

DON'T JUST TALK ABOUT MANUFACTURING...
EXPERIENCE IT!



Be a Part of Something Amazing!

***Sponsor the next generation of
workforce-ready graduates.***

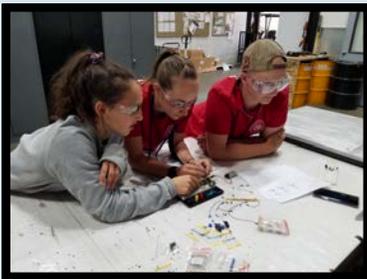
www.ManufacturingInstitute.net

WELCOME...

We saw a need...and did something about it...

We talked about the workforce problem for years, but the challenge was bigger than any one of us. It required a collective effort from ALL of us in manufacturing and the trades, education, and the community. PMI started with a handful of partners who normally compete for the same talent. By taking a “coopetition” approach, we know it will take all of us to solve this problem.

Today, PMI relies on this continued partnership. What started off as an experiment has become a foundational part of the community. Now as a non-profit, the Institute relies on your ongoing support to provide programs to help students explore and experience careers in manufacturing and the trades.



Founded in 2019 to connect students with real-world manufacturing and skilled trades experiences, PMI has grown from a 20-student pilot into programs serving hundreds of students through hands-on learning.

Each year, the program has grown to include more locations, more programs, more sponsors, and more participants. As funding grows, so does our ability to help kids explore careers.

Our **High School program** immerses students into the world of manufacturing and trades. Our 3-week intensive Institute forms teams where participants design, manufacture, and sell products to real customers. We teach safety, measurements, design, hand tools, power tools, processes, and more! They also visit several employer sites, work with professionals, weld, machine, CAD, and 3D print. Even more importantly, they learn teamwork, communication, problem solving, leadership, and personal growth.



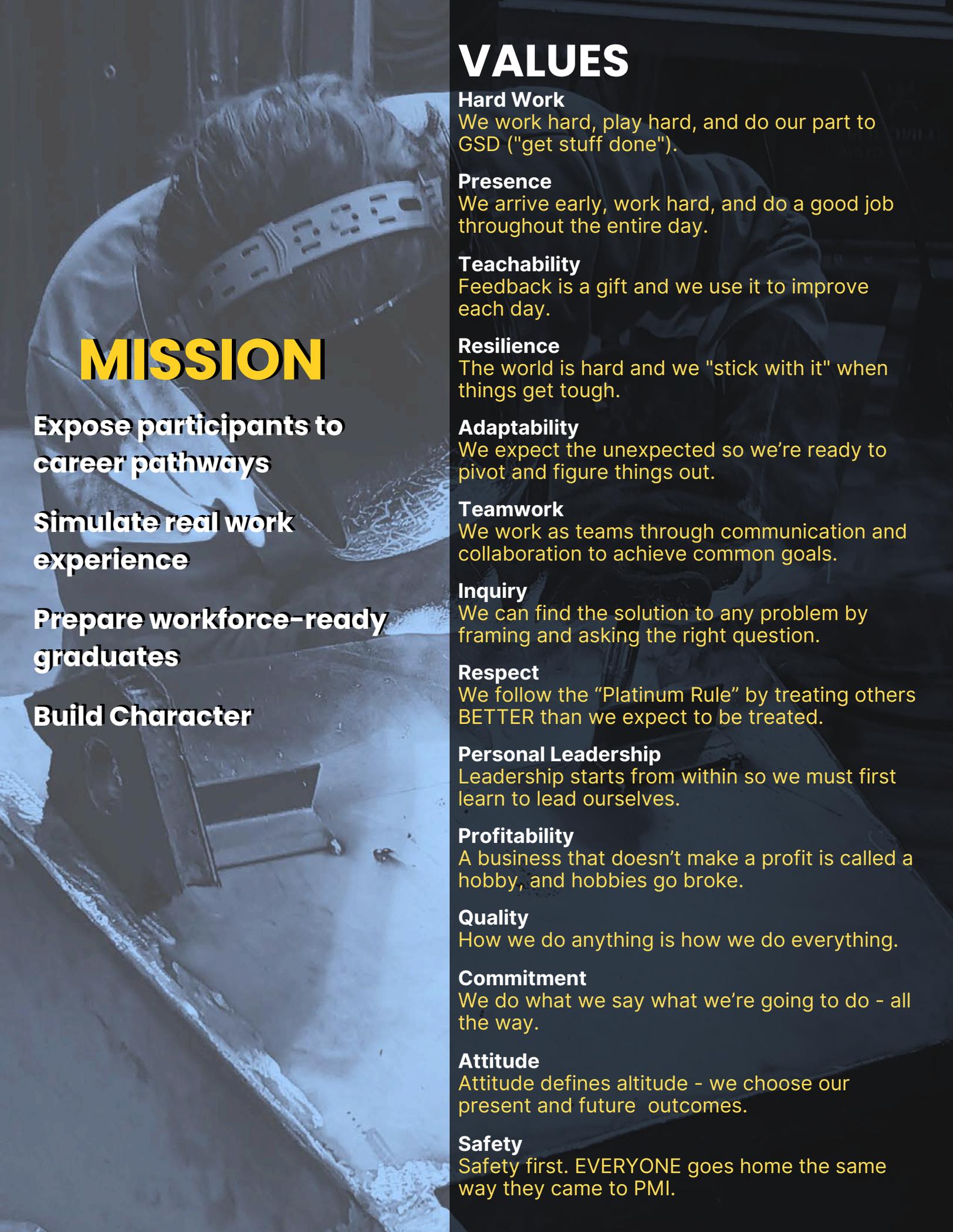
We also offer a 1-week intensive certificate for high schoolers to introduce them to the trades. This program accelerates learning as they rapidly experience design, building, prototyping, tooling, and skills development. It's a great way to learn a lot in a short time..



