

THE
UNIVERSITY
OF RHODE ISLAND

REAL JOBS RHODE ISLAND CASE STUDY:

Rhode Island Manufacturing Growth Collaborative

Prepared for:

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Rhode Island Manufacturing Growth Collaborative

Real Jobs Rhode Island (RJRI)

In 2015, The Rhode Island Department of Labor and Training (DLT) awarded funding to workforce development collaborations throughout the state. Funding was provided through development grants to create sector-based partnerships and create a plan to provide workforce training aimed at sector needs. Implementation funding was then provided for these partnerships to develop training materials and train workers in Rhode Island in targeted industries including healthcare, technology, marine trades, and the arts. Sector partnerships were developed through public-private partnerships that included industry, workforce intermediaries, and educational institutions to address the economic needs of the state.

I. Sector Need

The RI Manufacturing Growth Collaborative (RIMGC) grew from a partnership between the RI Research Foundation/Polaris Manufacturing Extension Partnership (MEP) and the Rhode Island Manufacturing Association (RIMA) through their participation on the Governor's Workforce Board's Manufacturing Industry Partnership. They examined Rhode Island's manufacturing industry in hopes of developing industry workforce development efforts. Although no such efforts were established through the Manufacturing Industry Partnership, the RI Research Foundation/Polaris MEP and RIMA continued working through RIMGC to establish one. These partners used the insights drawn from the Manufacturing Industry Partnership, along with data generated by the Rhode Island Department of Labor and Training, the National Association of Manufacturers, the National Institute of Standards and Technology Manufacturing Extension Partnership, and their own surveys and knowledge of the industry to find that:

- Manufacturing is a diverse industry with a substantial presence in Rhode Island.
 - The industry provides 42,000 jobs to Rhode Islanders, and, according to RIMGC, these jobs offer an average wage as high as 25 percent more than the average wage of other private sector jobs.
- The industry workforce is rapidly aging and retiring.
 - An aging and retiring workforce means that industry knowledge needs to be passed on from current retiring manufacturing workers to new workers.
- Large percentages of manufacturing employees speak English as a second language, complicating training and recruitment efforts.
- New and potential employees share similar skills gaps, notably:
 - Performing math and reading skills above a middle school level, and understanding plant safety, quality control, and the good manufacturing practices of the manufacturing environment.
- The obstacles to employment for new and potential employees include:

- A lack of transportation, computer skills, writing skills, English speaking skills, job readiness skills, and the ability to complete employment and benefit forms.
- The ability to pass a drug test when employers require clean drug tests before hiring.
- The industry lacks candidates who are qualified and willing to fill low- and non-skilled positions in the manufacturing industry.
 - Identifying, recruiting, and hiring candidates has become a burden for industry employers.

II. Grant History

The Rhode Island Research Foundation Polaris MEP (Polaris) is an independent group whose mission is to improve the manufacturing industry in Rhode Island by making companies stronger, more competitive, and more profitable. As a Manufacturing Extension Partnership (MEP), the group is federally sponsored and supports manufacturers with assistance in developing and executing efficiency programs, lean manufacturing quality systems, and facility layouts. Prior to forming RIMGC, the group worked with RIMA on the Governor's Workforce Board's Manufacturing Industry Partnership. As part of this partnership, Polaris and RIMA first heard about the RJRI program from DLT Director Scott Jensen and agreed to apply for a planning grant to form a RJRI partnership. The new RIMGC used the planning grant to research skills gaps and employer needs in the industry, and to identify the Manufacturing Boot Camp model as RIMGC's solution to these needs.

III. Goals and Objectives

In general, the goals of RIMGC were to create industry-led partnerships to advance the skills of the state's workforce, grow the state's economy, and increase sustainable employment for working families. More specifically, RIMGC wanted to increase the employability of under- or unemployed populations and prepare them for careers in the manufacturing industry. To achieve this goal, RIMGC planned to develop a basic skills, job training, and assessment center that provided employers in the manufacturing industry with pre-screened and pre-trained employees who were identified for their commitment to long-term success and employment in the industry.

