your apprenticeship?
2. Having analyzed what you heard from community members, what additional questions do you have?

3. Having analyzed what you heard from incumbent workers in this industry, what additional questions do you have?

6. Conditions for Equity-Focused Change

Information	Description
Employer's or Industry's Commitments to DEI	
Employer's or Industry's Informal Statements	
Government Mandates in Favor of DEI	
Local Project Labor Agreements (PLAs)	
Union Commitments to DEI	
Community Advocacy Supporting DEI	
Other:	

REFLECTION QUESTIONS

1. How deep is our community's — and our apprenticeship stakeholders' — commitment to change toward more equitable training, hiring, and apprenticeships?
2. What partners can we engage with to address apprenticeship equity goals? Are these new partners, or will we engage with existing partners more deeply toward these goals?

ACTION PLANNING TOOLS

1. Defining the Goals of Your Equitable Apprenticeship Team

Category	Description
Apprenticeship Name/Occupation	
Pre-Apprenticeship Name (if applicable)	
Essential Partners (in design and delivery)	
Key Equity-related Needs to be Addressed	
Equitable Apprenticeship Goals (3-5)	1. 2. 3. 4. 5.

2. Securing Partnerships

[illegible]

3. Making Apprenticeship Entry Accessible

OPPORTUNITIES TO ADDRESS INEQUITIES AND BARRIERS

Potential Barriers or Inequities	Opportunities to Address Inequities and Barriers
Community awareness of pre-apprenticeship and apprenticeship opportunities and entry requirements	● Targeted outreach to community members and incumbent workers who are not equitably represented among apprentices and higher-skilled occupations ● Engagement and education of counselors, case managers, teachers, community leaders, and others to promote apprenticeships in their communities
Match between entry requirements/ exams/ prerequisites and skills and attributes needed for success in training and on the entry-level job	● Elimination or adjustment of entry requirements that are unnecessarily or inequitably exclusionary ● Review of apprenticeship entry exam to address discriminatory or exclusionary elements
Accessibility of application process	● Program web pages meet standards for access by people with disabilities (see the Section 508 compliance standards and the WAVE Web accessibility tool to confirm digital accessibility of websites) ● Informational and application materials in multiple languages and in accessible/alternative formats ● Staff with bilingual ability and sensitivity to and respect for the needs and assets of diverse applicants ● Physical accessibility of in-person orientations, interviews, and exams
Options/resources for applicants who initially do not meet entry requirements	● Ongoing communications/database of interested community members ● Pre-apprenticeship referrals (see Action Planning Tool #4) ● Preparatory education referrals (basic skills, ESL, work readiness training, industry-contextualized bridge programs, community college career development certificates, etc.) ● Entrepreneurship training for individuals without right-to-work documentation ● Support services/barrier removal ● Re-application/retest process
Supports to applicants who could succeed in apprenticeship with	● Exam/applicant assessment results used to identify need for individualized supports, co-requisite education, or integrated basic skills education during apprenticeship

concurrent training or support	Supportive apprenticeship design (see Action Planning Tool #7)
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REFLECTIONS ON ACTION

1. Which of these opportunities best address the barriers and inequities we have identified?
2. Which of these opportunities will we pursue?
3. What partnerships do we need to have in place?

ACTION PLAN

Opportunities	Actions	Lead	Partners	By When

4. Designing a Pre-Apprenticeship Program

OPPORTUNITIES TO ADDRESS INEQUITIES AND BARRIERS

Potential Barriers or Inequities	Opportunities to Address Inequities and Barriers
Basic English or math skills; High school diploma or equivalent	- Contextualized basic skills education (English, ESL, science, or math courses, or a high school diploma or equivalency program) for the apprenticeship occupation(s) or industry (see Contextualized Teaching and Learning: A Faculty Primer and Insights Into Contextualized Teaching and Learning for general resources, and this Integrated GED/Transportation, Distribution & Logistics curriculum as an example) - Integrated Education and Training (IET) (see existing resources at the Penn State IET Initiative Library, the CalPRO IET video library, and LINCS IET resources) - Supplemental (co-requisite or optional) basic skills education or support, which may include basic skills courses offered to pre-apprentices; support from an in-class basic skills teacher assistant or peer assistant; individual or small group

