



**Performance Partnership Pilot for
Disconnected Youth Phoenix
Manufacturing Apprenticeship Program
(P3 MAP) Implementation Evaluation
Report**

July 2019



LeCroy & Milligan
ASSOCIATES, INC.

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I. Introduction

A. Introduction and Study Overview

The Maricopa County Education Services Agency (MCESA) provides training and support the 58 school districts in Maricopa County, Arizona. MCESA served as the lead agency in the collaborative that submitted the Performance Partnership Pilot for Disconnected Youth Phoenix Manufacturing Apprenticeship Program (P3 MAP) proposal in July 2016. Other members of the collaborative included Opportunities for Youth (OFY), Arizona Manufacturing Partnership (AMP), Maricopa County Workforce Genesis Department, Hope College and Career Readiness (HCCRA), Arizona Apprenticeship Office, TCI Solutions, and CSMlearn.

The P3 MAP collaborative came together to address the needs of opportunity youth in the metropolitan Phoenix area. A 2012 report of the Measures of America of the Social Science Research Council identified the greater Phoenix areas as having the highest rate of opportunity youth of the 25 largest metro areas in the United States (Burd-Sharps & Lewis, 2012). Estimates from 2015 put the number of youths across the Phoenix metropolitan area who were not working or in school at 92,000 (Manning, Hunting, & Gupta, 2015). Research projected an economic loss to Phoenix of \$34.5 billion for the 2012 cohort of opportunity youth over its lifetime, based on factors such as lost earnings, increased criminal activity, lower productivity, poor health, and greater reliance on government programs (Belfield, 2014).

While the greater Phoenix area was experiencing a large number of opportunity youth, AMP identified a parallel challenge in an impending lack of skilled workers due to an industry skills gap and the retirement of older workers. AMP began reaching out to educational institutions and youth-serving organizations to spread awareness of the needs of the manufacturing industry. With the impetus of such dual challenges, OFY organized the P3 MAP collaborative to implement manufacturing and life skills training for opportunity youth and help those youth find employment with manufacturers in greater Phoenix.

The proposal's developer and convener of the P3 MAP collaborative passed away after the submission of the proposal and awarding of the grant. After a 6-month hiatus, Arizona State University (ASU) took on the role of Pilot Lead. ASU developed a revised scope of work, which was finalized with the U.S. Department of Education in June 2018. Collaborative members identified in the original proposal that remained in the revised scope of work included OFY, HCCRA, AMP, TCI Solutions, and Maricopa County Human Services Department of Workforce Development. The new scope of work further identified GateWay Community College as the educational institution that would deliver the manufacturing training, City of Phoenix-contracted Workforce Innovation and Opportunity Act (WIOA) service providers as assisting in recruiting WIOA-enrolled youth, and LeCroy & Milligan Associates as the evaluator. The key components of P3 MAP described in the revised scope of work cover the major elements of the



program’s design included in the original proposal – approximately four months of training in manufacturing and soft skills followed by extended assistance in finding employment in manufacturing. Only one of the waivers in the original proposal was included in the revised scope of work. This waiver of Title 1, Part A of the Elementary and Secondary Education Act (ESEA) waived the limitation on serving individuals older than age 21.

P3 MAP clearly fits within the P3 Grant program desire to fund programs that test “innovative, cost-effective, and outcome-focused strategies for improving results for disconnected youth” (youth.gov, n.d.). Through blending and braiding of funds, the program was able to recruit and train youth from across Maricopa County in manufacturing and provide them with assistance in moving into a manufacturing career.

B. Primary Research Questions

The evaluation has a number of primary research questions designed to obtain information about both participants’ experiences with the program and partners’ perspectives on how the program was implemented and the functioning of the collaboration (Exhibit 1).

Exhibit 1. P3 MAP Primary Research Questions

Question	Question Type	Aspect of Implementation	Time Point(s) of Focus
What is the demand / need for P3 MAP education and or training services for young adults in this region of Maricopa County?	Primary	Need for manufacturing training for opportunity youth	At development of proposal and throughout implementation
How well does P3 MAP fits with the priorities of the implementing site; broader community values, including the values of culturally and linguistically specific populations; and other existing initiatives / partnerships?	Primary	Appropriate populations targeted in culturally sensitive way. Program a good fit for collaboration.	At development of proposal and throughout implementation
What strategies were used to find eligible and interested youth?	Primary	Recruitment and outreach	Continuous after transfer of program coordination to ASU
What are the experiences of staff and youth in recruitment and outreach?	Primary	Recruitment and outreach	Continuous after transfer of program coordination to ASU
How are the outreach activities implemented to identify and engage the interest of young adults?	Primary	Recruitment and outreach	Continuous after transfer of program coordination to ASU
How do P3 MAP staff reach the target population?	Primary	Recruitment and outreach	Continuous after transfer of program coordination to ASU
What are the characteristics of young adults enrolled in MAP?	Primary	Targeted populations reached	With recruitment of each cohort



Question	Question Type	Aspect of Implementation	Time Point(s) of Focus
How are the engagement activities implemented to enroll and maintain young adults in MAP services?	Primary	Engagement and retention	Continuous from recruitment of Cohort 1
How are the education and employment services implemented to serve the learning and employment needs of MAP participants?	Primary	Case management and participant success	Continuous after recruitment of Cohort 1
How are enrolled youth progressing on the WIOA program outcomes?	Primary	Case management and participant success	Continuous after completion by each cohort
How satisfied are MAP participants with the supports and services they receive?	Primary	Participant satisfaction	With completion by each cohort
Are there comprehensive resources available from experts to support implementation, including resources for building the competency of staff and organizational practice?	Primary	Skill and capacity building	Continuous after transfer of program coordination to ASU
Does P3 MAP have operationalized principles and values, core components that are measurable and observable, and a validated fidelity assessment; are modifiable components identified to support contextualization for new settings or populations?	Primary	Program evaluation	At beginning and end of program implementation
Does P3 MAP have a qualified workforce and all of the financial supports, technology supports, and administrative supports required to implement and sustain MAP with integrity?	Primary	Program resources	Continuous after transfer of program coordination to ASU
What implementation drivers are most influential in how the P3 MAP project is implemented?	Primary	Program evaluation	At end of program implementation

C. Secondary Research Questions

The program's secondary research questions (Exhibit 2) grow out of the circumstances under which the program was developed and implemented. The original funding proposal was submitted in July 2016 but soon after the proposal was submitted and awarded, the program coordinator passed away. The program remained in limbo for a period of approximately six months while the partners made new arrangements for oversight and implementation. Suffice it to say, there have been a number of significant changes to implementation in this project as project staff have worked diligently in their service to opportunity youth. The secondary research questions listed below reflect the need for the evaluation to acknowledge the transitions to implementation over the project period.



Exhibit 2. P3 MAP Secondary Research Questions

Question	Question Type	Aspect of Implementation	Time Point(s) of Focus
How did the program and collaboration in it change from the original funded proposal to the revised scope of work under ASU leadership?	Secondary	Program design Collaboration	Retrospective examination of pre-launch, launch under new lead, and over course of implementation
Did all partners fulfill their commitments to the program included in the revised scope of work?	Secondary	Collaboration	Retrospective examination launch under new lead and over course of implementation



II. Description of Program

A. Description of Program

Participation Criteria

The program's target population is opportunity youth, individuals 17-24 years of age who are neither working nor in school. Youth also must qualify under WIOA criteria (Exhibit 3).

Exhibit 3. WIOA Criteria for Out-of-School Youth

Criteria

Not attending any school* (as defined under Arizona law)

Between 16 and 24 years old at the time of enrollment and one or more of the following:

- A school dropout, including a youth who is not attending an alternative school at the time of enrollment;
- A low-income individual with a secondary school diploma or its recognized equivalent and:
 - Basic skills deficient; or
 - An English language learner;
- Subject to the juvenile or adult justice system;
- Homeless, i.e. lacks a fixed, regular and adequate nighttime residence;
- A runaway;
- In foster care, has aged out of foster care, or has left foster care for kinship, guardianship or adoption;
- A youth who has been removed from his/her home and is in an out-of-home placement;
- Pregnant or parenting;
- An individual with a disability; or
- A low-income individual in need of additional assistance to enter or complete an education program or to secure or hold employment, as defined by the LWDA.

* Adult Education, Job Corps, and YouthBuild are not considered school under the WIOA criteria.

The P3 MAP Program has several components to ensure youth who participate successfully complete the manufacturing training and are able to move on to higher level training or employment in a manufacturing setting.

Program Trainings

The central component of P3 MAP is a CNC Mill Operator training to youth participants at GateWay Community College's Central City Campus in Phoenix. Two instructors taught the course, one of whom developed its curriculum. The course developer used skill standards developed by the National Institute for Metalworking Skills (NIMS) as a guide for the curriculum, aligning the training with NIMS-identified competencies. The course curriculum describes the course as an introduction to CNC milling operations covering topics that include geometric dimensioning and tolerance, inspection, tooling, machining practices, and applied mathematics. The course's curriculum handout states that the training "emphasizes critical thinking and problem solving through hands-on experience and practical applications," and lists 11 course competencies participants gain (Appendix D). Youth who completed the P3 MAP training also obtain the NIMS CNC Mill Operator Level 1 certification.



Along with manufacturing training, the program also provided to participating youth the Legacy I³ life skills training developed by TCI Solutions. The training’s curriculum addresses character development, financial literacy, personal health and wellness, college and career readiness, and workplace/employability skills readiness (Appendix D).

For a recent cohort of youth, the P3 MAP training was delivered over 14 weeks, on Mondays and Wednesdays. The manufacturing component was taught from 3-7 p.m. each day. The life skills component was taught from 11:30 a.m.-2:30 p.m. As the life skills training curriculum is shorter than the manufacturing curriculum and also offers information that is immediately applicable to the challenges of their studies and life in general, it was frontloaded into the first eight weeks of the program, was not taught for several weeks, and then returned during the course’s final two weeks. As of this time, two cohorts of youth have completed the course, and a third and larger cohort of youths is currently being trained (Exhibit 4).

Exhibit 4. P3 MAP Program Cohorts

Cohort	Number of Participants	Start and End Date
Cohort 1	5*	September 10 -December 28, 2018
Cohort 2	7	April 15 – July 25, 2019
Cohort 3	13	July 16 – October 17, 2019
Cohort 4*	20	August 5 – November 13, 2019

*One Cohort 1 participant did not complete the training. **As of this date, 15 youth have enrolled in Cohort 4. Given the demand among students for this course, GateWay has extended its previous cap of 16 students to 20 students for Cohort 4.

Program demographics show that across cohorts participants in P3 MAP are predominantly male, with about 28% (n=11) being individuals with disabilities and 20% (n=8) coming from the foster care system (Exhibit 5).



Exhibit 5. Participant Demographics

		Cohort 1	Cohort 2	Cohort 3	Cohort 4	Total
Gender	Male	5	7	11	13	36
	Female	0	0	2	2	4
	Other	0	0	0	0	0
	Unknown	0	0	0	0	0
Race and Ethnicity	American Indian or Alaska Native	0	0	0	1	1
	Asian	0	0	0	0	0
	Black or African American	0	3	4	7	14
	Native Hawaiian or other Pacific Islander	0	0	0	0	0
	White	3	1	7	5	16
	Hispanic/Latino	4	1	2	4	11
	Unknown	2	3	3	1	9
Age	14 -15	0	0	0	0	0
	16 - 17	0	1	2	1	4
	18 - 24	5	6	11	14	36
Special Populations	Expectant or Parenting	1	1	1	2	5
	Experiencing Homelessness	1	0	1	2	4
	Justice Involved	0	0	2	2	4
	Foster Care Involved	0	0	1	7	8
	Individual with a Disability	0	1	5	5	11
	English Language Learner (ELL)	0	0	1	1	2

Demographic data are currently only available for 40 youths because enrollment for Cohort 4 has not been completed.

Adaptations and Modifications to the Program

Substantial changes in the program leadership and participating community partners occurred from the time of the submission of the program’s application to its implementation ultimately under the leadership of Arizona State University. The program originally planned to use a three-phase implementation model. During the Preparation Phase, youth were to start by taking a one-week online training developed by CSMlearn designed to enhance resiliency and problem-solving abilities as well as increase math and reading skills. In Weeks 2-9 of the phase, youth were to complete a soft skills and character development curriculum. The final four weeks of the Preparation Phase were the in-classroom manufacturing training. The next 11 weeks of the program, the Bridging Phase, had youth doing in-class manufacturing training part-time, and working in a manufacturer setting part time. The third program phase, Retention, included provision of coaching and job navigation assistance to youth and the employers at which they have been getting work experience, followed by 12 additional months of coaching and employment assistance for youth. Youth were to begin manufacturing job interviews in Week 25.



The program as it was implemented includes only some of the training described, and the manner and length of delivery was also different. The program as implemented no longer included the CSMlearn online problem-solving, math, and reading training. The manufacturing and soft skills trainings were delivered concurrently, rather than the soft skill training coming first. The number of weeks for each training is also different than originally planned, although the proposal doesn't specify how many days a week each would involve. The program originally planned to implement two cohorts a year, one in the fall and a second in the spring, but instead the start of a cohort has been as soon as a minimal threshold number of youths has been enrolled. The pedagogical approach utilized in the classroom evolved based on instructors' experience during Cohort 1. Instructors began to place more emphasis on hands-on learning in response to some youth's challenges with reading the course textbook.

As implemented, the program did not involve youth doing part-time paid work in manufacturing while they received their in-classroom training. However, assistance was given to youth interested in arranging a Workforce Experience (WEX), a paid 200- or 400-hour activity under WIOA designed to give youth experience in a field of interest.

The program also diverged from its original plan by not having a formalized process for helping youth arrange job interviews upon completion of the training, although an employer fair was conducted on July 22 with three local manufacturing employers, at which Cohort 2 youth had an opportunity to find a position.

The changes in implementing the program described thus far are closely related to the loss of some community partners and modified roles of partners that remained, which will be described in depth in the Findings section. Changes of note were the switching of program leadership from MCESA to ASU, and the dropping off of CSMlearn, Hope College and Career Readiness Academy, and AMP. Some partners' program roles and staffing and roles also changed. TCI Solutions relocated to another state. The application for the program had TCI Solutions training case managers in delivery of the life skills. Instead, a TCI Solutions employee who remained in Arizona was contracted to deliver the life skills training directly to P3 MAP participants. The staffing of the manufacturing training also changed – instead of one instructor delivering the course as stated in the application, there were two instructors.

The logic model developed for implementation of the program under ASU leadership reflects changes from the original proposal that were incorporated into the revised Scope of Work (Exhibit 6).