We launched our one-week **middle school program**, Tool Titans Academy, as a pilot to introduce kids to hand tools, power tools, and building things. It turned out to be a wild success! We now offer several weeks of the program as a way to create interest and fill a pipeline for kids to enroll into CTE programs at school.

The new **grade school** program, KidsWorx, offers 4th and 5th grade students the opportunity to try out design, construction, modeling, and building. We use the same principles of construction and manufacturing, but use age appropriate tools in a “cardboard camp” approach to generate interest for those inclined to pursue hands-on approaches.





MISSION

**Expose participants to
career pathways**

**Simulate real work
experience**

**Prepare workforce-ready
graduates**

Build Character

VALUES

Hard Work

We work hard, play hard, and do our part to GSD ("get stuff done").

Presence

We arrive early, work hard, and do a good job throughout the entire day.

Teachability

Feedback is a gift and we use it to improve each day.

Resilience

The world is hard and we "stick with it" when things get tough.

Adaptability

We expect the unexpected so we're ready to pivot and figure things out.

Teamwork

We work as teams through communication and collaboration to achieve common goals.

Inquiry

We can find the solution to any problem by framing and asking the right question.

Respect

We follow the "Platinum Rule" by treating others BETTER than we expect to be treated.

Personal Leadership

Leadership starts from within so we must first learn to lead ourselves.

Profitability

A business that doesn't make a profit is called a hobby, and hobbies go broke.

Quality

How we do anything is how we do everything.

Commitment

We do what we say what we're going to do - all the way.

Attitude

Attitude defines altitude - we choose our present and future outcomes.

Safety

Safety first. EVERYONE goes home the same way they came to PMI.

MEETING THE NEEDS...

2.1 Million Manufacturing Jobs

Can go unfilled by 2030 due to lack of skilled labor

Local pressures vary due to availability, but many companies continue to miss production targets, turn work away, or reduce revenue expectations due to shrinking talent availability. There are simply fewer qualified workers available today.

Unfilled Manufacturing Jobs

622,000 unfilled jobs...

Employers have slowed hiring - not because they don't need workers, but because they cannot find them. They have adopted new strategies like automation and streamlining. These still require upskilled talent in new and current employees. Employers will still require new ways to find and develop employees.

400,000 Welders Needed

By late 2020's

The economy ebbs and flows, but the overall demand for skilled labor still remains. As retirements continue, there are not enough new skilled employees to fill the roles. We must find and develop our next generation of qualified workers.

CNC Machinists

Increased difficulty finding...

Skilled workers will become increasingly scarce. Employers must engage in finding, developing, and engaging the next generation of skilled talent.

Entry Level Production Operators

Increasingly Hard to Find

Increased technology raises the bar for the minimum requirements for "entry level" positions. Finding new ways to generate interest in careers, developing essential skills, and supporting career pathways is essential for current and future talent pipelines.