	review or tutoring; academic mentoring; or use of an independent basic skills learning platform, such as Cell-Ed or Voxy
English communication ability	● Classroom instructors trained to support English learners during instruction (see Limited English Proficiency Students: A Guide for Ironwork Instructors) ● Classroom instruction in students' first language or bilingual (see Milwaukee Area Technical College bilingual barber apprenticeship and Growing Opportunities in America for Latinos (GOAL)) ● First language or bilingual teaching materials ● Bilingual mentors or coaches ● Supplemental English language instruction, in-class or through online platforms (such as Cell-Ed or Voxy)
Work readiness, communication, or leadership skills	● Integrated soft skills training, including industry and/or occupation specific soft skills training (see California Community Colleges' Hi-Touch Health Care: The Critical Six Soft Skills) ● Supplemental work readiness workshops (see Habits of Work curriculum developed for students with disabilities) ● Individual work readiness counseling
Digital skills and access	● Facilitated internet and/or device access (see EveryoneOn) ● Integrated digital skills instruction (see Foundational Digital Skills for Career Progress and LINCS Integrating Digital Literacy into English Language Instruction) ● Digital learning orientation (see IDEAL Distance Education and Blended Learning Handbook, Chapter 4) ● Digital resource navigation assistance (see DigitalUS' Digital Navigator service model and related toolkit) ● Mobile-friendly online instruction (see IDEAL Handbook, Chapter 5)
Industry, career, or apprenticeship awareness	● Integrated industry/career awareness instruction (See Unlocking Career Potential: An Analysis of the Career Navigation and Guidance Landscape) ● Hands-on work-based learning, job shadowing, or job simulation ● Networking opportunities with employer and industry representatives ● Industry and career fairs ● Overview of local apprenticeship opportunities, requirements, and application procedures
Apprenticeship exam and/or interview readiness	● Exam and interview preparation assistance (see tips offered by the Electrical IBEW Aptitude Test)

	● Exam preparation classes (see Oakland Adult and Career Education's Math Test Preparation for the Trades course outline) ● Mock interviews
Ability or condition	● Accommodations for individuals with disabilities (see the Partnership on Inclusive Apprenticeship resource library) ● Instruction following Universal Design for Learning (UDL) guidelines ● OJT design that is disability-inclusive (see Inclusion@Work: A Framework for Building a Disability-Inclusive Organization, from Employer Assistance and Resource Network on Disability Inclusion (EARN) for resources for employers and work sites) ● Integrated self-advocacy training for individuals with disabilities (see Explore Work Self-Advocacy Training) ● Multiple means of assessing apprenticeship readiness or prior learning (see IMTfolio assessment of IMT apprenticeship readiness) ● Physical conditioning/boot camp
Income	● No-cost courses and textbooks ● Accelerated courses to minimize time of unemployment ● Flexible scheduling to accommodate work during pre-apprenticeship ● Stipends for training participation (possibly provided by WIOA Title I funds or community college work experience) ● Pre-apprenticeship hours grant advance training hours to a new apprentice, accelerating advancement to higher apprenticeship wages
Inclusion and respect, especially in industries and occupations traditionally lacking diversity	● Instruction to foster a sense of belonging (see Equity in Youth Apprenticeship Programs, pages 20-24) ● Instruction in worker confidence-building and resilience (see Chicago Women in Trades You Can Do It guide) ● Instruction in learner confidence-building and developing a positive learner identity ● Classroom instructor selection and professional development to support respect and inclusion ● Mentoring and role models

REFLECTIONS ON ACTION

1. Which of these opportunities best address the barriers and inequities we have identified?
2. Which of these opportunities will we pursue?
3. What partnerships do we need to have in place?