Exhibit 6. P3 MAP Logic Model

Inputs	Outputs Per Cohort	Immediate Outcomes (0-6 Months)	Intermediate Outcomes (7-12 Months)	Long Term Outcomes (13 – 24 Months)
<p>Outreach and Recruitment:</p> <p>All MAP youth will receive case management during and for 12 months after MAP program completion. (Bi-weekly contacts with case managers, outreach staff).</p> <p>Case managers set and monitor individualized goals with each youth.</p> <p>Case managers and outreach staff will provide opportunities for youth to develop positive peer and career focused networks of support.</p>	<p>All MAP youth receive bi-weekly contacts with case managers. During MAP programming and for up to 12 months post MAP completion until employment / educational goals are met.</p> <p>All MAP youth receive bi-weekly contacts with case managers.</p> <p>Youth are provided opportunities to develop positive support networks.</p>	<p>Youth will exhibit education/employment persistence, as indicated by consistent attendance at program sessions and individualized goal completion with coach supports.</p> <p>Youth will begin scheduling interviews for employment with program support.</p> <p>Youth served by MAP case manager experience fewer barriers to success.</p> <p>Youth will begin scheduling interviews for employment with program support.</p>	<p>Youth will persist in continued education or retained employment as a recipient of case management.</p> <p>Youth develop and build on networks of colleagues, mentors and employers to gain and sustain employment.</p> <p>Youth served by MAP case manager experience fewer barriers to success.</p>	<p>Youth will earn certificate / degree and or persist in continued education or retained employment as a recipient of case management.</p> <p>Youth will continue to develop and build on networks of colleagues, mentors and employers to gain and sustain employment.</p> <p>Youth served by MAP case manager experience fewer barriers to success.</p> <p>Youth develop and build on networks of colleagues, mentors and employers to gain and sustain employment.</p>
<p>Education:</p> <p>4 months – 160 total clock hours:</p> <p>112 clock hours of GateWay Community College manufacturing curriculum</p> <p>48 Hours of TCI Solutions’ soft skills curriculum</p>	<p>96 youth enrolled</p> <p>96 youth attend <u>all</u> soft skills curriculum (or make-up classes)</p> <p>96 youth attend <u>all</u> manufacturing curriculum classes (or make-up classes)</p>	<p>Youth remain engaged in coursework for 4 months.</p> <p>Youth will complete MAP programming in 4 months.</p> <p>Youth enroll into educational program to completed GED/HS Diploma while in MAP, as applicable.</p>	<p>Youth seek and retain employment or additional education.</p>	<p>Youth have at least one additional certificate or course credit</p>



III. Evaluation Design

A. Study Design

The evaluation used a mixed-methods design that included key informant interviews, review of program documents and administrative records, Theory of Change program mapping, and an adaptation of the Implementation Drivers program readiness and capacity rubric. Data were collected from staff of the main organization responsible for implementing the program (Opportunities for Youth), staff at collaborating organizations and government agencies, and youth who were enrolled in or had completed the manufacturing training. Data collection with informants involved in implementing the program focused on challenges, successes, and lessons learned in outreach, recruitment, and retention of youth. The areas youth data collection focused on included how the youth learned about the program, motivation for participating, types of support needed for success, and satisfaction with the program. The following sections provide a more detailed description of each of the methods used in the evaluation.

Theory of Change Program Mapping

Theory of Change program mapping is an approach used by organizations and collaboratives to develop a visual representation of the steps through which a goal will be reached. The process requires stakeholders to clarify all preconditions required for reaching the goal, assumptions associated with each precondition, actions needed to make each precondition happen, and ways to measure achievement of the preconditions.

The evaluation team facilitated a Theory of Change program mapping session on February 14, 2019 with staff of Opportunities for Youth, staff from collaborating organizations and agencies, and one youth who had completed the manufacturing training. The session had participants develop preconditions and assumptions for a goal in four main areas: outreach/recruitment, engagement/retention, collaboration, and capacity. Participants recorded their ideas on post-its. The facilitators clarified participants ideas, as needed, and organized the post-its by themes on large pieces of paper posted on the walls. The evaluation team analyzed the ideas generated by session participants and put them into Theory of Change program maps, adding measures whenever possible. Key program staff reviewed, offered suggestions for revision, and approved final maps (Appendix B). These maps served as guides for development of interview questions and to identify what the program needs for successful implementation, which were used to develop a rating rubric adapted from the Implementation Drivers framework (see below).



Key Informant Interviews

The evaluation team developed five interview protocols for use in gathering information about implementation of the program from different perspectives: youth participating in the manufacturing training, program staff in key roles, program staff in supporting roles, staff from collaborating organizations and agencies, case managers who assist the youth but otherwise have limited involvement with the program (Exhibit 7).

Exhibit 7. Evaluation Interview Protocols

Protocol Name	Roles/Positions of Individual Interviewed with Protocol	Question Topics
P3 MAP Youth Interview Protocol	Youth who had completed or were enrolled in the manufacturing training (N=9)	How the youth learned about the program, motivation for participating, types of support needed for success, satisfaction with the program
P3 MAP Primary Partners Interview Protocol	Individuals involved at high-level program coordination at ASU/Opportunities for Youth or a community partner (N=6)	Successes, challenges, and lessons learned in outreach, recruitment, and retention of youth, effectiveness of collaboration, program fit to community values and priorities
P3 Partners with Specific Roles Interview Protocol	Individuals involved in a single, defined role such as outreach at Opportunities for Youth or a community partner (N=4)	Successes, challenges, and lessons learned in the program activity involved in, clarity of role expectations
P3 MAP Case Managers*	Case managers at City of Phoenix-contracted WIOA service providers (N=3)	Successes and challenges of working with youth and program staff, types of assistance provided to youth

*The evaluation used the P3 MAP Primary Partners Interview Protocol with the case manager at ARIZONA@WORK Maricopa County, which serves as the Maricopa County WIOA agency. This case manager has assisted the most youth and has regularly participated in bi-monthly program meetings, thereby having a greater knowledge than other case managers about the overall implementation of the program.

Review of Program Documents and Administrative Records

The program documents reviewed included meeting minute notes for meetings held from March 8, 2018 to June 27, 2019, the original program proposal, and the revised scope of work (Version 6.26.18). The evaluator reviewed these notes to clarify and confirm information provided by key informants and to identify topics needing greater clarity.

Administrative data used for the evaluation primarily consisted of outreach and recruitment data. OFY outreach staff as well as other program and community partner staff involved in outreach and recruitment entered data about their efforts into Google Docs developed by the evaluator. The Google Docs were used to track three different types of outreach and recruitment activities: social media and website posts, dedicated events (e.g., public info sessions), and contacts made to expand involvement of manufacturers and other potential community partners.



Implementation Drivers Program Capacity and Readiness Rubric

The National Implementation Research Network of the University of North Carolina at Chapel Hill has developed the Implementation Drivers framework for assessing whether a program has the capacity and infrastructure for successful implementation (National Implementation Science Network, 2015). Implementation Drivers are mechanisms and leadership strategies identified through research on implementation of evidence-based programs that influence successful implementation of a program. The framework identifies three categories of Implementation Drivers:

1. Competency Drivers – mechanisms to develop, improve and sustain one’s ability to implement an intervention as intended in order to benefit children, families and communities.
2. Organization Drivers – mechanisms to create and sustain hospitable organizational and system environments for effective services.
3. Leadership Drivers – providing the right leadership strategies for the types of leadership challenges.

The evaluation team determined that elements of the Implementation Drivers approach could be adapted to assess the program’s capacity for implementation. Program and community partner staff, as well as one youth who had participated in the program, identified preconditions for success in key areas through the Theory of Change program mapping session described above. These preconditions were adapted for development of a rubric that would best “fit” this context and that program and community partner staff used to rate program capacity.

B. Data Collection

Key informant interviews constituted the largest proportion of data collection efforts. The evaluator conducted a total of 23 interviews with program staff, community partner staff, and youth from May 30-July 9, 2019 (Exhibit 8). Interviewing was interspaced with other evaluation activities and influenced by the evaluator’s ability to contact informants and their availability. Case managers and community partner staff assisted in arranging interviews with youth, some of whom were difficult to contact. No interviewee received an incentive for their participation.

All interviews were conducted telephonically and ranged from approximately 15 minutes to two hours. The evaluator took notes during all interviews, clarifying unclear responses with follow-up questions during the interview or with an e-mail after.



Exhibit 8. Individuals Interviewed

Type of Interview	Number of Interviews	Role/Position of Interviewee
Youth	9	Youths who completed the training (2), youths enrolled in the training (7)
Primary Partner	3	ASU pilot lead, OFY Executive Director, Workforce Program Manager -Youth (MCHDS)
Partner with Specified Role	8	Outreach Coordinator, Program Coordinator*, Outreach Specialist, Youth Career Guidance Specialist, Marketing and Communication Specialist, Gateway Community College Manufacturing Instructor, Life Skills Trainer, Business Engagement Consultant
Case Manager	3	Case managers and case manager supervisor at community partner

* The interview protocol for partners with specified roles was used with the Program Coordinator because that position involved a substantial amount of logistical communication but limited responsibility in terms of overall project direction. Program Coordinator was part-time position filled by a master's degree-level student who assisted the ASU pilot lead.

The evaluation team developed Google Docs to serve as a systematic way for the program to track varied outreach and recruitment activities. These Google Docs became active on March 14, 2019. Program and community partner staff not only entered data into the tracking logs from that date but also backloaded data into them from earlier in the project year.

Data was also collected from July 12- 18, 2019 using a capacity/readiness rubric developed based on the Implementation Drivers framework.

C. Data Analysis

The evaluation analyzed the notes from the interviews, identifying important themes both within and across interviews. Analysis of the program's outreach and recruitment efforts involved reviewing outreach logs to calculate totals for the various methods used and identify changes in strategies and trends over time. Findings from the capacity/readiness rubric data are frequencies calculated from the response "ratings" for each of the rubrics precondition statements.

D. Limitations

There were several limitations to the evaluation. Until earlier in the current project year, the evaluation was designed as an outcome study based on a proposed target of 96 youth completing the manufacturing training. Given that only four youths had completed the training at that point, the evaluation team, Pilot Lead, and Mathematica Technical Assistance staff decided to shift efforts to an implementation evaluation. The evaluation team quickly revised its focus but some data collection that would have been useful at an earlier time was no longer possible. Thus, the data collected in this evaluation is mostly from one period of time well into the project year. Change over the course of the project has been, therefore, captured through the retrospective accounts of key informants and review of meeting notes.



The second notable limitation of the evaluation is that very little information is available for the youth participants. Only four of the five youth in Cohort 1 completed the training. By the time of the key informant interviews, one of the completers was no longer responding to communication from his case manager and a second completer explicitly expressed his wish not to participate in an interview. Despite the limited data from youth who completed, youth currently in the training were willing to share their views. However, almost all of these youth are extremely busy, working one or more jobs and in some cases helping raise a child while taking the manufacturing training. Therefore, while they were willing to participate in an overview, most were brief in their comments.

The small number of youths participating in the program directly correlated to some cases managers having limited experience assisting P3 MAP youth. Nevertheless, even a case manager or case manager supervisor who were serving only one youth were able to provide useful insight into the needs of opportunity youth.

Although the evaluation made an attempt to centralize records of outreach efforts in Google, it is possible that some earlier outreach efforts may not have been entered.

Finally, the capacity/readiness rubric adapted from the Implementation Drivers framework includes a large number of preconditions program staff and community partner staff identified as being important for project success. Many of these areas do not fit neatly into the domains normally associated with Implementation Drivers. Moreover, the Implementation Drivers framework's developers suggest that creating and using what we are calling a capacity/readiness rubric is most appropriate with programs that have a high degree of fidelity in implementation and that the rubric should only be completed by high level program staff who have decision-making responsibility over the rubric's identified program areas/practices. The P3 MAP did not have all program-related activities, such as outreach and enrollment, organized and implemented according to a set of agreed upon practices. Despite this, the capacity rubric allows us to see more than a year after launch how knowledgeable program staff and community partner staff view where the program is at in relation to conditions they have identified are needed for successful implementation.



IV. Study Findings

The evaluation findings are grouped in two sub-sections - one for findings from data collected from program staff and community staff and a second for those from data provided by youth participating in the program.

A. Program Staff and Community Partner Informants

Findings for program partners are based on data collected through key informant interviews with youth participants, program staff, community partner staff, meeting notes, and a capacity/readiness rubric completed by program staff and community partners. Findings from the key informant interviews with program and community partner staff are organized under sections highlighting implementation successes and challenges. These are followed by the findings from the youth informants, those from the capacity/readiness rubric, and a cumulative lesson learned section.

Implementation Successes

Recruitment

Program staff innovated new strategies for recruitment throughout implementation in response to challenges in attracting opportunity youth to the manufacturing training and increased awareness of different partners ability to take on recruitment-related tasks. Interviewees reported consistently looking for new ways that would work for recruiting youth. More than one respondent recounted that adding small examples of machined items to what was brought to outreach event was helpful in showing youth the types of interesting items modern milling produces. An outreach specialist explained how she had realized that she needed to taper her interaction with youth at outreach event based on their

I think in the outreach. We'd come back after every event - we evaluated, made changes, trying to improve. Compare where we were at last March to where we're at today.

I'd say, 'What do you like to do?' Often it was video games. 'It's a lot like coding - you put it into machines, and it makes it for you. Would you say you're detail oriented? Well in manufacturing you have to pay attention to details.'

expressed life interests or her sense of what of the program's features would most interest them (e.g., short-term commitment, stipend, ability to go on to advanced manufacturing training). In some cases, innovation was in response to the realization that another partner was unable or unwilling to take on as aspect of recruitment that required timely action. Over the last year, OFY outreach staff identified varied locations and events at which they attempted to recruit for the program. Another recruitment strategy added on over time was tours of the training

classroom at GateWay Community College. This classroom contains the large, high-tech



machinery youth will learn to use during the training. For many youths and partnering staff, this is their first opportunity to see such machinery in-person and conceptualize what modern manufacturing involves. Outreach staff and case managers identified such tours as being integral to recruiting youth. One case manager also noted that as she has become more familiar with manufacturing processes and what a CNC machinist does, she has at the same time become better able to answer youths' questions about the manufacturing industry.

I think it is hard to really know what it is about and so the tours really helped youth and staff.

Program outreach staff had to discover effective ways for communicating with youth they have encountered who may be good candidates for the program. The outreach specialist would follow-up contacts with youth by phoning or texting them within a few days. She found she often had to make multiple attempts before reaching a youth, frequently having to text or phone on weekends or in the evenings from 9:00-10:00 p.m.