WHAT IS THE **INSTITUTE?**

The Production & Manufacturing Institute (PMI) is a hands-on, employer-connected program that introduces students to high-demand careers in manufacturing and the skilled trades. Through partnerships with business, schools, and community supporters, students learn in a live-work setting—building real skills, real confidence, and real career direction.

Real Experience

PMI mirrors a modern production environment. Students work in teams to plan, build, and deliver products for real customers—managing materials, solving problems, and meeting quality expectations along the way.

Real Products

Students don't complete "projects." They produce items that are sold. By taking a product from concept to customer, they learn how production, pricing, quality, and business decisions connect—skills that transfer to any career path.

Real Workplace

Students operate with deadlines, quotas, and clear expectations—supported by coaches and supervisors who provide guidance and direct feedback. They learn what it means to show up, contribute, and deliver as a team.

Real Learning

Students tour local manufacturers and learn from industry professionals to see the range of workplaces, roles, and pathways available. PMI broadens awareness and helps students identify where they fit—and what it takes to succeed.

Students leave with workplace behaviors employers value: reliability, communication, teamwork, and problem-solving



WHAT WE DO OUR PROGRAMS

***Not Just
Summer!***



PMI Summer Institute: Flagship Program (3 Weeks)

A three-week, high-expectations immersion where students experience a real manufacturing cycle. In product teams, they design, build, and sell to real customers while meeting quality and production goals. Students build technical confidence (tools, processes, safety) and professional skills (teamwork, problem-solving, communication), reinforced through manufacturer tours and industry leader engagement.



PMI Certificate: Foundations

A fast-paced, one-week starter credential for students exploring manufacturing and trades. Students learn safety and core tools, CAD/3D printing, design and prototyping, with exposure to welding and machining—plus teamwork and industry insights. Graduates earn a certificate of completion that signals initiative and readiness.



Tool Titans Academy

A one-week, hands-on introduction to the trades for grades 6–8. Students learn shop safety and basic hand and power tools, then build take-home projects while practicing teamwork, communication, and problem-solving.



KidsWorx

A two-day, high-energy introduction for grades 4–5 that sparks curiosity through safe, age-appropriate making. Students learn basic tool safety, prototype with cardboard modeling tools, and build simple wood projects—fun, confidence-building, and memorable.



Welding Tent

We travel to career fairs, trades nights, and other events to introduce welding to students and adults. It's one thing to talk about welding, but another thing to suit up in welding gear, put on a hood, and try out MIG welding for yourself. We give kids and adults the chance to experience it first hand.



SkillsUSA

PMI sponsors regional and state welding programs in Washington to support and promote welding and trades careers. We work with students, teachers, and schools around the region to support students interested in experiencing new career paths.



Mobile Shop

Our “mobile shop” brings the woodshop experience to kids and adults to experience designing, building, and manufacturing wherever they are. We attend classrooms, schools, workshops and events to expose students and promote the trades - on site!

WE DELIVER RESULTS

The talent shortage continues. The number coming into the workforce will continue to be fewer than those leaving due to retirements and other changes. Employers need more and better-qualified employees in ALL positions. Employers in ALL industries require knowledge, skills and abilities that are different than in the past.



WHAT EMPLOYERS NEED

- Interpersonal communications
- Teamwork
- Planning
- Goal setting
- Leadership
- Time management
- Problem-solving
- Creative-thinking
- Crisis management
- Group-based learning
- Interpersonal collaboration
- Team-based work dynamics
- Solution-oriented approach
- Respect-driven work environment
- Professional growth
- Personal development

WHAT WE TEACH

- Intro to design
- Measurements
- Materials
- Small hand tools
- Shop equipment (saws, drill press, etc.)
- Production planning
- Quality assurance
- Intro to welding
- Intro to machining
- Intro to product assembly
- Intro to product finishing
- Intro to quality management
- Intro to print reading
- Essentials of construction



CAREER READINESS

- Preparing for a job
- Arriving to work on time
- Building a strong work ethic
- Pride in quality work
- How to find a career path
- Career interest search
- Post high-school preparations
- Preparing for a job or career
- Post-high school training or education
- Resume writing & cover letters
- Interviewing skills
- LinkedIn and other social media skills
- Exclusive connections with Spokane Community College & apprenticeships
- Career path readiness exercises

BUSINESS SKILLS

- Intro to business plans
- Intro to market research
- Intro to product design
- Intro to competitive analysis
- Intro to customer analysis
- Intro to marketing
- Business analysis
- Product sales and promotion
- Customer service
- Product pricing
- Supply and demand
- Organizational communications
- Inter-departmental collaboration
- Intro to operations management

WHAT WE DELIVER

MEET OUR ALUMNI



Meet Dana

CNC Machinist Operator, MacKay Manufacturing

Dana was part of the Institute's early programs. Never having been exposed to the trades, she learned about machining and enrolled in Spokane Community College's 2-year Machinist program. Today, she works full time for one of our founding sponsors, MacKay Manufacturing, as a CNC Machinist Operator.