IV. Partnerships

RIMGC was formed by Polaris and RIMA. Both organizations had extensive experience working with employers in the manufacturing industry, and relied on those prior partnerships to form RIMGC.

Table 1: Partnership Members and Responsibilities

<p>University of Rhode Island Research Foundation dba Polaris MEP</p>	<p>Lead Applicant: Responsible for providing the day-to-day grant management and developing a project plan; scheduling, budgeting, and describing team responsibilities; utilizing partners to ensure best use of training resources; establishing program objectives and identifying industry needs.</p>
<p>University of Rhode Island</p>	<p>Responsible for assisting with Curriculum Development.</p>
<p>Rhode Island Manufacturers Association</p>	<p>Industry partner involved in the planning and facilitation of manufacturing “bootcamps.”</p>
<p>Rhode Island Marine Trades Association</p>	<p>Responsible for providing input and ideas on program curriculum and implementation; interviewing applicable graduates for positions; combining recruitment and referral efforts from its own workforce development programs with this partnership; providing information and consultation; and committing to act as a training provider when applicable.</p>
<p>Electric Boat, ChemArt Company, Yushin America, Pilgrim Screw, Taylor Box Company, Hexagon Metrology, Admiral Packaging, Guill Tool</p>	<p>Employers: Responsible for bringing hiring demands to RIMGC so that “bootcamp” training could be tailored toward their needs; communicating the value of the program to other companies in the state to increase program exposure; providing input and ideas on program curriculum and implementation; interviewing applicable graduates for positions.</p>
<p>IYRS, We Make RI</p>	<p>Responsible for assisting with the planning and facilitation of bootcamps, and supporting the partnership with programs and resources as requested.</p>

V. Implementation Activities and Processes

RIMGC executed a manufacturing “bootcamp” training program to fulfill its training goals, and targeted under- or unemployed individuals and low income populations, as well as populations that traditionally face barriers to employment. To recruit within these populations, RIMGC utilized the RI DLT, the Business Workforce Center, and NetWORKri to post flyers and to seek recruits for meeting the manufacturing industry’s needs. RIMGC also engaged with local workforce investment boards, local economic development organizations, local unemployment offices, local veterans’ groups, local recruiters and staffing agencies, as well as schools and colleges to recruit for the program. The recruits that were targeted for training had household incomes below the federal poverty line and met at least one of the following characteristics: a single parent; a transient living situation; a criminal record; a minimal support system; receiving federal/state assistance; a former foster child; lacking a high school diploma or GED; or having no training or education beyond high school. These factors were self-reported by participants during the screening process. However, RIMGC generally targeted the unemployed population and did not exclude potential recruits if they did not fit into any of these categories. After potential recruits were identified, they underwent a screening process that established if the candidate was an adult and eligible to work in the US. Recruits were also asked to complete a registration form, pass a drug screening test, submit to a background check, and complete a basic aptitude test for skills in basic math, English, and soft skill competencies. Candidates were also interviewed to test their interest, willingness to participate, capability, and to identify any possible barriers to employment.

The program, modeled after the Maryland MEP Manufacturing Bootcamp, began in July 2016 and lasted for a period of six weeks. RIMGC ran three bootcamp sessions once every fourth month, with each session recruiting and training 15 to 20 participants. Each session was initiated and delivered by RIMGC in collaboration with the hiring manufacturing company that committed to interviewing program graduates upon completion of the training. For each bootcamp, RIMGC learned from partner companies whether new positions would be opening. RIMGC then recruited and offered a version of their training program modified to fit the specific needs of the company. Program graduates were then hired to fill the open positions at the company. As part of this implementation process, RIMGC planned to identify training providers as part of the recruitment phase. For the initial sessions, We Make RI delivered the training programs. The curriculum and implementation of the training program began during the first two sessions as “pilot” programs that were adjusted on the basis of feedback from employers, candidates, and workforce partners.