Program and community partner staff also innovated ways to assist youth in the enrollment process. In one instance, ARIZONA@WORK Maricopa County brought a number of staff to a program event designed to help youth complete all WIOA enrollment processes in a single meeting. By the time of enrollment for Cohort 2, program staff had identified that the process could be time challenging for some youth due to the need to travel a distance to location with several pieces of required documentation. From that point onward, they "hand-held" youth through the enrollment process, directing them to sites that involved the least travel or would allow them to participate in a required enrollment activity sooner than that activity was scheduled at other sites. Moreover, program staff provided youth with Uber cards to pay for transportation to and from WIOA enrollment sites and the GateWay registration site.

Program success in recruitment increased June-July 2019, with the ability to schedule Cohort 3, the largest of the program, and even possibly a Cohort 4. Many of the youths for Cohort 3 came to the program from ARIZONA@WORK Maricopa County. The case manager there offered a few reasons for the increased enrollment, reporting that several youths who came to P3 MAP had encountered barriers in enrolling in other trainings. Some were denied enrollment in other occupational skills trainings because they did not pass an entry exam, or they were justice-involved. Other youth did not have a high school diploma or GED, limiting their training choices. Some youth had previous experience working in a manufacturing setting. Three youths referred to ARIZONA@WORK Maricopa County had disabilities. It appears, therefore, that there were a variety of factors that led to a late enrollment surge.

The program maintained a record of outreach activities in Google Docs developed by the evaluation. There were four such outreach logs tracking several areas of outreach: directly to youth, on-line posts and ads, community organizations, and employers. Review of the content logs demonstrates the extensive efforts the program made to recruit opportunity youth for its



manufacturing training and, to a lesser degree, employers who could assist them in obtaining employment in manufacturing. Given that these tracking logs were not in place from the beginning of the program it is certain that the numbers presented here for outreach activities of different types are undercounted.

Direct Contact with Youth

Program staff maintained a contact log that included contact information for potential program participants; how the contact information was obtained (outreach event, referral, OFY website, recruitment specialist, etc.); whether the youth learned about P3 MAP online (e.g., OFY website, Facebook, or other social media); the date the individual was contacted by program staff; and the purpose and the result of the contact, including whether additional follow up was needed. Program staff could also enter notes about lessons learned – i.e., what did or did not work well and what they would do differently in the future.

Program staff logged over 300 contacts with potential program participants. For some of the potential program participants, program staff made and logged two or more attempted and/or completed contacts. For other potential program participants, program staff only needed to make one contact, because the individual was no longer interested in the program or was ineligible based on age or other criteria. In several cases, the individual’s contact information was incorrect, and program staff were unable to make contact. For the rest of the potential program participants, program staff only logged one contact, although additional contacts might have been attempted and/or completed without being logged. Examples of recorded contact outcomes for these individuals include the following: specialist contacted youth; called youth; youth will call back later; haven’t heard back from youth; no show/no return; youth did not schedule/show up for orientation.

In addition to contacts with potential program participants, program staff also logged numerous contacts with parents who were interested in the program for their son or daughter, as well as contacts with other family members of youth who were interested in learning more about the program and whether their family member qualified. Additionally, parents and family were often listed as the source of contact information for potential program participants. Other sources of information for potential program participants included the OFY website, job fairs, and community partners.

Two outreach events are particularly worth noting. The first was held on Feb. 9, 2019 at GateWay Community College. At this recruitment event youth attendees were able to see the manufacturing equipment and visit several “stations” to get information from OFY, ARIZONA@WORK Maricopa County, TCI Solutions, and a manufacturer, Allied Tool and Die.

A larger event with different purposes was held on July 22, 2019 also at GateWay Community College. This event was billed as the MAP Speed Networking/Hiring Event. The idea of this



event was to allow youth from Cohort 2 completing the program to meet with manufacturing employers to identify possible employment opportunities. The manufacturing organizations present were Cadence Aerospace, Consolidated Commercial Container, and Pivot Manufacturing.

Prior to the event, preparation training and process review was conducted by TCI Solutions, which partners with OFY to provide soft skills training. This readiness training included review of resumes, mock interviews, and a description of event's schedule and activities. The actual event began with an overview for the employers of the OFY initiative and a brief walk-through of the program, including curriculum. Once in the room together with employers and students, employers gave a quick presentation of their organization and their products. This was followed by the round robin process whereby the employers spent five minutes interviewing each student. After the sessions, debriefs were conducted with the youths and the employers. Employers were impressed with the professionalism, politeness, and professional attire of the students. Cadence Aerospace brought 3 members of leadership to the interview and the HR Manager asked each student to send in their resumes in order to set up an interview time and shop tour. Consolidated Commercial Container's HR and Recruiting Manager agreed to contact students to get their application and arrange interviews. Pivot Manufacturing's CEO, who was present, pledged to follow up with two of the youths. OFY was also able to share with the employers that all of the members of Cohort 2 had successfully earned their NIMS credential the previous week and the employers responded very positively to this accomplishment.

Employers provided feedback that the event was successful and that next time they would like 15 minutes with each individual. Additional process steps were identified and will be incorporated for the next time. Employers were in full agreement that this event should be held again, and they committed to attending. Employers also confirmed for OFY that the Mechanical Aptitude Test (MAT) is not necessary for their hiring decision. They also identified for OFY that training on the manufacturing codes would be a differentiator and they volunteered to work with GateWay instructors to see how best to integrate that learning into the curriculum. Students were also debriefed about the event, the process from their perspective, and provided additional insights.

Additionally, OFY explained the opportunity to offer work experiences (WEX) utilizing WIOA funds for students in the program. As a result, Cadence Aerospace responded with a willingness to provide WEX for these students. OFY plans to share this information with members of Cohort 3, who began their training on July 16, 2019, and also work with employers to interview youths and identify WEX opportunities within their organization. Program leadership and instructors will also continue to support and work with each student individually to assist them with the next steps.



Online

Online outreach included several ads, one webpage, and one email blast to promote the P3 MAP program, a program event, and program application deadlines. The program purchased six online ads for general promotion purposes that ran for periods of time ranging from ten days to almost two months and, on average, reached 16,181 youth ages 17 to 24. (The number of 17- to 24-year old youth reached by each ad ranged from 583 to 34,338.) A webpage to promote a program event, the Manufacturing Program February Shop Tour, reached 17,778 youth aged 17 to 24 years, and an email blast promoting a program application deadline reached 432 youth between 17 and 24 years of age. Program staff evaluated the effectiveness of each effort and modified their online marketing strategy accordingly.

Community Organizations

Program staff logged 124 contacts with community organizations and local and state agencies. Program staff had more than one contact with some agencies or, in some cases, had a meeting with multiple people from the same agency. About one quarter of these contacts were initiated by program staff to raise community awareness of the program or to inquire about potential opportunities for recruitment. Nearly three quarters of the community organization contacts, however, were initiated by community organization or local/state agency staff to refer clients to the P3 MAP program or inquire about program eligibility criteria to determine whether any of their clients could be referred. For many of these referrals, program staff noted in the log that referred individuals did not meet program eligibility criteria, because they were over the age of 24 or were currently enrolled in school. Nevertheless, the number of referrals from community organizations and county and state agencies suggests that many outside organizations and agencies were aware of the P3 MAP program. Program staff logged contacts with 81 different organizations and agencies; for 13 contacts, the name of the organization or agency was not recorded.

Employers

As part of their employer outreach efforts, program staff met with three employers in the manufacturing industry on four different occasions between September 2018 and April 2019. The purpose of the meetings included discussing WEX opportunities, leads on manufacturing job opportunities, manufacturing apprenticeships, and job fair presentations. The P3 MAP Project Director met with the Director of the Arizona Manufacturing Partnership (AMP) to schedule a P3 MAP presentation with employers and discuss how to create referral pipelines from manufacturing employers of out-of-school youth in entry-level positions directly to the MAP program. One meeting included a tour of a manufacturing plant and an opportunity to learn how technical and computerized manufacturing operations have become. Program staff thought the meetings were successful and opened lines of communication for future contact and potential opportunities with employers.



Engagement/Retention

Team members with varied roles went to great measures to ensure youth felt supported and completed the training. The dedicated assistance of both the manufacturing instructors and the life skills instructor were cited as being a major factor in youths' succeeding in the program. Instructors often arrived early and stay late at class to give youth extra assistance in understanding course content and homework. They offered special help to youth with lower reading and math ability. Moreover, in realization of that some youth were challenged by the course's textbook, the instructors did what they could to emphasize as much as possible the hands-on learning. Other program staff also took action once it was realized that some youth were weak in reading or math. They worked to get information that showed a youth had learning disabilities from an educational institution the youth had previously attended so that he could get special services from GCC. Program staff and community partner staff also worked to get tutoring help for other youth and ensure that they kept their commitments to utilizing those services.

Having _____ and _____ as instructors. Because of how enthusiastic they are about the youth and their succeeding.

In addition to the importance of assisting youth in the manufacturing training, some informants noted the important role of the life skills training instructor. One informant felt that having the life skills training begin concurrently with the manufacturing training had important positive impact, allowing the life skills instructor to help the youth work through any personal issues youth may have had that would have deterred their success. Speaking of the life skills instructor, this informant added, "I have a feeling that if he were not there more may have dropped out."

What we learned early on with opportunity youth is just give them one caring adult. [The life skills instructor's] role is critical.

Assisting youth with their transportation needs was another successful retention strategy used. Program staff became aware that some youth without a car were experiencing transportation-related challenges. For example, one youth's commute to the GCC involved two buses and took an hour. Moreover, the youth lived in an unsafe neighborhood, making even nighttime bus travel a concern. The program provided the youth Uber cards to enable the youth to commute to and from GCC in a time-effective way that also addressed his safety issue.

The only challenge is his busy schedule. It becomes a constant balance - time to go to school, work, meet with his case manager. If he's only available in the evening after her work, we can move around hours of case management. With opportunity youth, you put too much pressure on them it will make them disengage. Meeting youth where they're at is super-important.



The quality of the case management provided by the staff at ARIZONA@WORK Maricopa County and City of Phoenix-contracted WIOA service providers was another P3 MAP success. Case managers detailed such efforts and their reports were mirrored by those of the youths. For Cohort 1, the case manager at ARIZONA@WORK Maricopa County was responsible for assisting all five youths who were enrolled in the training. It was her general practice to meet with the youths at the GCC campus once a week. Case managers at City of Tucson WIOA-contracted providers working with Cohort 2 youth have shown great understanding of what

They (project staff) let me know if he needs extra help or is not abiding. Just when he was not showing up. They'd call me to case manage him a little more in those situations. Just having a conversation. What's going on? Hearing his side. Helping him communicate with the program. Sometimes his work picked up and he had to make the money.

the youth need to succeed in the training, emphasizing a need to understand their ongoing challenges to meet their basic needs. As part of case management, they communicated with GCC to solve an enrollment issue, provided prepaid phone cards so the youth could keep in touch, and helped a youth locate a better living situation. They have met with youth in-person or by phone twice a month, even

traveling to a youth's place of work to facilitate such meetings. Moreover, they have served as champions of the youths' success, urging them on and ensuring they fulfill the training's requirements.

Program staff and community partner staff debated the pluses and minuses of providing youth the \$1,280 stipend in increments or in one sum at completion of the program. In the end, a single payment at the end was chosen. One informant felt that this had contributed to retention.

Project Management

Numerous respondents expressed a high level of satisfaction with and praise for the efforts of the program director. They pointed to her leadership as being key to moving the program forward from January 2018 when she took on the position. Informants cited her "ability to get things done," doing a "great job of organizing things," and transparently sharing information through meetings and in-between meeting communication.

Keeping us on task, moving forward, and being an advocate. Organizing and convening skills. She (program director) reached out and held people accountable. She was realistic. If they couldn't do it, 'Well, who can we reach out to?'



Collaboration

Informants expressed appreciation for the community partner staff who consistently worked hard to make the program succeed and for specific partners' involvement in the program. One informant noted that partners did whatever was needed to make a recruitment activity or enrollment go well. Another informant noted that scheduled bimonthly meetings had helped the collaborative function well. Case management staff at City of Phoenix WIOA-contracted service providers spoke highly of program staff recounted their steady attention to assisting a youth as he entered and progressed through the program. Program staff's attention was in part based on an awareness that some of the youth had challenges in meeting their basic needs, which had to be addressed for them to succeed in the training.

Once we knew who the players were, they pulled their weight, did their part.

[I got] e-mails from 3-5 people. Amazing, a whole team behind him. I really appreciated that. They did a great job of seeing he was getting help.

One informant gave great deal of credit to GCC for joining the collaborative and taking on developing the program's curriculum and training instructors to deliver it. Other partners also offered highly complementary views of staff in various GCC department who assisted program and community partner staff in enrollment and supporting youth.

GateWay stepped up to help this demographic of opportunity youth. A big A+ in that regard.

Implementation Challenges

Major Changes in Program Partners' Leadership

The death of OFY's Executive Director, the individual who developed the original P3 MAP proposal, resulted in a delay that presented myriad of challenges to implementing the program. The program's developer had forged the partnership relationships that were key to moving youth from life skills and manufacturing trainings through a short apprenticeship experience and eventually to employment. This person had also tightly crafted the proposal to include requests for flexibility and waivers for some WIOA requirement to allow the program to serve a wider range of opportunity youth and blend funds from different sources. With the death of program's developer, the program's web of knowledge, relationships, and collaborator commitments were greatly diminished. Besides the death OFY's Executive Director, other large changes also occurred for that organization. In July 2017, OFY moved from MCESA to the Arizona State University's Watts College of Public Service and Community Solutions, a change that has amplified ASU's ability to positively impact the lives of opportunity youth. That move was soon followed by new leadership at OFY.

With ASU taking leadership, the program developed a new scope of work. Although most of the partners named in the original proposal continued to be involved, the roles of the Arizona



Manufacturing Partnership (AMP) and Hope College and Career Readiness Academy (HCCRA) as described in the revised scope of work were much more limited. AMP figures prominently in original proposal as having identified the need for more people training in manufacturing as well as identified as guiding the program as to the types of manufacturing and life skills trainings needed. Under the revised scope of work, AMP is responsible only for recruiting manufacturing employers committed to interview and potentially hire qualified P3 MAP participants. AMP was involved in an employer networking event for youth on July 22, 2019. HCCRA's role in the revised scope of work was also greatly reduced (see below). These changes would be mute points were it not for the implicit assumption as P3 MAP moved forward that it had the same knowledge level and collaborator supports to accomplish the basic goals laid out in the original proposal. This proved not to be so, as the program has had to reduce its target from 610 to 96 youths completing the training.