ACTION PLAN

Opportunities	Actions	Lead	Partners	By When

5. Removing Barriers and Supporting Transition to Apprenticeship

Potential Barriers or Inequities	Opportunities to Address Inequities and Barriers
Existing career training or services' linkage to apprenticeship	- Registered pre-apprenticeship with formal linkage agreement (see the California Labor Code definition of registered pre-apprenticeship connection to apprenticeship) - Engagement of existing training programs other than pre-apprenticeship that could link students to apprenticeship
Awareness of apprenticeship opportunity	Direct support and advocacy (by instructors, counselors, union, etc.) to connect individuals to apprenticeship
Pre-apprenticeship completers' entry into apprenticeship	- Priority credit and/or advanced standing for pre-apprenticeship completers (see sample linkage agreement) - Credit for prior learning attained in addition to pre-apprenticeship (see general Credit for Prior Learning resources) - Employer commitment to interview pre-apprenticeship completers for consideration for apprenticeship
Readiness for college-level apprenticeship instruction	- First-year apprenticeship content integrated into pre-apprenticeship in a supported or decelerated format - Pre-apprenticeship training offered in a decelerated or self-paced format
Options for individuals who don't score highly on or pass	- Referrals to basic skills instruction - Referrals to pre-apprenticeship

apprenticeship entry exam or interview	● Exam/applicant assessment results used to identify need for individualized supports, co-requisite education, or integrated basic skills education during apprenticeship ● Supportive apprenticeship design (see Action Planning Tool #7)
Resources to actively address barriers to entry	● Wraparound support ● Education and career navigation counseling ● Partnerships to address specific barriers re: transportation, childcare, criminal records, language access, health care access, food, housing (see Action Planning Tools #2 and #7)

REFLECTIONS ON ACTION

1. Which of these opportunities best address the barriers and inequities we have identified?
2. Which of these opportunities will we pursue?
3. What partnerships will we need to have in place?

ACTION PLAN

Opportunities	Actions	Lead	Partners	By When

6. Making Apprenticeship Classroom and On-the-Job Training Accessible

OPPORTUNITIES TO ADDRESS INEQUITIES AND BARRIERS

Potential Barriers or Inequities	Opportunities to Address Inequities and Barriers
Basic English or math skills; High school diploma or equivalent	● Contextualized basic skills education (English, ESL, or math courses, or a high school diploma or equivalency program) for the apprenticeship occupation(s) or industry (see Contextualized Teaching and Learning: A Faculty Primer and

	Insights Into Contextualized Teaching and Learning for general resources, and this Integrated GED/Transportation, Distribution & Logistics curriculum as an example) ● Integrated Education and Training (IET) (see existing resources at the Penn State IET Initiative Library, the CalPRO IET video library, and LINCS IET resources) ● Supplemental (co-requisite or optional) basic skills education or support, which may include basic skills instruction either <i>included in</i> or <i>in addition to</i> RSI hours; support from an in-class basic skills teacher assistant or peer assistant; individual or small group review or tutoring; academic mentoring; or use of an independent basic skills learning platform, such as Cell-Ed or Voxy ● Competency-based apprenticeship model used to facilitate demonstration of skills and abilities acquired on the job, rather than requiring these be demonstrated as a condition for hire ● On-the-job training that reinforces basic skills instruction, achieved through supervisor/mentor training and coordination with classroom instruction
English communication ability	● Classroom instructors trained to support English learners during instruction (see Limited English Proficiency Students: A Guide for Ironwork Instructors) ● Classroom instruction in students' first language or bilingual (see Milwaukee Area Technical College bilingual barber apprenticeship and Growing Opportunities in America for Latinos (GOAL)) ● First language or bilingual teaching materials ● Bilingual supervisors or mentors (or minimal bilingual training for English-speaking supervisors or mentors) ● Supplemental English language instruction, in-class or through online platforms (such as Cell-Ed or Voxy)
Work readiness, communication, or leadership skills	● Integrated soft skills training, including industry and/or occupation specific soft skills training (see California Community Colleges' Hi-Touch Health Care: The Critical Six Soft Skills) ● Supplemental work readiness workshops (see Habits of Work curriculum developed for students with disabilities) ● Individual work readiness counseling
Digital skills and access	● Facilitated internet and/or device access (see EveryoneOn) ● Integrated digital skills instruction (see Foundational Digital Skills for Career Progress and LINCS Integrating Digital Literacy into English Language Instruction) ● Digital learning orientation (see IDEAL Distance Education and Blended Learning Handbook, Chapter 4) ● Digital resource navigation assistance (see DigitalUS' Digital Navigator service model and related toolkit)