Table 2. Training Module Overview

Module	Curriculum Delivered
Program Overview	Set program expectations; provided screening, assessments, and program overview.
Basic Employability and Workforce Skills	Built the soft skills of candidates by focusing on basic job skills, reading and comprehension, math, and computer skills.
Basic Manufacturing Skills	Provided a baseline of knowledge about the manufacturing environment, including safety, basic manufacturing skills, “lean manufacturing” strategies, and quality.
Maintenance	Taught participants about the need for basic maintenance and provided instruction in how to complete basic maintenance.
Problem Solving and Teams	Taught strategies for working in teams, conducting basic problem solving, and basic communication skills.
On-the-Job Experience	Provided various hands-on training exercises, plant tours, and real life work experiences.

RIMGC focused primarily on training high quality workers rather than training a high number of graduates and, therefore, expected that nearly 50 percent of trainees would not complete training. Successful program graduates received a certificate of completion from Polaris. Once the participants completed the established modules, they were matched with an employer to complete on-the-job training. This placement allowed participants to improve their understanding of the work environment and allowed the employer to become familiar with the participant. During the placement process until being fully employed by the company, participants received monthly coaching for up to six months to ensure that they were meeting employer needs and expectations.

If participants were particularly skilled or successful, they were invited to continue training in advanced program modules, such as welding and forklift operation. As a result, these participants had to forgo income for a longer time, but were well-trained to apply for and receive higher paying jobs once they completed training.

Table 3: Performance Metrics for All Training Programs

IG-05 Rhode Island Manufacturing Growth Collaborative (Polaris MEP)	Start Date of First Cohort	Proposed End Date for All Cohorts	Target Enrollment	Enrolled	Target Completed	Completed
Recruitment, Training, and Employment						
Manufacturing Bootcamp - (3 cohorts) (Job Seekers)	4/11/16	12/16/16	48	16	48	16
Total Participants Recruited for training					60	16
Total Participants placed in training-related employment					48	10
Total Participants retained in training-related employment after six months					TBD	Not tracked
Other Objectives						
Baseline Assessment of Skills and Capabilities					TBD	16
Starting salary and benefit information for candidates placed in employment					TBD	10
Employee evaluation of program					TBD	Not Conducted
Total Participants to earn an industry-recognized credential					TBD	14
Employer evaluation/satisfaction of program					TBD	Not Conducted

VI. Achievements

Partnerships

RIMGC did not discuss any achievements with partnerships.

Recruitment

Employer engagement

Several manufacturing companies were initially hesitant to work with RIMGC due to concerns over cost and program organization, but after the program began, the industry was impressed by the quality of the training and the competency of program graduates. Because of these positive outcomes, companies began to contribute to the program and to hire program graduates in their companies.

Trainee Barriers

Accessible transportation

The bootcamp training location was easily accessible by public transportation, which made it easy for program participants to travel to training even if they did not have access to personal transportation.

Training

RIMGC did not discuss any achievements with training.

Transition from Training to Employment

High placement rate

Despite confusion arising between RIMGC and partner corporations about the training skills needed for bootcamp participants, many training participants who completed training were placed with a partner manufacturing company at the conclusion of the program. A small number of program graduates were not placed in jobs after training, but RIMGC attributes this to personal issues with the individual graduates, such as a lack of desire to actually work in the manufacturing industry or family issues.

Other

Collaboration within the industry

Numerous workforce development programs are currently underway in the manufacturing industry, which has caused manufacturing companies to be overwhelmed by the number of programs that are offered by different partnerships. RIMGC overcame some of these challenges by working with the lead organizations of partnerships like the Rhode Island Marine Trades Association (RIMTA) to learn about RIMTA's partnerships so that RIMGC could present all training options to industry employers.

VII. Challenges

Partnerships

Engaging community groups

RIMGC hoped to reach out to community groups and programs to enhance recruitment, but this did not always make successful connections. In particular, RIMGC struggled to engage with Progreso Latino and Skills for Rhode Island's Future for recruitment. RIMGC struggled with recruitment partners primarily because it did not have the funds or the capacity to fully engage with recruitment partners. In future years, RIMGC included more funds and dedicated more time to recruitment, increasing its ability to connect and engage with recruitment partners.