Recruitment and Enrollment

Recruitment presented the largest challenge to the P3 MAP implementation. A major aspect of the recruitment challenge was that although the program was working under a scope of work that in its broad strokes followed the original proposal, the program was implicitly operated under the proposal's recruitment assumptions or assumptions program staff had about other collaborator's roles. Program staff assumed that ARIZONA@WORK Maricopa County would provide a steady stream of P3 MAP enrollees from its WIOA youth.

I'm not just dedicated to P3. When I go to events, I have to talk about the whole program, not just P3... They get a selection of offerings when they come into ARIZONA@WORK.

However, while ARIZONA@WORK Maricopa County shared information about P3 MAP with its case managers through e-mail blast so they might mention the training to youth, it found few who had any interest in the program. ARIZONA@WORK Maricopa County's limited success in recruiting youth may in part be a result of changes from to its funding support that occurred between the original proposal and the revised scope of work. The braiding instead of blending of funds meant that there was not a single position at ARIZONA@WORK Maricopa County that was dedicated to P3 MAP. Efforts expended for P3 MAP were split between as many as three individuals and subsumed within the other demands of their positions, and it appears that P3 MAP could only be promoted with youth in the context of the variety of WIOA occupational offerings. In this way, promotion of the program at ARIZONA@WORK Maricopa County was very different than the way it was carried out by program staff.

Another recruitment assumption that implicitly carried over from the original vision of P3 MAP was that a large number of youths would come into the program from Hope College and Career Readiness Academy (HCCRA). The institution is listed in the original proposal as a key partner for providing youth to the training while at the same time assisting them in completing high school or obtaining a GED. HCCRA continued to be involved very early in the period after



implementation began under ASU leadership but soon after then the institution went through a change in leadership and location change. No youth ended up being recruited through HCCRA.

Realizing the need for additional assistance in recruiting opportunity youth, in October 2018 the program reached out to Family Bridges USA, an organization that provides marriage and relationship education to youth in Phoenix as well as Chicago, several cities in Wisconsin, and Puerto Rico. Through discussions with program staff over a few months, Family Bridges USA developed an outreach plan that it would implement as subcontracted recruiter for P3 MAP, but in the end the organization decided not to pursue such involvement.

Beyond assumptions about where youth would be recruited from, program staff encountered challenges based on assumptions related to who had responsibility for different parts of the recruitment and enrollment processes. That is, partners had to figure out where one process ended and the other began and who was responsible for each. Initially, OFY outreach staff

It took us time to adjust and figure out our roles...How to move forward and who was going to do what. And I think that put us in positions of delay. It held us back. If I'm doing this, shouldn't that person be doing that? But they would say, 'That's not my role. We were trying to define each other's roles.

assumed that once they referred a youth to ARIZONA@WORK Maricopa County, they had completed what they were responsible for related to recruitment and enrollment. However, they found that in some cases ARIZONA@WORK Maricopa County staff did not have the substantial amount of follow-up/communication time that opportunity youth often require. In this way, the program fell out of touch with some youth who might have potentially been enrolled. Similarly,

early on implementation both program staff and ARIZONA@WORK Maricopa County realized that county staff only had limited time for recruitment/outreach for P3 MAP. To ensure youth referred to the County were enrolled, program staff began to guide them through every step along the way, directing them in ways that would decrease the number of visits required and distance traveled for enrollment. Program staff also ensured that youth had all required documentation and provided transportation assistance when needed. Some informants described the WIOA enrollment process as being cumbersome and a barrier to recruitment.

Another challenge faced in recruitment and outreach was that initially efforts were unfocused and not appropriately staffed. A comprehensive outreach plan with performance measures and was never developed. Outreach was a developmental activity, with staff learning by trying out numerous strategies and moving on to others when they did not produce

We didn't have a complete understanding of what the mill and lathes were so didn't know how to sell it to youth. What helped me was doing a tour of the training room with [an instructor] while leaving an event.



results. Related these issues, an informant noted that an overarching recruitment challenge was a lack of ability to operationalize outreach efforts, of determining the small steps needed to achieve larger goals.

Recruitment was also challenged initially by limited staff understanding of manufacturing, making it difficult to craft appropriate messaging and outreach approaches for youth. It also appears that there was substantial turnover in the program outreach staff over the course of implementation, with implications for how knowledge and experience were built on through adaptations made to outreach and recruitment strategies. A series of mostly part-time staff conducted outreach and recruitment. One of those individuals had limitations in terms of when they were available for outreach activities (i.e., educational commitments) or where they could conduct them. It appears that recruitment efforts were not fully realized until the program hired outreach specialist, who worked approximately 30 hours a week. Several informants spoke of her drive, innovative recruitment messaging and use of manufactured metal pieces as props, and effective follow-up strategies.

Outreach staff also faced a major challenge in opportunity youth's disinterest in manufacturing. Program and community partner staff at all levels reported that from their experience, some from outreach and case management for the program, youth have no interest in manufacturing. Some questioned how manufacturing had originally been chosen.

Manufacturing is not a course most youth want to do as a career. So it's very hard to sell it... At first it sounds interesting but then they decide to go into another - IT, electrician, plumbing. They didn't come in wanting to do manufacturing.

I think it's a knowledge thing. I think it's the old stigma of machining lingering. Of a dirty, oily, old guy in a dungeon. I'd like to see it more of a career thing for women to get into.

Youth disinterest in manufacturing may in part be due to a lack of understanding of what modern manufacturing entails. An outreach specialist and instructor both commented that youth, and particularly young women, do not have an accurate picture of manufacturing.

Authority and Accountability

Effective program management was challenged by the conflicting needs for a reconstituted and full complement of staff, an effective P3 MAP collaborative to make the program work after a long dormant period, and the limited authority vested in the individual responsible for doing so. Because the collaboration needed the strong support of all partners to move forward, and with a working relationship just forming, the project leadership felt constrained about holding partners fully accountable for their contributions. Moreover, the individual who served as project manager was not in a high enough position of authority to push on such matters across organizational and government boundaries.



Engagement/Retention

A major challenge for retaining youth was that some had lower level reading or math skills. Reading at a lower level made it difficult for youth to read the training texts, requiring

We ran into challenges...with basic math. I reached out to [program staff]. They reached out to the tutoring program at GateWay. I think we could do better by catching that up front.

assistance during and sometimes before or after class from an instructor as well as difficulties with homework. The instructors reported these issues to program staff and worked closely with them and sometimes their case managers to secure tutoring and other supports for youth who needed them. In at least one case this involved securing a youth's Individualized Education Program from a public school district, which would show GCC that were eligible for special education assistance. Two informants noted the importance of case managers identifying special needs at the time of enrollment.

Additional information regarding youths' ability to complete program activities such as homework was included in the Mid-course Student Evaluation and Progress Report completed by instructors. This report gave the program rating information about youth's status in numerous areas under three major domains: commitment, attitude, and academics.

A second retention challenge was broader, being related to the challenges many opportunity youth face in meeting their basic needs. Most of the program participants were working, some having two jobs, yet meeting immediate financial needs remained a concern. Some needed assistance with transportation, phone service, or housing. In one case a youth had missed a tutoring appointment due to the need to work extra hours and failed to communicate that to the tutor because his phone service had run out.

The only challenge is his busy schedule. It becomes a constant balance - time to go to school, work, meet with his case manager. If he's only available in the evening after her work, we can move around hours of case management. With opportunity youth, you put too much pressure on them it will make them disengage

Collaboration

The greatest challenge in collaboration centered around recruitment: lack of role clarity for specific activities and assumptions and frustration about the sources of enrollees, as described above. Recruitment challenges led to shifting levels of enthusiasm for the program, both within partners and across the collaborative, which proved to a major factor why some partners chose not to support an attempt to extend the program period. Changes in levels of enthusiasm roughly

It was difficult to keep enthusiasm up. Hard work continued but great results create a sense of accomplishment.



followed an upward curve to when a cohort was started, starting lower again with recruitment for the next cohort.

P3 MAP had limited involvement of and support from manufactures and manufacturing associations, and the program was only able to reach out for assistance from manufacturing during part of the implementation period. One manufacturing employer was present at a February 9, 2019 program information event held at GCC. The program did not have a staff person dedicated to employer engagement from August 2018 through April 2019. Given that only four youth had completed the program as of June 2019, lack of employer involvement was probably not an issue in terms of finding employment for those who completed the training. In fact, two of the Cohort 1 youths decided to continue on with an advanced manufacturing course at GCC rather than seek employment at the end of the training. However, given the program's recruitment challenges, greater manufacturer involvement in outreach may have been beneficial. For example, manufacturing associations and manufacturing companies could have promoted the program through their networks of contacts or offered potential recruits a tour of a "real" manufacturing facility, introducing them to people earning a good living from manufacturing.

Appropriateness for Population

Several issues were mentioned by informants that are cogent to the issue of whether the program fits with the priorities of the broader community values, including the values of culturally and linguistically specific populations. If we consider opportunity youth to be a culturally specific population, it would appear that they are not interested in manufacturing, at least not the image that the program's outreach staff was able to present. As noted above, this presented a major challenge to recruitment. It is not clear whether sufficient efforts were made to promote the program to the Latinx community. A program flyer was only translated into Spanish at the request of a parent. Notes from a July 25 meeting of the program staff and community partners includes a mention that the OFY outreach team would be developing strategies to better market the program to women and minority populations, and that an outreach staff member had already reached out to Lutheran Social Services of the Southwest Refugee and Immigration Services to work with them in recruiting refugee youths.

It is also not clear whether the program was a good fit with other existing initiatives and partnerships working to get youth into manufacturing. It was not possible to strongly engage manufacturing organization and government-sponsored employment and apprenticeship initiatives in the program's efforts.



An informant noted her efforts to recruit young women and some of the gendered cultural challenges to getting them to pursue a career in manufacturing. As of Cohort 3, which is the

With the new cohort, I'm hoping to have at least one young woman in it. They wouldn't know - that it's not heavy physical work, not hot, dirty...I had to stress - it's cool in there. It's not dirty

last cohort with youth who have participated in at least part of the training, one female had participated in P3 MAP. WIOA data for Q2 show that just under 41% of the youth they serve are female, with most of them being within the eligible age range for the P3 MAP program.

Additional Challenges of Note

Another challenge mentioned by informants included the uncertain and changing start date of the training (dependent on reaching the minimum number required for a cohort). Related to outreach challenges related above, it is also worth noting that it was also well into the implementation before outreach staff developed materials showing the salary growth trajectory for a person who enters manufacturing as a career.

The evaluation plan included the following research question: Does P3 MAP have operationalized principles and values, core components that are measurable and observable, and a validated fidelity assessment; are modifiable components identified to support contextualization for new settings or populations? Facing large challenges in recruiting, the program was never able to devote time to operationalizing principles and values or any of the elements included in the research question.

B. Youth

Themes that emerged from the interviews with youth (N= 9) largely fall under some of the same broad subject areas as those identified for program and community partner staff - recruitment, enrollment, and retention. In particular, they provide insight into how youth came to learn about the program and the reasons they enrolled in it.

All youth interviewed, those in-progress in the training and those who had completed it, answered a set of questions that address how they found about the program, quality of information received, each of enrollment, motivations for enrolling, and types of support needed. Only the two Cohort 1 youth who had completed the program were asked additional questions that inquired about post-completion case management and program satisfaction.



How Youth Learned About the Program

No one way proved to be dominant as to how youth found out about the program, although one was mentioned by a few informants and has implications for future outreach efforts. Two youths found out about the program through ARIZONA@WORK Maricopa County. In one case, the youth had moved from another state and was looking for a job. In the other case, it

They told me, 'This is what you're good at.' They said, 'Manufacturing is in demand. Want to try it? You can try it and, if not, come back.'

was a youth's mother who took home to soft skills classes at the center and while there asked staff if they could help him find employment. After vocational aptitude testing, staff informed recommended the training. Two youths learned of the program, either directly or indirectly, from job fairs. The girlfriend of

one of the youths picked up information about program at an ASU job fair, while the second such youth first went to a South Phoenix Career Center Event, where, based on his interests, he was directed to GCC. GCC sent him to ARIZONA@WORK Maricopa County to enroll. Two youths first came to know about the program from flyers. One of them was given a flyer about the program from his aunt, who works for a community organization. The second received a program flyer at a Community Action Agency while looking for information about getting a better job. Two youths learned of the program on-line, one from the OFY webpage and a second from a Facebook ad. Finally, one youth went to GCC to inquire about a 10-month manufacturing training and saw a flyer advertising an orientation for the P3 MAP program posted on a door.

A common thread running through many of the youths' responses is the involvement of a family members or other close individuals in bringing the training to the attention of the youth. While much outreach has been directed at youth, the adults in their lives may be another appropriate outreach target.

Motivations for Taking the Training

Some youths had been exposed to modern machining before, but most had not. The youths who had been exposed to machining came with career interests that dovetailed with what the P3 MAP program offered. Some viewed machining as their long-term career, other youths viewed it a steppingstone to another position of interest, while yet others saw it as a career to check out while filling a need for immediate employment. Several noted the hands-on nature of that work as what attracted them to it.



One youth had taken a precision machining course in high school and was hoping that the hands-on aspect of the program would count as the vocational experience needed to break into such work as a career. For another youth,

Any time I tried to get hired on at a machine shop they wanted experience.

I have CNC and metalworking in mind because I like to work on cars. You need a 5-axis machine. Cause I always wanted to learn how to do manufacturing. I'm thinking about further education. They have an autobody class. Prior I did welding, fabricating, handyman, tiling, a little air conditioning.

the skills taught in the P3 MAP training were additional ones to add to his vocation skills "toolkit." This youth had a plan to add additional training that would enable him to do a variety of work on cars. Two of the youths were looking for a way to get out of their current types of employment. One of the of these youths mentioned he has a relative working at a large corporation who had told him he could help him get hired there if he gets a certificate in machining. This youth was currently working at a manual labor job that he considered dead end and had been considering going back to college. The other such youth, besides wanting to change careers, is into cars and had been exposed to machining used for making car parts and in gun shops.

One of the youths interviewed cited wanted quickly find employment to help his family out as his reason for taking the training. Another had not been successful in finding employment and was looking at the training as way to get back in the working world.

What motivated me is just like not being idle...Not going anywhere. I had a job before but only for 6 months...I see it as a jumpstart. I'm not sure if I would consider machining a career yet. But it could be a career to fall back on.

Clarity of Program Information and Ease of enrollment

I had to move at their pace. For me it was, 'Let's do it.' For them, 'First this, then that.'

Most of the youth interviewed interpreted "information" to mean what they learned about the program from the case manager who enrolled them. They viewed the information and assistance they received from their case managers and others as being good and the enrollment process as being for the most part smooth. Youths only mentioned experiencing several minor challenges in enrollment.