	● Mobile-friendly online instruction (see IDEAL Handbook, Chapter 5)
Ability or condition	● Accommodations for individuals with disabilities (see the Partnership on Inclusive Apprenticeship resource library) ● Instruction following Universal Design for Learning (UDL) guidelines ● OJT design that is disability-inclusive (see Inclusion@Work: A Framework for Building a Disability-Inclusive Organization, from Employer Assistance and Resource Network on Disability Inclusion (EARN) for resources for employers and work sites) ● Integrated self-advocacy training (see Explore Work Self-Advocacy Training) ● Multiple means of assessing apprenticeship readiness or prior learning (see IMTfolio assessment of IMT apprenticeship readiness) ● Physical conditioning/boot camp
Income	● Paid time in classroom training (possibly provided by WIOA Title I funds or community college work experience) ● No-cost courses and textbooks ● Accelerated classroom instruction, and classroom instruction offered concurrently with OJT to minimize time of unemployment
Inclusion and respect, especially in industries and occupations traditionally lacking diversity	● Instruction to foster a sense of belonging (see Equity in Youth Apprenticeship Programs, pages 20-24) ● Instruction in worker confidence-building and resilience (see Chicago Women in Trades You Can Do It guide) ● Instruction in learner confidence-building and developing a positive learner identity ● Classroom instructor selection and professional development to support respect and inclusion ● OJT supervisor and mentor training to support respect and inclusion (see the Job Accommodation Network's resources on Disability Etiquette at the workplace)

REFLECTIONS ON ACTION

1. Which of these opportunities best address the barriers and inequities we have identified?
2. Which of these opportunities will we pursue?
3. What partnerships will we need to have in place?

ACTION PLAN

Opportunities	Actions	Lead	Partners	By When
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7. Providing Support During Pre-Apprenticeship and Apprenticeship Training

OPPORTUNITIES TO ADDRESS INEQUITIES AND BARRIERS

Potential Barriers or Inequities	Opportunities to Address Inequities and Barriers
Persistence and retention in training	● Case management, including WIOA-funded employment counseling, community-based organization services, and other forms of individual support ● Mentoring and wraparound services during training (see this rigorous study of mentoring of women apprentices in the trades now underway)
English language ability	● Use of first languages in support services, such as through bilingual counseling or mentoring, or by providing bilingual informational materials
Childcare and transportation	● WIOA Supportive Services and Follow-up Services ● Driver's license assistance ● Transportation assistance ● Childcare assistance
Criminal record	● Records expungement (see this general information on California records)
Disability	● Disabled Student Programs and Services (DSPS) offices of community colleges ● Industry-specific accessibility resources, such as those offered by AgrAbility
Other personal and basic needs	● Public benefits access ● Income support

	● Financial literacy education and coaching ● Food and housing support ● Physical and mental health care access ● Legal services, including assistance with right-to-work documentation ● Funding allocation flexibility to permit use of apprenticeship funds for apprentices' out-of-pocket costs, such as transportation, childcare or housing (see this proposal for the Pre-Apprenticeship Wrap-around Support Services Fund Act of 2021)
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REFLECTIONS ON ACTION

1. Which of these opportunities best address the barriers and inequities we have identified?
2. Which of these opportunities will we pursue?
3. What partnerships will we need to have in place?

ACTION PLAN

Opportunities	Actions	Lead	Partners	By When

8. Keeping Equity Front and Center

PROGRAM AND SERVICE DESIGN (AND INFORMATION GATHERING)

On-Going Action	Team Checkpoints (Month or Quarter)	Success Metrics

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ACCESS AND RECRUITMENT

On-Going Action	Team Checkpoints (Month or Quarter)	Success Metrics

PRE-APPRENTICESHIP

On-Going Action	Team Checkpoints (Month or Quarter)	Success Metrics

TRANSITION TO APPRENTICESHIP

On-Going Action	Team Checkpoints (Month or Quarter)	Success Metrics

ACCESSIBLE APPRENTICESHIP

On-Going Action	Team Checkpoints (Month or Quarter)	Success Metrics