Check out her story on our website: www.manufacturinginstitute.net



Meet Bryce

Welder, Wagstaff, Inc.

Bryce participated in our first cohort in 2019. He became interested in welding, enrolled in the college's welding program as a result, and joined Wagstaff as a professional welder.

View his story on our website: www.manufacturinginstitute.net

Meet Breckin

Welder + Welding Engineer

Breckin was a part of the 2021 cohort. He gained an appreciation for building, tools, and fabrication. As a result, he earned his credentials and certificate in Welding and worked professionally for 3 years before returning to college to work on his Welding Engineer degree. He is now pursuing an internship prior to his senior year as he nears graduation.



Meet Colby

Presidential Scholar, Engineering

Colby is finishing his bachelor's degree in mechanical engineering from Montana State University. He also joined PMI in 2023 to explore engineering and apply practical, hands-on learning that is critical in engineering practices. Now that he is finishing his degree, he has both the engineering know-how and the practical capability to design and build anything.



Meet Emma

Intern, MacKay Manufacturing

Emma joined the 2024 cohort as part of the Newport program. She quickly learned about processes, tools, and machining. As she paid close attention and asked questions on the tours, she caught the attention of one employer. Emma followed-up and started working after school as a Junior in high school. She has continued to learn, perform, and prepare for her career, while showing others that it's never too early to start on their career path.

WHAT WE'RE ASKING OUR REQUEST

Investment

We are asking for your investment in your future talent pipeline. After years of success, we know this model of ongoing partnership works. Your support will allow us to sustain and grow our efforts to expose students to manufacturing and the trades, create interest, develop talent, and prepare workforce-ready graduates.

It takes financial commitment - and our request.

ROI

An ROI on an Investment like this is often challenging to measure. We recognize that an investment now will pay huge dividends in the very near future.

When filling vacancies, it costs 50% or more of an employee's first year salary and benefits to replace someone. For even a basic welder making \$25/hour with benefits, that's about \$35,000 to replace one person. When multiplied by your annual turnover, it gets very costly very quickly.

Your investment today to grow your future talent pipeline can cost far less with much better results.

Stages

Though PMI has operated as an "event" for years, we have big plans and huge potential as an independent non-profit to leverage partnerships and outcomes. We recognize the need to first grow and strengthen the current programs, but also look forward to expanding PMI's influence to make a bigger difference.

STAGE I: Grow PMI

Our first goal is to **fund and grow PMI's core programs**. The 2026 program will:

- Expand High School programs that double attendance and participating schools.
- Offer .5 CTE credit for Institute completion (through NewTech Skills Center).
- Triple the number of Middle School programs (from 2 to 6).
- Launch our new Grade School program.

We are planning for over 200 students this year alone! Additionally, PMI...

- Sponsors SkillsUSA Welding regionally and will sponsor State SkillsUSA this spring.
- Attends career days, trade nights, and other events to promote manufacturing and the trades to students.
- Led middle and grade school workshops to help kids learn to use tools and build projects.

...and much more! We plan to integrate year-round programming as resources and funding allow.

STAGE II: Direct Career Preparation

PMI is in a unique position to **support students, educators, and employers** in facilitating:

- Student placement in work-based learning opportunities.
- Simulating workplace experiences aligned with high school programs.
- Training and preparation for career-oriented certifications and credentials.

PMI can leverage its relationships, connections, and resources to expand more hands-on, real world experiences that accelerate workplace ready graduates.

STAGE III: Location

Our growth goal is a **location** to facilitate additional training opportunities for youth and adults. A workforce training center can align with and support CTE programs, support employer in-house programs, enhance capacity to develop workers, and expand relevant resources to deliver rapid skills deployment.

MAKE A DIFFERENCE GIVING OPPORTUNITIES

The Institute relies on its partners to fund its efforts. Our ability to develop the talent pipeline relies on the ability to raise the funds needed to make this a reality. We hope you are inspired by our vision and will join our community of donors committed to ensuring the future of the industry!