One youth had difficulty enrolling at GCC on-line on his phone. In the end, his case manager helped him enroll. Another youth cited the quick help of program staff to help him quickly enroll after an initial problem in getting a response to his on-line communication. A third youth had a challenge in providing all the documentation needed as he was living with his grandmother, rather than with his parents. His case manager was able to substitute his grandmother's income for that of his parents. Two other youths noted the ponderous nature of



the enrollment process. One stated that at first it felt like “a whole lot,” while the other pointed to its slow pace.

Family Members’ and Friends’ Perceptions of Enrollment in Training

It is useful to understand youths’ enrollment in the training in the context of their social worlds. Family members and partners were very supportive of youths’ decision to enroll. Friends of a youth whose relative told him he would help the youth get a job at his company thought it was a good decision, “well planned out.” One youth had differing reactions from friends of different ages – older ones thought he was lucky while younger ones were wondering why he was doing it. Another youth mentioned that he’d been telling friends about his enrollment on social media and they were happy for him. He noted that his parents were amazed at how fast ARIZONA@WORK Maricopa County helped him get into and start the training. Two youths used a machined material or video to explain the program to their friends, but the training did not appear to interest them.

I brought it up to them. Not a lot knew about CNC operation and lathe operation. But not interested enough to get into it. I showed them videos of getting up on the machines and writing code and they thought it was pretty cool.

Needs for Success in Training

Youth identified several areas of support they to succeed in the training. Three youths pointed to the strong support of the instructors as being vital to their success. Two youths found the math aspect of the curriculum challenging and required tutoring assistance. A third youth reported having difficulty reading the course material, with the instructors offering special assistance. Transportation

I understood at first. But three weeks in I understood I was falling behind. Next week I need a tutor or get left in the dust.

I’m more a hands-on guy...The book shows but you don’t really get it from reading. ‘Oh, this is what the book is talking about.’

assistance was another support some youths valued, with one getting fuel assistance for his vehicle a second getting nus and Uber cards. Two youths also mentioned getting hands-on experience in the training as being what would help them succeed.

Ways to Improve Outreach to Youth

Youths most commonly recommended the program use social media to reach more youth, specifically mentioning Twitter, Instagram, Facebook. On youth suggested advertising on Pandora. Two youth reference high schools as being a location to reach youth about a program like P3 MAP. One based his suggestion on his own experience of getting info about different colleges

Ads with appeal to a younger crowd. Show visually what someone makes using the machine.



when he was in high school while the second noted that some youth are not sure what they are going to do after they graduate. Another youth recommended showing youth machined items. Two youth noted that exposing youths to the machines, including while they are in use, could play a part in promoting the program, with one noting that people don't know what the machines are.

Youths also provide feedback regarding the messaging the program could use to make manufacturing training interesting to youth. Most informants who responded only referred to methods of outreach, but two pointed to the short duration of the training as a selling point.

Satisfaction with Training

The two youths who had completed the program were generally satisfied with most of its aspects. Both cited the fact that the program was hands-on as being its best feature, with one also appreciating that it had no cost involved. One of the two completers identified four aspects

The syllabus was mostly videos. It was good but boring...I picked it up pretty quick. For me, it was pretty easy.

of the program as being what he'd liked least. He didn't think the mix was between classroom learning and hands-on learning was in the right proportion, wishing there had been less of the former and more of the latter. He also reported that he already knew some of what was taught in the life skills curriculum. The two completers gave the overall program a rating of 8 and 10 on a scale of 10, with 1 meaning very bad and 10 meaning very

good. Several months after completing the program, one of these youths, who had been a contract laborer at Intel, was brought into a new position at the company at \$29 per hour.

C. Program Staff Perceptions of Implementation Capacity / Readiness Rubric

Program staff and community partner staff completed a capacity/readiness rubric developed based on the Implementation Drivers framework. The rubric is divided into three main thematic areas of implementation: enrollment, retention, and advancement (Exhibits 9-11). Within each thematic area are a number of preconditions for implementation success crafted from ideas provided by program and community partner staff during a Theory of Change program mapping session. Program partners were asked to rate the degree to which each precondition is currently in place, choosing from ratings of "fully in place," "partially in place," and "not at all in place." Given that respondents had different levels of knowledge of the program depending on their role and frequency of participation in meetings, in addition to a rating they could also choose "don't know." Of the 28 program partners invited to participate, 11 completed the rubric.

Responses for the enrollment preconditions (Exhibit 9) point to additional areas of growth in outreach efforts and are consistent with the findings from key informant interviews. It is notable that 82% of the respondents indicated that having effective ways to locate opportunity



youth and get information to them is only partially in place. Similarly, 55% of respondents viewed the program as having an effective social media and outreach events strategies partially in place. All or almost all respondents indicated that program had clearly documented process for determining whether youth were eligible for enrollment and provided youth with clear information about enrolling in WIOA and at GCC.

Under the retention section of the rubric (Exhibit 10), there were a few preconditions that just under two-thirds (64%, n=7) of the respondents felt are fully in place. These included ones related to program or community partner staff:

- providing youth with information during the enrollment process about support resources available;
- connecting youth with outside assistance with obtaining basic living resources;
- ensuring youth without a high school diploma or GED connect with outside resources for attaining one or the other;
- having knowledge about mechanisms and resources for supporting youth in meeting training attendance requirements; and
- having knowledge about supports available to help youth pass all required tests.

Slightly over a third (36%, n=4) of the respondents rated a number of the retention preconditions as being only partially in place. Responses to the precondition of the advancement section of the rubric suggest that program and community partner staff view connecting youth with employment as a “work in progress.” For example, 36% of respondents (n=4) indicated that having a process in place for connecting youth who complete the training to entry-level employment in manufacturing was partially in place; the same percentage of respondents reported it was not in place at all. Thirty-six percent of respondents (n=4) also indicated that a process to help training completers determine whether advanced manufacturing training will enable them to meet their career goals in partially in place, with another 18% reporting it is not at all in place. It is worth noting again that until late July 2019 the program did not have a substantial number of completers to assist in these ways, and that on July 22, 2019 the program held the MAP Speed Networking/ Introduction Event with manufacturers for Cohort 1 and 2 completers as well as Cohort 3 enrollees .



Exhibit 9. Ratings of Degree to Which Preconditions for Success in Enrollment are in Place

Enrollment Goal: P3 MAP effectively enrolls population of youth that is interested in pursuing training in manufacturing.				
Precondition	Fully in Place	Partially in Place	Not at All in Place	Don't Know
1. Program has identified effective ways to locate opportunity youth and get information to them. (n=11)	2 (18%)	9 (82%)	0 (0%)	0 (0%)
2. Program has an effective strategy/process for reaching opportunity youth through social media.	4 (36%)	6 (55%)	0 (0%)	1 (9%)
3. Program has an effective strategy/process for reaching opportunity youth through OFY website.	5 (45%)	5 (45%)	0 (0%)	1 (9%)
4. Program has an effective strategy/process for reaching opportunity youth through other media (radio ads, etc.).	3 (27%)	3 (27%)	4 (36%)	1 (9%)
5. Program has an effective strategy/process for reaching opportunity youth through referrals (from companies, organizations, etc.).	6 (55%)	4 (36%)	1 (9%)	0 (0%)
6. Program has an effective strategy/process for reaching opportunity youth by hosting or sponsoring outreach events.	5 (45%)	6 (55%)	0 (0%)	0 (0%)
7. Program has a standard protocol for determining whether interested youth are eligible for the program.	10 (91%)	1 (9%)	0 (0%)	0 (0%)
8. Program has documented requirements for enrolling youth in WIOA and at GateWay.	11 (100%)	0 (0%)	0 (0%)	0 (0%)
9. Program staff provide youth with clear information about all activities and documents required for enrollment for both WIOA and GateWay.	10 (91%)	1 (9%)	0 (0%)	0 (0%)

Notes: All 11 respondents provided a response for all parts of the rubric. In some instances, percentages do not total to 100% due to rounding.



Exhibit 10. Ratings of Degree to Which Preconditions for Success in Retention Are in Place

Retention Goal: Youth recruited for P3 MAP complete the training.				
Precondition	Fully in Place	Partially in Place	Not at All in Place	Don't Know
1. Program has a formal policy regarding program expectations.	5 (45%)	3 (27%)	2 (18%)	1 (9%)
2. Program staff provide youth with written materials describing program expectations or have a protocol for communicating program expectations to youth during the enrollment process.	5 (45%)	3 (27%)	1 (9%)	2 (18%)
3. Program staff provide youth with written materials describing the program's support resources or have a protocol for informing youth of the program's support resources during the enrollment process.	7 (64%)	2 (18%)	0 (0%)	2 (18%)
4. Program staff clearly communicate program expectations and support resources to enrolled youth, so that youth can feel supported.	6 (55%)	4 (36%)	0 (0%)	1 (9%)
5. Program has adequate support resources which includes ability to connect youth with outside resources to ensure enrolled youth can meet basic living needs during training.	7 (64%)	4 (36%)	0 (0%)	0 (0%)
6. Program has clear expectations and adequate support resources which includes ability to connect youth with outside resources to ensure enrolled youth work towards a high school diploma or GED during training (where applicable).	7 (64%)	4 (36%)	0 (0%)	0 (0%)
7. Program has a formal policy regarding attendance requirements.	6 (55%)	1 (9%)	1 (9%)	3 (27%)
8. Program staff have defined processes for ensuring youth are provided with information about attendance requirements.	6 (55%)	1 (9%)	1 (9%)	3 (27%)
9. Program staff are knowledgeable about available resources and mechanisms for supporting youth in their efforts to meet attendance requirements.	7 (64%)	3 (27%)	0 (0%)	1 (9%)
10. Community partner staff (i.e., case managers) are knowledgeable about available resources and mechanisms for supporting youth in their efforts to meet attendance requirements.	6 (55%)	4 (36%)	0 (0%)	1 (9%)
11. Program has adequate resources to support enrolled youth in their efforts to meet attendance requirements or refer them to outside resources for assistance.	6 (55%)	3 (27%)	0 (0%)	2 (18%)
12. Program has adequate resources to support enrolled youth in their efforts to pass all required tests.	6 (55%)	4 (36%)	0 (0%)	1 (9%)
13. Program staff are knowledgeable about available resources and mechanisms for supporting youth in their efforts to pass all required tests.	5 (45%)	4 (36%)	0 (0%)	2 (18%)
14. Community partner staff (i.e., case managers) are knowledgeable about available resources and mechanisms for supporting youth in their efforts to pass all required tests.	7 (64%)	3 (27%)	0 (0%)	1 (9%)



Exhibit 11. Ratings of Degree to Which Preconditions for Success in Advancement Are in Place

Advancement Goal 1: Opportunity youth who complete the P3 MAP training find employment in manufacturing.
Advancement Goal 2: Opportunity youth who complete the P3 MAP training continue on with advanced training in manufacturing at GateWay Community College.

Precondition	Fully in Place	Partially in Place	Not at All in Place	Don't Know
1. Program and community partner staff have a defined process for ensuring youth who complete the P3 MAP training know how and where to apply for entry-level manufacturing jobs.	6 (55%)	2 (18%)	2 (18%)	1 (9%)
2. Program and community partner staff have a defined process for helping opportunity youth who complete the P3 MAP training to determine whether advanced manufacturing training will enable them to have the types of employment opportunities they want.	5 (45%)	4 (36%)	2 (18%)	0 (0%)
3. Program staff community partner staff have a defined process for assisting youth who complete the P3 MAP training in applying for entry-level manufacturing jobs.	4 (36%)	4 (36%)	4 (36%)	1 (9%)
4. Program staff and community partner staff have a defined process for assisting youth who complete the P3 MAP training in applying for entry-level manufacturing jobs.	5 (45%)	3 (27%)	3 (27%)	5 (45%)
5. Community partner staff (i.e., case managers) are knowledgeable about available resources and mechanisms for youth who complete the P3 MAP training to afford basic living expenses (housing, food, health, transportation, etc.) and tuition for advanced training.	5 (45%)	3 (27%)	1 (9%)	1 (9%)



D. Lessons Learned

The implementation of P3 MAP has offered a large number of lessons learned for guiding the design and implementation of future career training programs for opportunity youth in manufacturing and other professions in Maricopa County. Many of the lessons learned were explicitly framed as such by program and community partner staff, while others are suggested by the comments of staff and youth.

Obtain Detailed Data on Manufacturing Needs for Program Design

Program developers need detailed information from manufacturers about their current and projected future labor needs, including information about the types of positions that will need to be filled and the qualifications for those positions, to ensure that funded programs can be effective. Short-term training programs for opportunity youth should complement or feed into longer-term industry and state apprenticeship opportunities.

Obtain Close and Extended Collaboration from Manufacturers

All grant proposals for manufacturing training for opportunity youth should be developed in close collaboration with manufacturing associations and have the continued involvement of manufacturers on a program oversight board throughout implementation. This will facilitate the development of appropriate programs and the types of guidance and support that are important for good implementation.

Include Youth in Program Planning

The involvement of opportunity youth during the program planning phase will help program developers understand what types of career development they are interested in and how a program with such youth may be appropriately implemented. Youth perspectives may be collected using focus groups with the collaboration of youth-serving organizations. Ongoing youth involvement in outreach and recruitment may be beneficial to program success. All youth participation should be financially incentivized to acknowledge its value.

Consider Ease of Transportation in Location of Enrollment and Training Sites

Transportation has been identified as a major challenge for opportunity youth. In addition to including transportation assistance in program budgets, the distances opportunity youth must travel to enroll or participate in programs should be major considerations in the choice of enrollment sites and training locations. For some programs, it may be most effective to offer a training in more than one location to be able to more readily draw enrollment from large concentrations of opportunity youth. Program developers should consider the use of Geographic Information Systems (GIS) technology and mapping tools to identify where geographically there are high densities of opportunity youth and to then offer enrollment sites and training locations in these high-density areas.



Increase Bi-Lingual Outreach Efforts

All program outreach material, including posts on social media, should include Spanish language versions. It may also be useful to translate some such materials for targeting specific populations such as refugees. In all instances, materials would not necessarily be translated for opportunity youth but for adults in those communities (such as parents), who often help recruit family members for these programs.

Conduct More Outreach with Parents / Family Members

A few of the youth recruited for P3 MAP came as a result of inquiries and assistance of parents or other relatives, and at least one program participant was living with his grandmother at the time of recruitment. It may be useful for future manufacturing or other training programs for opportunity youth to direct more outreach efforts to adults through places they frequent but youth may not. These might include churches and other houses of worship, community centers, markets, and health centers or clubs.

