



**WORKFORCE  
DEVELOPMENT  
INSTITUTE**

# Congressman Reed Manufacturing Summit

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Successful “Bootcamp” and pre-apprenticeship program models.



# Project Phoenix/MAPP – Rochester, NY

- With financial support, guidance, and connections from WDI, the Rochester Multi-Craft Apprenticeship Preparation Program (MAPP) had close to a perfect placement rate with the Building and Construction Trades. The addition of an innovative feeder program helped to ensure that candidates chosen were right for the program.
- Individuals from underserved communities were recruited and screened for interest and ability in the trades. Those who passed the screening, immediately began working alongside union journeyworkers on lower level tasks associated with rehabbing blighted city properties—a program called Project Phoenix. Once program participants showed aptitude on Project Phoenix, they were formally admitted into MAPP.
- Program Director, Kereem Berry, reported that “the program is life-changing because it opens the door to a lifelong career to which graduates might otherwise not have access”. Berry notes that all of the graduates come from backgrounds that are under-represented in the Rochester construction industry—a statistic his program is trying to change. Applicants to the program often lack basic math and reading skills, and so the MAPP covers a number of topics these individuals will need—including construction math, soft skills, reading comprehension, use of tools, and basics of the construction industry. Berry came up with the idea of Project Phoenix as an “extended interview” mechanism that also serves as a win-win for the city and the trainees. The properties are rehabbed and the candidates get a chance to show what they can do.
- The program is typically a 12-week program, but was so successful during this past year that some of the students were being recruited by the Trades before the 12 week period completed. A July graduation celebrated 14 graduates and 13 placements (the 14th individual opted out) with four at the Bricklayers, two with the IBEW, two with the Glaziers, two with the Carpenters, one with the Pipefitters, one with the Ironworkers, and one with the Laborers. Ongoing support and mentoring is also provided.



10/8/2019

# Isaac University – Rochester, NY

- Started in 1998
- Revamped and full-time instructor brought on 2002-2003
- Nationally accredited program through PARHA. Only HVAC Contractor in US with accreditation, the remainder are colleges, tech and trade schools
- 22 courses offered
 

Basic Electric	Trade Math	Industry Codes	Gas Heat I
Gas Heat II	A/C I	A/C II	Heat Pumps
Hydronics	Oil Heat	Air Distribution	Commercial Controls
Refrigeration	Service Procedures	Service Procedures	Indoor Air Quality
Advanced Electricity	Commercial Systems	Refrigeration 2	Refrigeration 3
Install Procedures	Home Performance		
- Each class is approximately 30 hours in length
- Classes are conducted as either
  - 2-hour sessions, one day per week for 15 consecutive weeks (7am-9am)
  - 6 hours sessions for 5 consecutive weeks (used when students travel from distant offices)
- For Isaac employees training is all paid at regular wages
- Two fulltime instructors
- One administrator
- Includes classroom theory, hands-on lab with 50+ pieces of operating equipment
- With the exception of a \$7500 grant from EDI to purchase a smart board, the cost has been carried fully by Isaac and the current cost is in excess of \$1mm per year.
- The program was developed to meet the growing demand for our business to grow and to meet the needs of our clients. There are shortages of labor in all industries, but the learning curve to be a competent residential technician is 2-3 years and that grows to 4-6 years for commercial. We are preparing to expand the program further and look to see a new Isaac University in the very near future.

- Started Bootcamp I July 2015
- Bootcamp XIII started July 2019
- 480-hour program (40 hrs per week x 12 weeks)
- Students are paid hourly while learning and developing a career. Up until now this has been paid 100% by Isaac at a cost of about \$6,500 per student
- Classroom theory    Hands-on lab    Field training with Sr Trainers
- Basic electrical, trade math, gas heat, air conditioning and soft skills are included in the program
- Attendance is tracked
- Tests and quizzes are administered weekly and there are minimum passing grades
- OSHA 10 hours course is required before beginning the program through an on-line course.
- Upon successful completion of the program students begin a career in one of Isaacs groups which include residential service, residential install, commercial service, commercial install home performance, plumbing, electrical, fabrication.
- To date info
  - 140 started the program
  - 82 have graduated (68% graduation rate)
  - 54 remain with the company (74% retention rate)
  - Avg wage of Bootcamp 1 (July 2015) graduates \$21.50/ HR
  - Avg wage of Bootcamp 4 (Feb 2017) graduates \$17.20/ HR
- The Bootcamp program was started to further meet the need of Isaac and to fill the skilled trades gap. Candidates typically have no HVAC experience and limited similar job experience; they are taught everything they need to begin a professional career in HVACR. This program has introduced hundreds of folks to the potential for careers in HVAC, approximately 1300 people have applied for or shown interest in the program. Just like Isaac University, this program has been funded fully by Isaac with the exception of \$15,000. To date cost exceeds \$1mm in wages, educators' salaries, field training and materials.



10/8/2019

# Optimax Apprenticeship model and summer high school bootcamp, Ontario, NY

## HS Bootcamp Model:

- High school recruiting program modeled after Siemens program uses to recruit for their apprenticeship program in North Carolina.
- End of our second year - will expand the program further over the next school year.
- Via school to work contacts at 16 school districts, training proposal delivered and good “buy-in” from several schools
- School visits netted 12-150(per school) students to share opportunity
- Training pathway to employment for students that weren’t sure about their plans after graduation
- Parent/student orientation/tour event at Optimax where interested students invited to sign up for a 3 day orientation during school breaks in February or April
- The orientation program consists of 2 hours of class room trainings each day, job shadowing in several work centers, and an interview
- 17 students attended the orientation programs. Based on that, we offered 6 week paid internships to 12 students, which started in July. 10 students chose to accept the internships, and if they do well, will be offered full time employment at the end of the program

## Apprenticeship Model:

- Registered Precision Optics Manufacturing Technician apprenticeship program was started in 2016
- 3 year program OJT and related instruction
- Apprentices work in every aspect of the company with a major focus on the manufacturing and quality areas. Optimax has had an in house training program for many years, and we are very effective at getting people to a productive level fairly quickly. Production takes place in 31 manufacturing cells, several using unique methods and technologies. Our training program can get someone up to speed in a specific cell, but their awareness of other cells will be very limited. The apprenticeship was designed to broaden awareness and skill sets, to provide us with more versatile journey workers. We currently have 10 apprentices in the program, with a new apprentice starting each quarter.



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# Contact information:

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Optimax Summer HS bootcamp – Jim VanKowenbergh: (585) 265-1020



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**THANK YOU!**  
Any Questions?

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