Financial Support

Donations

Your gift makes the most immediate impact and allows you to receive full tax benefits to the extent allowed by law. Direct donations provide the flexibility to cover our costs and allow you to maximize the power of your gift.

Multi-Year Pledge

We encourage you to consider a multi-year pledge to optimize your gift. It also supports the Institute's ability to plan ahead for year-round programs.

Grants

If your organization maintains a foundation, or your family foundation seeks an investment opportunity, PMI offers an ideal option to support.

In Kind Donations

Materials

The Institute consumes a LOT of materials for projects and learning. Lumber, metal, and consumables are just a few. We also provide goods that may be considered promotional to some sponsors, such as backpacks, insulated water bottles, notebooks, pens, hats, and more. A valuable donation such as this helps offset our direct expenditures.

New Equipment

PMI uses several hand tools, handheld power tools, table top tools, and other items that may become damaged over time. Companies may be able to purchase these at a lower price, or gain assistance from suppliers to help provide them to the program.

Used Equipment

In some cases, PMI may be able to use equipment that is in good shape. MIG welders in good condition that are ready for upgrade, a covered utility trailer, or similar equipment may be useful to PMI or a partner school.

Volunteer

Mentors, Teachers

PMI counts on several professionals to help with presentations in class, mentoring teams, helping with projects, assisting in the classroom, and visiting with students. Several opportunities to volunteer exist for skilled workers who are good with kids whose time can be donated to the Institute.

Board, Advisory Council

PMI is forming its inaugural board of directors and an advisory council this spring. Sponsors are invited to express interest in participating and assisting.



BE PART OF THE SOLUTION WHY WE PARTNER



Wagstaff, Inc.

Barb Parkes, Board of Directors/Owner

Wagstaff recognizes the value of developing our next generation. We know students need multiple pathways, and we are committed to introducing them to the wonderful career opportunities available in manufacturing. Our company's future depends on it just as much as our community. We're committed to working together with our partners for our future success.



MacKay Manufacturing

Katie MacKay, President

The challenges presented by today's workforce shortage are not new. Employers must make the investment to develop interest and skills early to drive qualified employees to careers in the trades. MacKay recognizes the Institute as a bridge to find and develop our future workers. We've hired prior Institute graduates who have become some of our most promising new employees.



Doug Edmonson

Director of Career & Technical Education (CTE)

East Valley School District partners with the Institute to promote manufacturing to our students. Many students are best matched with industry careers and the Institute shows them the path. We've seen significant growth in our welding, engineering, and construction classes from the Institute. Most important, we've seen the positive changes in the lives of the kids who graduate from the program.



Spokane Community College

SCC partners with PMI to deliver a world-class learning environment and to expose students to a world of manufacturing, business, engineering, and trades. The college has worked with the Institute for years, offering hands-on welding and machining opportunities guided by instructors. Each year, they offer the Trades Building on campus for PMI's first full week to support student success.



Pearson Packaging prides itself in offering automation and optimization for business packaging processes. They see the Institute as a way to create interest and develop student skills.



The Parker-Hannifan foundation supports career and workforce development. They invest in PMI to help create the future workforce.



Kaiser Aluminum is committed to growing the future workforce. They have been strong supporters of PMI since the start.



The NW I-90 Manufacturer's Alliance values the opportunity the Institute provides to expose students to career pathways.



As Hotstart has experienced expansive growth through the years, it recognizes the need to grow its workforce through PMI.



Collins Aerospace partners with customers to redefine the future of aerospace. They rely on the Institute to lay the foundation for the future.





The Production & Manufacturing Institute
www.manufacturinginstitute.net

A collaborative workforce partnership driven by business, partnered with education, and supported by the community.



Dr. Wade Larson
Executive Director

THANK YOU!

We know you have a lot of requests of your resources, time, and energy. I appreciate your time and consideration to help us build the next generation of workforce-ready employees.

Today's workforce challenge is a problem that won't be solved on its own.

It's time for all of us to combine forces, work together, and make it happen. We have the right program. With your support, we can expand the resources needed to build the talent pipeline of today and tomorrow!

Dr. Wade Larson



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support@manufacturinginstitute.net



www.manufacturinginstitute.net

Direct Donation Link: <https://spokaneworkforce.org/donate-now>