Develop a Detailed Outreach Plan

Recruitment and outreach are important considerations even in the proposal development phase of a program. The challenges P3 MAP faced in recruitment suggest that it would be beneficial for a program to have a detailed outreach plan ready at the start of program implementation. An outreach plan should be guided, to the degree possible, by information collected from opportunity youth and the literature on best practice strategies for engaging such youth. An outreach plan should identify outreach goals, specify action steps, set targets and performance measures as well as benchmarks, establish timelines, and clearly identify responsible parties.

Include in-School Youth as a Target Population

Program and community partner staff as well as program participants identified in-school youth as a viable target for a manufacturing training program. Although not officially meeting the definition of opportunity youth, some high school seniors have already decided they do not want to continue on to college or are unable to do so, while at the same time they are not sure of what they will do once they graduate. Moreover, some such youth have already engaged in vocational courses in high school that indicate an interest in tool-based work or have a hobby such as working on cars that also has a connection with modern machining. One of the youths in P3 MAP identified his high school guidance counselor as having been the one who first informed him about machining. This suggests that guidance counselors may have a role in recruitment for future manufacturing training programs for youth.



Promote Manufacturing to Youth in a Dynamic Way Using Appropriate Messaging

P3 MAP outreach staff identified the importance of using appropriate messaging with opportunity youth, adapting their messaging approaches through in-person interactions as well as printed material and on-line as they learned more about what worked and what did not. They came to realize that they had to highlight what might be “cool” about machining. They found that emphasizing the coding aspect of CNC machining engaged youth with an interest in computer coding and that youth were also impressed when they could see up-close the milling and lathing machines used in the training. Outreach staff also identified that the stereotypical image machining has as occurring in a dirty, physically uncomfortable environment can be a turn-off to young women. Future manufacturing training for opportunity youth should put more efforts into developing innovative ways to portray modern manufacturing as a career consistent with the interests and values of youth. More emphasis may be put on showing youth the variety of items made with machining and the ability to take a stepped approach to making a career in manufacturing, with a corresponding steady progression of wage increases. A number of the P3 MAP participants mentioned the appeal of the hands-on aspect of machining work, suggesting that would be another area worthy of emphasis in messaging.

Put in Place Structures that Facilitate Accountability Within Collaboratives

The collaboratives responsible for implementing future manufacturing training programs for opportunity youth would benefit from making the MOUs with partnering agencies and organizations more detailed than those developed for P3 MAP to establish clarity as to what each party is expected to do and a timeline for those activities. Additionally, as such collaboratives may include industry associations, government agencies, and academic departments, it is important that the program manager be an individual in a position within their organization of sufficient authority to hold all collaborators accountable for their commitments.

Develop Job Descriptions with Performance Metrics

The implementation of P3 MAP was sometimes negatively impacted by a lack of clarity in the roles of program staff. Especially when multiple individuals are responsible for a particular aspect of implementation it can be difficult to know what is expected of each, how performance will be measured, and who is ultimately responsible for supervising and evaluating staff efforts.

Consider Additional Ways to Assist Participating Youth in Meeting Basic Needs

P3 MAP program staff and community partner staff, particularly case managers, noted the challenges in meeting basic needs that some of the program participants faced. Some youths interviewed also spoke of having problems with housing, transportation, or other basic needs. Future manufacturing training programs for opportunity youth should take into consideration up-front that some youth may experience basic needs challenges while they are working to complete their training and how the program might assist them. Whether youth are meeting



their basic needs cannot be looked at on an “as needed” basis as P3 MAP found that issues related needing to work extra hours when available at job, unstable housing, on and off phone service, and lack of appropriate transportation can impact youths’ attendance, ability to complete homework in a timely manner, and keep appointments with tutors. Additional thought and research should be devoted to ascertaining whether providing youth a portioned stipend throughout a training will give better results in recruitment and retention rather than a single payment at completion. Overall, assistance in balancing the time demands associated with meeting basic needs with those such as homework related to fulfilling program requirements is something that should be “baked in” to the design of any training program for opportunity youth.

Proactively Identify Youth’s Academic Needs

Some P3 MAP youth had low reading or math skills, which without substantial assistance would have prevented them from completing the program. It is likely that this population in general may have the same challenges. Future manufacturing training programs for opportunity youth should have procedures in place for identifying youths who require special assistance and connecting them from the beginning of the course with services such as tutoring that they will require to succeed in a program. Part of this process should involve assisting a youth in obtaining records from a previous educational institution they attended that could help validate a history of qualifying for special assistance (e.g., an IEP). It is unreasonable to expect that instructors provide such help for an extended period of time, however dedicated they may be to helping youth succeed. Review of the demographics for all cohorts shows that almost forty percent of past, current, and projected future participants are identified as having a disability or being an English language learner, indicating that the need for such support is not an isolated one for opportunity youth.

Identify One Individual to Serve as a Youth Mentor

Informants identified the importance of youth having the same case manager from enrollment through completion of the training. They also expressed the view that it is useful for youth to have one individual amongst the staff they interact with in the training to serve as a support person, an individual who will regularly check-in with them and guide them on their way to success in the program. This individual could be a manufacturing training or life skills instructor, who informally filled the role during the first two cohorts but could also be a person with another role in the program.



V. Discussion and Conclusions

P3 MAP faced many challenges due to changes in its leadership and collaboration membership and a delay in beginning implementation. However, once ASU took on the role as lead agency under a revised scope of work the program was able to quickly put staff into needed roles and begin recruiting efforts. Despite having a revised scope of work, the program brought with it some key assumptions related to how youth would be recruited and partners' roles in outreach and recruitment. Major assumptions included that opportunity youths are interested in working in manufacturing, that manufacturers in Maricopa County have a great need for young workers and would be very engaged with the program, and that the program would be able to recruit a large number of youths through WIOA (ARIZONA@WORK Maricopa County) and key community partners. None of these assumptions proved to be true. While ARIZONA@WORK Maricopa County contributed substantial efforts to the enrollment process and case management, its contribution to outreach and recruitment was minimal until later in the grant period due to competing constraints on staff time and the fact that P3 MAP was only presented within the context of its many other career trainings offerings.

All through the project, through collaboration at regular meetings and other means of steady communication, the partners worked together to adapt their outreach, recruitment, and enrollment strategies to address challenges faced. In keeping their commitments to the program, the partners were able to overcome many challenges, but were unable until late in the project to recruit substantial numbers of youth. The experiences of youth, program staff, and community partner staff with P3 MAP form the basis for many lessons learned. The following are recommendations based on key lessons learned.

Future Program Development

It is important to include opportunity youth in planning future employment training programs to find out what they are interested in and get their input on recruitment strategies, supports needed, instructional strategies, etc. For manufacturing programs, it's important for program developers to closely engage manufactures to obtain a detailed picture of their needs and obtain their commitment to assist in program oversight and employ program graduates.

Outreach and Recruitment

The program identified the need to craft messaging about manufacturing training that appeals to youths' interests, such as coding and working on automobiles. Training programs for opportunity youth can benefit bilingual materials that enable it better reach parents and other relatives who guide youth. In-school youths should be considered a prime target of future manufacturing training projects as many high school seniors do not have plans for continuing on to college or post-graduation employment arranged. Moreover, some have already shown an interest and aptitude in high school vocational courses. Proactively engaging such youth in career training may prevent some from becoming opportunity youth.



Retention

Two areas stand out as needing to be addressed to retain opportunity youth in the program or similar future programs. The first is that some opportunity youths in the program faced challenges in meeting their basic needs. Community partner case managers and program staff assisted youth with issues related to transportation, housing, clothing, and cell phone service. Almost all youths were working at one or more jobs besides participating in the training, facing large time constraints as a result. Whatever assistance with basic needs that can be provided will be helpful to youth. Programs for opportunity youth should also consider whether, given youths' ongoing economic challenges, retention would be enhanced and youths' stress level while in the training reduced if program stipends were distributed in portions throughout a training rather than in a lump sum at completion.

The second vital support for retention identified by P3 MAP is assistance for youth with low reading and math skills. Some youths were able to complete the training only with extra reading assistance from instructors and math tutors. It is likely that having low academic skills is not an isolated phenomenon with the population of opportunity youth. The instructors and program staff agreed that youths' need for reading and math assistance should be identified during the enrollment process so that supports can be in place from the first day of a training.

Program Planning and Staffing

Programs for opportunity youth would benefit from having developed upfront a detailed outreach plan and clear job descriptions for outreach staff. P3 MAP outreach staff worked hard to reach and enroll opportunity youth, adapting their strategies over time. However, these efforts did not fit within an organized framework based on the lessons learned of previous programs as documented in the literature. The program found it difficult to break down into small actionable steps what was needed to achieve its outreach and recruitment goals. Moreover, the staff involved in outreach and recruitment lacked clear job descriptions with performance accountability. These issues were factors, although not the only ones, that contributed to making it difficult for the program to recruit the targeted number of youths.

Collaboration

The program's partners expended great efforts to enroll opportunity youth and ensure they succeeded in the training. The collaborative would have been enhanced by more detailed MOUs elaborating on roles and expectations that would have prevented misconceptions regarding outreach, recruitment, and enrollment. Ensuring that all aspects of such MOUs are met would benefit from having a program manager with a position in their organization of sufficient authority to allow interaction with management of partnering organizations.

Maricopa County stands well-positioned to make use of the lessons learned from P3 MAP to both better assist opportunity youth in finding employment and meet the increasing needs of its manufacturers for a new source of trained entry-level employees.



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Appendix A. Manufacturing and Life Skills Training Curricula

P3 MAP CNC Mill Operator Training Course Competencies

Competency

- Demonstrate the ability to read and understand MSDS information in order to properly protect themselves and the environment from potentially hazardous materials in the workplace.
- Use micrometers, indicators, calipers, height gauges, etc. to measure and inspect parts accurately.
- demonstrated the ability to read basic part prints and/or technical drawings including GD&T and apply the information as it relates to gauging, dimensioning, and Tolerancing.
- Recognize, name, and describe the function of the primary components of a CNC mill.
- Perform preventative maintenance checks on a CNC mill. This includes checking all fluid levels, system pressure, tooling wear, component lubrication, and cleaning.
- Select and use appropriate cutting tools and tool materials for a given application.
- Calculate and apply speeds and feeds for various cutting conditions and materials.
- Read and understand basic G and M codes for CNC mills.
- Set up and operate a CNC milling machine to produce parts to specifications.
- Responds to a CNC mill malfunction. Determines when a malfunction has occurred and responds appropriately. This includes viewing alarm information, determining the cause of the malfunction, correcting the malfunction, and recovering the machine from the malfunction.



Life Skills Core Competencies

Domain	Participant gains ability to:
Character development	<ol style="list-style-type: none"> 1. Develop and/or improve upon their self-worth, self-concept, self-esteem, and accountability for their future. 2. Exercise critical thinking and make sound rational decisions. 3. Implement strategies that resolve conflicts in productive ways with teachers, peers, family members, and the community at large. 4. Understand and recognize the importance of becoming intrinsically motivated to pursue academic excellence. 5. Utilize methods and strategies that help to establish and/or enhance personal and academic goal mapping initiatives. 6. Understand and implement the qualities of an effective leader and team member
Financial Literacy	<ol style="list-style-type: none"> 1. Confidently use the services and products of financial institutions such as banks, credit unions, and savings and loans. 2. Create and implement a budget. 3. Distinguish between “wants” and “needs.” 4. Use credit and borrow money responsibly. 5. Protect their financial rights and safeguard their money. 6. Determine what it costs to maintain a household. 7. Determine what it costs to care for a child. 8. Determine how much money is deducted from paychecks for taxes and insurance. 9. Determine how every spending decision affects other spending opportunities. 10. Determine what type of education it takes to get the job you want. 11. Determine how the type of job you have affects how much money you will make. 12. Recognize available options for purchasing a car and paying for college.
Personal Health and Wellness	<ol style="list-style-type: none"> 1. Comprehend concepts related to health promotion and disease prevention to enhance health. 2. Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors. 3. Demonstrate the ability to access valid information and products and services to enhance health. 4. Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks. 5. Demonstrate the ability to use decision-making skills to enhance health. 6. Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks. 7. Demonstrate the ability to advocate for personal, family, and community health.