Recruitment

Engaging with veterans

RIMGC was not able to engage with the state veteran population to the extent planned. The veterans' group RIMGC worked with initially underwent a shift in leadership during the implementation period, making it difficult for RIMGC to work with them.

Difficulty with recruitment

Overall recruitment was the biggest challenge for the grantee. RIMGC struggled to find people who were willing to attend training and seriously follow through with employment in the manufacturing industry. RIMGC attributes at least some of this lack of interest to a better job market and to the lowered unemployment rate. To address this issue, RIMGC worked with new and additional recruitment partners, like community groups, and utilized DLT One-Stops. However, RIMGC only recruited 48 out of 60 planned participants for the training program.

Challenges of working in a new state environment

RIMGC struggled initially to coordinate a training partner who came from outside of the state. We Make RI was an organization that had operated elsewhere outside of Rhode Island, and had to be acclimated to the Rhode Island economic environment while providing training.

Difficulties with Outreach

RIMGC struggled to identify recruits to fill training slots without financial incentives in place, yet other industries have recognized that filling industry hiring needs requires a comprehensive plan for outreach that includes describing the positive benefits of a career in the industry. RIMGC might consider improving its outreach to under- or unemployed workers so that they are aware of opportunities in better paying manufacturing jobs. If low-paid incumbent workers are given these opportunities for training in an industry with a higher level of pay, more people might sign up for the training. In addition, developing a training for incumbent workers so that they can fill higher-level positions that require additional skills, might present opportunities for unemployed workers to fill the entry-level positions that are left by incumbent workers to fill the higher-level positions. Once these entry-level positions are filled, the newly

hired workers will later have the same opportunities to improve their training as the workers before them, thus creating a cycle of opportunities for both under- and unemployed workers.

Trainee Barriers

Transportation

Several bootcamp participants could not arrange transportation to training sessions and job placements. To address this issue, RIMGC worked with community groups to arrange group transportation, and worked individually with participants to identify public transportation routes to training.

Training

RIMGC did not discuss any challenges with training.

Transition from Training to Employment

Miscommunication about training for jobs skills

Despite initial agreements to hire program graduates, many partner employers did not hire graduates at the end of training. This was by virtue of miscommunication between RIMGC and the employers. Participating employers were seeking technically trained employees while RIMGC was training participants to be entry-level employees with basic skills training. This miscommunication was resolved, however, and partner employees hired some program graduates after later bootcamp sessions.

VIII. Sustainability

Due to the industry's close partnership and commitment to RIMGC's training program, RIMGC has confidence that the Manufacturing Bootcamp will be sustainable without state funding. To fund the program, RIMGC is planning to ask employee partners to pay for a bootcamp tailored to each company's needs. RIMGC hopes this will encourage companies to remain directly involved in the creation and implementation of the bootcamp, while also hiring program graduates and funding future bootcamp opportunities.

IX. Lessons Learned

The following lessons were learned by RMGP in executing their training program:

- Future programs should engage partners from a broader sector of the manufacturing industry, like textile and device employers, to broaden the applicability of the training program.
- After providing compensation for program participants during the 2017 implementation phase, RIMGC saw a marked improvement in the success of their recruitment efforts and quality of program participants from the 2016 implementation phase which did not include a stipend.

X. Best Practices

The following best practices were utilized by RIMGC:

- Offer bootcamps to only manufacturing companies that were hiring entry-level and low-skilled positions to minimize the amount of time spent without pay while transitioning to a career in the manufacturing industry.
- Hold trainings in a location easily accessible by public transportation.
- Prioritize the quality of trainees rather than the number of trainees, and focus on graduating participants who are skilled and knowledgeable.

XI. Recommendations

Based on the successes and challenges of RIMGC, the following recommendations are suggested:

- Develop a comprehensive recruitment strategy for under- or unemployed populations.
- Develop a training plan for entry-level incumbent workers so that they can fill higher-level positions that require additional skills and to create a career ladder within the sector.