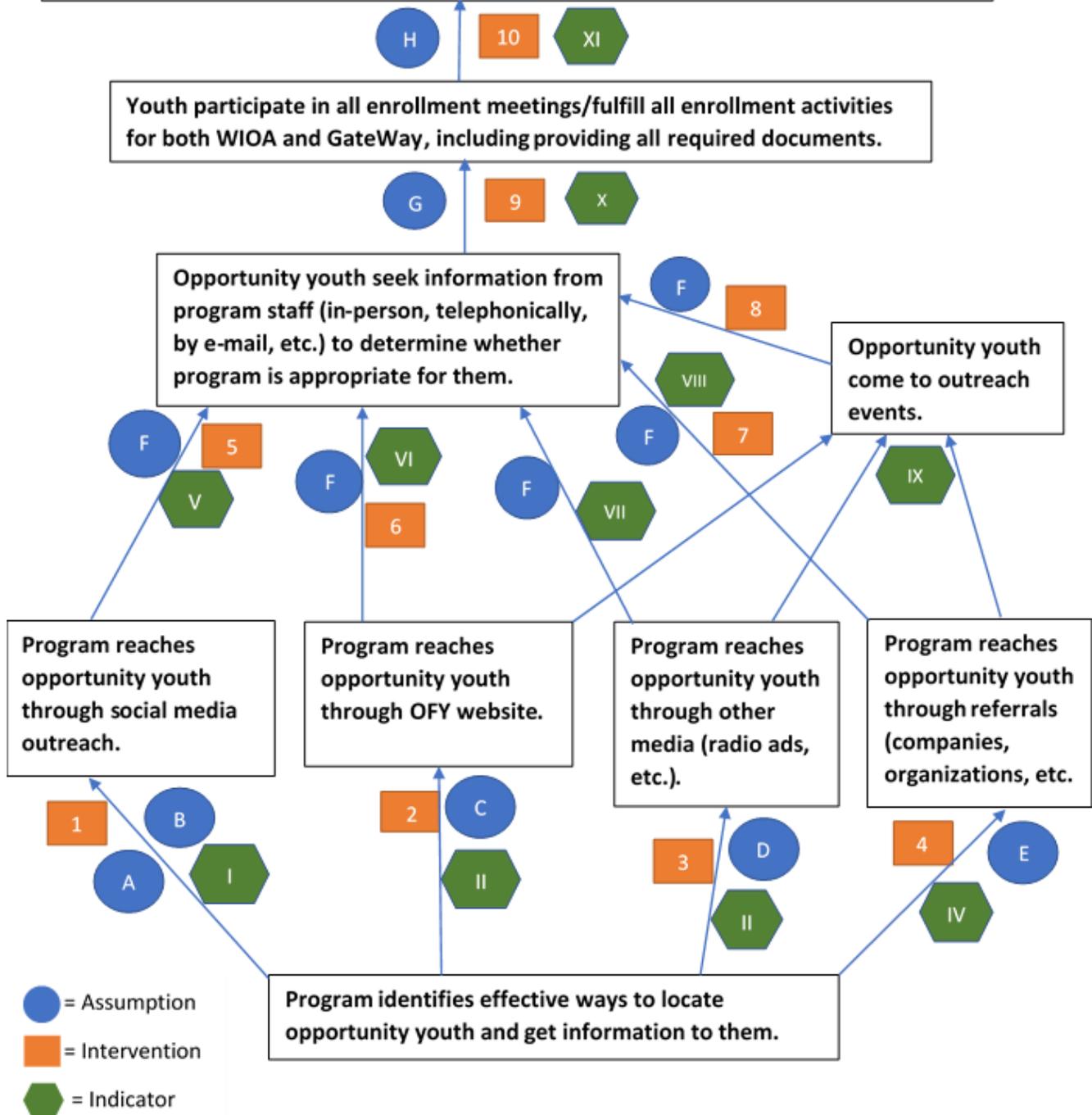
Domain	Participant gains ability to:
Career and College Readiness	<ol style="list-style-type: none"> 1. Understand the importance of becoming a better public speaker and utilize tools and strategies to become a better public speaker. 2. Understand the benefits of networking, identify networking opportunities, and take advantage of them. 3. Identify the different types of careers available, and academic efforts needed to achieve these careers. 4. Identify resources and systems to find scholarship opportunities. 5. Utilize effective techniques in applying for scholarships. 6. Utilize tools and strategies to expand their horizons from their comfort zone. 7. Identify resources and tools to effectively manage their time.
Workplace/ Employability Skills Readiness	<ol style="list-style-type: none"> 1. Employ complex communication skills in a manner that adds to organizational productivity. 2. Collaborate, in person and virtually, to complete tasks aimed at organizational goals. 3. Integrate expertise in technical knowledge and skills with thinking and reasoning strategies to create, innovate, and devise solutions. 4. Conduct oneself in a professional manner appropriate to organizational expectations. 5. Exercise initiative and self-direction in the workplace. 6. Interact effectively with different cultures and generations to achieve organizational mission, goals and objectives. 7. Function effectively within an organizational culture. 8. Observe laws, rules and ethical practices in the workplace. 9. Prepare an effective résumé. 10. Complete a job application 11. Demonstrate interviewing skills



Appendix B. Theory of Change Program Logic Maps

Enrollment Map

Enrollment Goal: P3 MAP effectively enrolls population of youth that is interested in pursuing training in manufacturing.



Assumptions

A:

- a) Data is available on where opportunity youth are and how to reach opportunity youth.
- b) Program researches where opportunity youth are and how to reach opportunity youth.

B.

- a) Opportunity youth will be exposed program posts on social media.
- b) Opportunity youth will be attracted by and read program posts on social media.

C.

- a) Opportunity youth will come to the OFY website.
- b) Opportunity youth will be attracted by and read program posts on AYF website.

D.

- a) Opportunity youth access radio stations, etc. where ads are posted.
- b) Opportunity youth will be attracted by and listen to/read ads posted.

E.

- a) Opportunity youth come in contact with or work at companies or organizations that will refer them to the program.
- b) Companies or organizations that come into contact with opportunity youth are willing to refer them to the program.

F.

- a) Opportunity youth consider manufacturing as a career of possible interest.
- b) Opportunity youth know who to talk with about the program and are willing to make an effort to do so.
- c) Opportunity youth can readily contact program county staff about the program by phone or e-mail.
- d) Opportunity youth can get to locations where they can speak with someone in-person about the program.

G.

- a) After obtaining comprehensive information about the program, opportunity youth conclude that the program is appropriate for them.
- b) Opportunity youth are willing to go through all enrollment-related procedures.
- c) Opportunity youth can readily get to locations where enrollment-related activities occur.
- d) Opportunity youth have the time to complete all enrollment-related activities.

H.

- a) After participating in all enrollment activities, youth attends first class.



Interventions

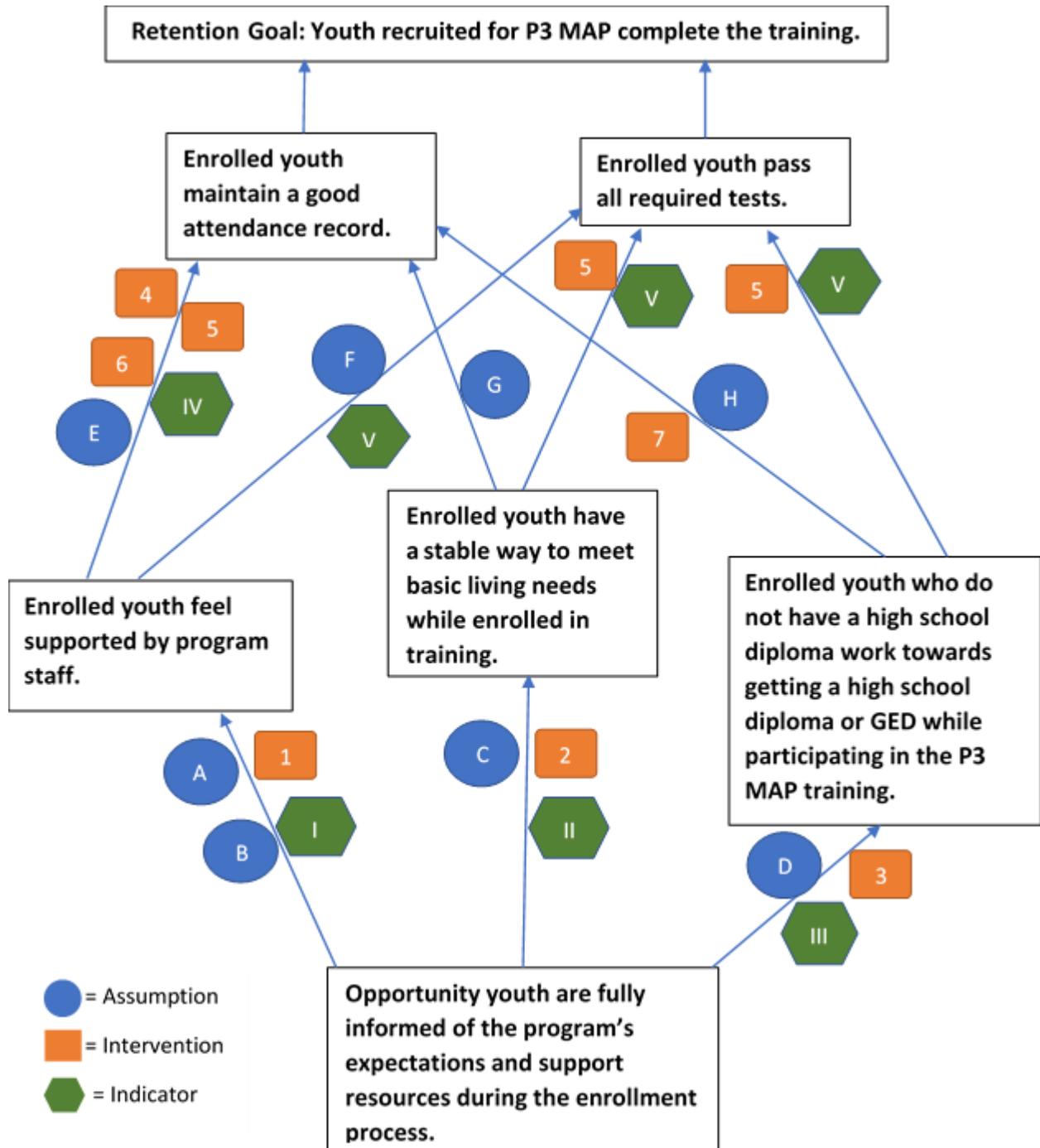
1. Program posts ads on Facebook, Instagram, Messenger, and Audience Network.
2. Program post information on AYF website.
3. Program buys ads on radio stations, in publications, etc.
4. Program makes arrangements with companies, organizations, etc. to refer youth.
5. Program staff follow-up with youth who leave contact information through social media.
6. Program staff follow-up with youth leave contact information through OFY website.
7. Program staff follow-up with youth referred by companies and organizations.
8. Program staff follow-up with youth who come to outreach events.
9. Program staff provide support needed for youth to complete enrollment process.
10. The program provides, as needed, transportation assistance to facilitate youths' getting to sites for enrollment activities.

Indicators

- I. Number of hits and click throughs on social media post.
- II. Number of clicks on webpage link "Learn About Manufacturing Program".
- III. Number of youth 17-24 estimated to be exposed to ad.
- IV. Number of companies and organizations who agree to refer youth.
- V. The number of opportunity youth who learned about the program through social media who contact the program for more information.
- VI. The number of opportunity youth who learned about the program through the OYF website who contact the program for more information.
- VII. The number of opportunity youth who learned about the program through ads who contact the program for more information.
- VIII. The number of opportunity youth who learned about the program from companies and organizations who contact the program for more information.
- IX. The number of opportunity youth coming an outreach event who learned about the outreach from each type of outreach effort that was used.
- X. Number of opportunity youth/percentage of opportunity youth who have sought information from program staff that fulfill all enrollment activities.



Retention Map



Assumptions

- A. P3 MAP partners' staff are knowledgeable about communicating and working with opportunity youth.
- B. Youth feel comfortable communicating with instructors and P3 partners' staff.
- C. P3 MAP partners' staff provide information to youth about the resources that are available to help reduce barriers and increase their success.
- D. Enrolled youth do not have a high school diploma have sufficient time and academic ability to work towards completing a high school diploma or getting a GED while participating in the P3 MAP training.
- E. Youth who feel supported by program staff are able to maintain good attendance.
- F. Youth who feel supported by instructors and program staff are able to perform well academically.
- G. Youth who have a stable living situation are able to maintain a good attendance record.
- H. Working towards a high school diploma or GED does not negatively impact a youth's ability to participate in the program.

Interventions

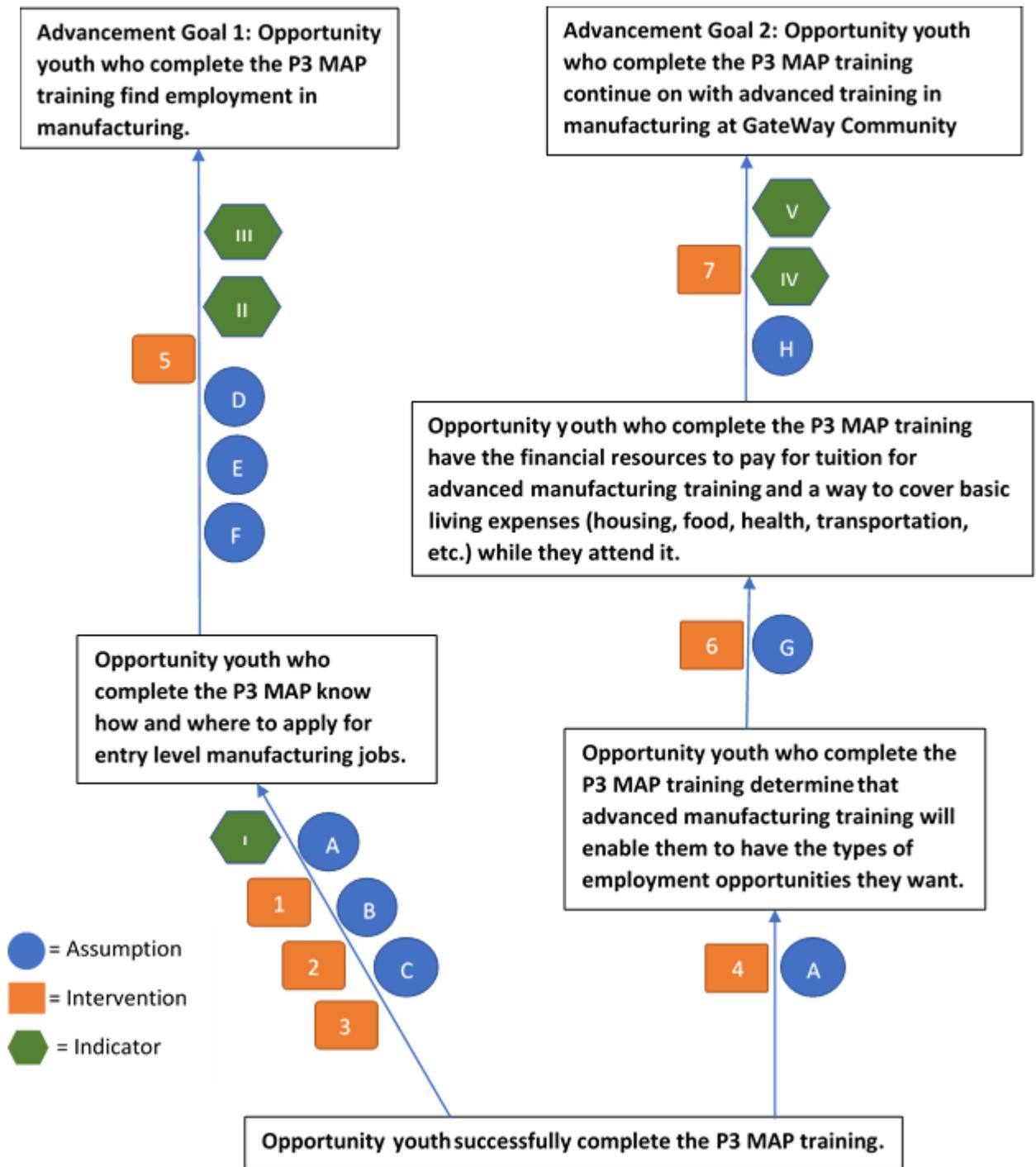
- 1. Case managers, instructors, and other program staff offer encouragement to enrolled youth.
- 2. Case managers monitor youths' ability to meet their basic need to be able to quickly identify youth who are experiencing challenges and need additional assistance.
- 3. Case managers help youth locate and enroll in an appropriate high school completion or GED.
- 4. Case managers and instructors monitor youth' attendance records and collaborate to determine the type of intervention that is necessary to assist any youth whose attendance falls below the required threshold.
- 5. Case managers and instructors monitor youth' academic performance and collaborate to determine the type of intervention that is necessary to assist any youth whose academic performance falls below the required threshold.
- 6. Instructors and program staff provide extra support to youths who fall behind in the program.
- 7. Instructors and program staff monitor that youth enrolled in a high school or GED program stay on target to complete it.

Indicators

- I. Number of trainings on how to work with opportunity provided to instructors and P3 MAP partner staff.
- II. Percentage of youths identified as facing challenges in meeting basic needs who receive referrals or other assistance.
- III. Percentage of youths identified as not having a high school diploma or GED who receive assistance in enrolling to complete high school or obtain a GED.
- IV. Percentage of youth that maintains a satisfactory attendance record.
- V. Percentage of enrolled youth who pass all required tests.



Advancement Map



Assumptions

- A. Based on their experience in the P3 MAP training, youth feel that manufacturing is a sector they wish to work in.
- B. Youth feel confident in the abilities they have gained from their training.
- C. Youth do not have better opportunities than finding employment in manufacturing or continuing on with advanced manufacturing training.
- D. Local manufacturing firms have openings for individuals with the certifications obtained through P3 MAP training.
- E. Manufacturing employers view P3 MAP graduates as being viable candidates for their openings.
- F. P3 MAP staff maintain contact with participants after they complete training.
- G. Opportunity youth who wish to continue with advanced manufacturing training can arrange tuition and meet basic living needs.
- H. Gateway offers a 900-hour manufacturing training course with a start date that is convenient in relation to the end date of the P3 MAP training.

Interventions

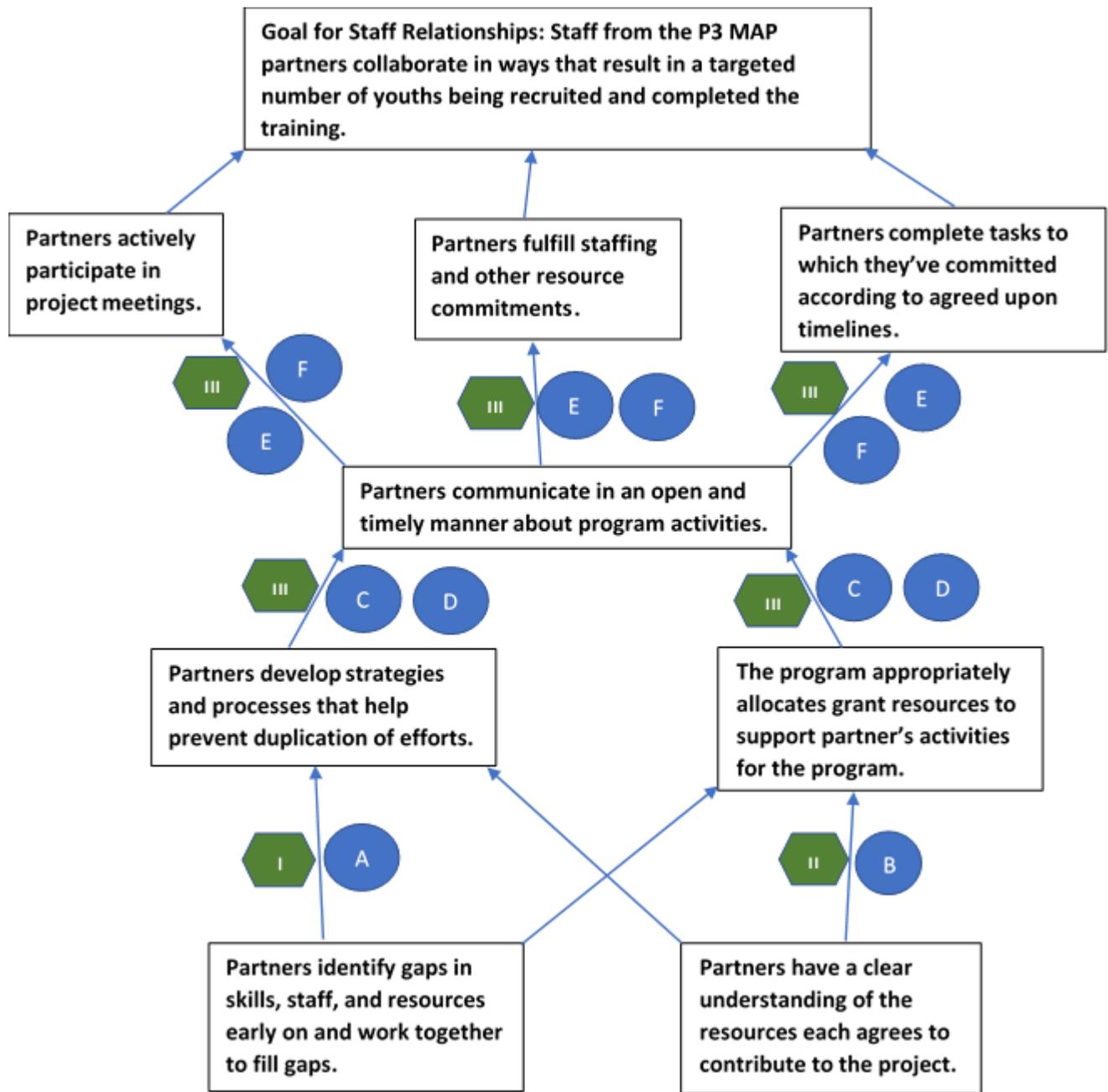
- 1. Program staff identify the types of positions for which graduates of P3 MAP training are qualified.
- 2. Program staff identify manufacturing companies that periodically have positions open whose qualifications match those of P3 MAP graduates.
- 3. Program staff refer P3 MAP graduates to manufacturing companies interested in entry-level applicants.
- 4. Program staff provide participants information about the 900-hour course and the types of jobs they will be qualified for upon completion of it.
- 5. P3 MAP provides participants “soft skills” employment skills training in areas such as how to develop a resume to how to do well in an interview.
- 6. P3 MAP staff provide counseling and referrals to participants about enrolling in the 900-hour course at GateWay Community College and accessing other resources needed to support them while they attend that course.
- 7. P3 MAP staff assist youth who qualify in enrolling in the 900-hour manufacturing training.

Indicators

- I. Number and percentage of opportunity youth who program staff provide information to about manufacturing companies looking for entry level employees.
- II. Number and percentage of training P3 MAP graduates with whom program staff maintain contact.
- III. Number and percentage of training P3 MAP graduates who find employment in manufacturing.
- IV. Number and percentage of P3 MAP graduates who want to enroll in 900-hour manufacturing training at GateWay Community College who are able to.
- V. Number and percentage of training P3 MAP graduates who enroll in 900-hour manufacturing training at GateWay Community College.



Capacity: Collaboration Map



- = Assumption
- = Intervention
- ⬡ = Indicator



Assumptions

- A. Partners have all the information they need at the beginning of the program to be able to identify gaps in skills, staff, and resources.
- B. The collaborative is transparent about the benefits each partner obtains from being involved in the program.
- C. Members of the collaborative feel conformable working through disagreements.
- D. Members of the collaborative have agreed upon processes for working through disagreements.
- E. Partners remain enthusiastic about the project throughout its duration.
- F. Staffing and resource requirement do not turn out to be greatly larger than originally estimated.

Indicators

- I. Meeting notes or other records documenting identification and strategizing the filling of gaps and strategies for not duplicating efforts.
- II. Records showing how project resources have been allocated.
- III. Meeting notes or other administrative records.

Interventions

None identified by partners



Appendix C. Key Informant Interview Protocols

P3 MAP Youth Interview Protocol

1. How easy to understand was the information you received about the program?
(PROBE: Not at all easy to understand. Easy to understand. Difficult to understand. Very difficult to understand.) Please explain.
2. How complete was the information you received about the program? (program contents (manufacturing and job skills (Jody) training, program requirements (attendance, hours, tests, etc.), the kind of work I could get when I completed the program, enrollment requirements.
(PROBE: It had everything I needed to know. It had a lot of what I needed to know. It had some of what I needed to know. It had a little of what I needed to know.) Please explain.
3. What could the program do to improve the outreach/advertising to reach more youth?
4. What motivated or moved you to enroll in the program?
5. How easy was the enrollment process?
(PROBE: Not at all easy. Somewhat easy. A little difficult. Very difficult to understand.) Please explain.
6. What do your friends who you told about the program (that you were taking the training) think about manufacturing as career?
7. What message could the program use to make manufacturing training seem more interesting to youth?
8. What do you need from the from to be able to succeed in completing it and going on to employment in manufacturing?

THE FOLLOWING QUESTIONS ARE ONLY FOR COMPLETERS

9. The program provides participant a case manager during the training and for a year after. What worked well in the case management you received? What didn't work well?
10. What did you like the best about the program?
11. What was the thing you liked the least about the program?
12. If you had to rate the training program on a scale of 1-10, with 1 being very bad and 10 being very good, what number would you give it? Please explain.
13. How could the program be improved?



14. As of now, how have you used the manufacturing training/certification you obtained? Do you have plans to use the manufacturing training/certification you obtained in the future? If so, how?

P3 MAP Primary Partners Interview Protocol

1. What worked well for the collaboration as it implemented the program? [PROBES; All aspects – outreach, enrollment, registration at GWCC, case management, manufacturing training, etc.]
2. What challenges did the program face in recruitment?
3. What challenges did the partners face in collaboration?
4. What are some of the lessons learned from implementing the program? [PROBE: From the perspective of your agency/organization]
5. How well did P3 MAP program fit the priorities and values of the community - including opportunity youth, culturally and linguistically specific populations, and other training existing initiatives / partnerships? [PROBE: Especially meeting needs or preferences of youth]
6. What did the program do to keep youth engaged in the training?
7. Did the P3 partners have enough staff and other resources to support the effort? Please explain your answer.
8. Was the collaborative transparent about the benefits each partner obtains from being involved in the program? Please explain your answer.
9. Was the collaborative clear about what was required (staff, meeting participation, etc.) from each partner? Please explain your answer.
10. Did partners consistently meet their commitments to the program? Please explain your answer.
11. Did partners' enthusiasm about the project show any changes over its duration? Please explain your answer.
12. How could implementation of a future project like P3 MAP (i.e., manufacturing training for opportunity youth) be improved?



P3 MAP Partners with Specific Roles

1. What worked well for the collaboration as it implemented the program? [PROBES: The aspect they were specifically involved in or what they were aware of from meetings, etc.]
2. What challenges did the partners face in collaboration?
3. What challenges did the program face in [the activities they were involved in]?
4. What are some of the lessons you learned regarding the part of implementing the program that you were involved in? [PROBE: From the perspective of your agency/organization) For the P3 MAP program as a whole?
5. Did the P3 have enough staff and other resources to effectively carry out _____? [PORBE: The activities they were involved in – recruitment, outreach, enrollment, etc.] Please explain your answer.
6. Was it clear throughout your involvement what your role was and was expected of you? Please explain your answer.
7. Did you have the opportunity to offer input on the part of implementation you were involved? Did you feel like your input was acted on? Please explain your answer.
8. How would you rate the effectiveness of the program in the activities in which you were involved? recruitment, outreach, enrollment, etc.] Please explain your answer.
9. Did partners consistently meet their commitments to the program? Please explain your answer.
10. Did partners' enthusiasm about the project show any changes over its duration? Please explain your answer.
11. How could implementation of a future project like P3 MAP (i.e., manufacturing training for opportunity youth) be improved?

P3 MAP Case Managers

1. When did start working with MAP?
2. How many youths are you case manager for?
3. How have you assisted the youth?
4. What does ongoing case management consist of?
5. What's worked well with working with the P3 MAP program/youth?



6. What challenges have you faced working with the P3 MAP program/youth?
7. How have you found out what you needed to do with the P3 MAP?
8. How do you get communication about/from the program? How often have you gotten information?



Appendix D. Outreach Materials

Original Program Flyer (contact name and phone number removed)

Start a Career in Manufacturing!

Performance Partnership Pilot (P3) Manufacturing Training Program

REV. 5/29/18

CNC Lathe Operator or CNC Mill Operator

- Starts July 9, 2018
- 14 Week Training Program
- Afternoon/Evening Sessions
- *NIMS CNC Lathe or CNC Mill Operator Skills Level I Credential

**\$1,167.00 Stipend
Upon Completion\$\$\$**

Training Site

**GateWay Community College
Central City Campus**
1245 E Buckeye Road
Phoenix, AZ

*(Phoenix Metro Bus Stop
Directly in Front of the Campus!)*

Career

- ♦ Bring ideas to life!
- ♦ High-tech environment
- ♦ Job Security!
- ♦ Operate computer-controlled machines or robots
- ♦ Only limited by your Imagination!

No Tuition Cost to You!

Eligibility

- ♦ 17–24 years of Age
- ♦ Eligible to Work in the United States
- ♦ Not Currently Attending School
- ♦ Final Eligibility Determined at Intake

Training Dates and Times

- ♦ July 9, 2018—October 15, 2018
- ♦ 11:30 am —7:00 pm Weeks 1-7
3:00 pm—7:00 pm Weeks 8-14
- ♦ Mondays and Wednesdays *OR*
Tuesdays and Thursdays



February 2019 Shop Tour and Information Flyer



OPPORTUNITIES FOR YOUTH

Pathways to a Brighter Future

Manufacturing Program

Shop Tour & Information Session

Receive a \$10 gift card*

when you join Opportunities for Youth for the **GateWay Manufacturing Program Shop Tour!** Learn more about the program, meet the faculty, see the machinery, and find your *Pathway to a Brighter Future!*

Learn about our **Full-Ride Scholarship Program**, and how you can use it to complete the program for **FREE** and start your new career in just 14-weeks!

When?

Saturday, February 9th, 2019
2:00 PM - 4:00 PM

Where?

GateWay Community College
1245 E. Buckeye Rd.
Phoenix, AZ 85034

Learn More Today!

www.opp4youth.org/event/mfg

In Partnership with:



* Must be between the ages of 17-24, to receive gift card. One gift card per qualified person, while supplies last.



Social Media Ads

 **Opportunities for Youth** Sponsored · 🌐 ...

Opportunities for Youth is offering 93 Full-Ride Scholarships to the Manufacturing Training Program at GateWay Community College!



<https://oppforyouth.org/manufact...>
Free Certification Program
Learn how you can take advanta... [LEARN MORE](#)

Like Comment Share

 **Opportunities for Youth** Sponsored · 🌐 ...

Arizona at Work: Maricopa County is offering 96 full ride scholarships to Phoenix Metro young adults ages 17-24, for GateWay Community College's 14-week Manufacturing Training Program.

Enroll today for classes starting 9/10/18.



OPPFORYOUTH.ORG
Jump Start Your Career in Manufacturing! [LEARN MORE](#)

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Like Comment Share

