Red Rocks Community College Opportunity Now Aerospace Manufacturing Grant

Project Report

March 2025–August 2026

Executive Summary

The Red Rocks Community College (RRCC) Opportunity Now Aerospace Manufacturing initiative created a shared, employer-driven foundation for strengthening the region's aerospace and advanced manufacturing talent pipeline. From March 2025 through August 2026, the project moved from understanding workforce demand and training gaps to designing connected career pathways, expanding training, organizing regional programs, and testing tools that can help learners navigate from preparation to employment.

The work unfolded in two connected phases. In Phase 1, led by the Greater Arvada Chamber of Commerce using the Talent Pipeline Management framework, seven employers—Barber-Nichols, CoorsTek, EPOCS, Faustson, Kratos, Lockheed Martin, and Sundyne—shared workforce data, identified common challenges, and aligned around six critical occupations. Together, they projected approximately 450 openings for 2026–2027 and defined the technical competencies, durable skills, certifications, and training needed to prepare people for those roles.

In Phase 2, facilitated by Education Design Lab (EDL), partners translated that employer-validated foundation into career pathways, a regional program directory, expanded training opportunities, and tools for connecting learners, training providers, and employers. This phase moved the project from assessment to implementation while creating a more coordinated framework for sustaining and expanding the regional talent pipeline.

Key impacts include:

- **Turned employer-validated data into training action.** RRCC launched a shorter, more accessible CNC Machining Bootcamp based on the America's Cutting Edge curriculum and the workforce needs identified by participating employers. By August 2026, the 32-hour course had been delivered five times at RRCC and CoorsTek, with 47 participants completing the training and at least one additional delivery planned for 2026. Employer visits also gave learners direct exposure to participating companies and available career opportunities.
- **Expanded entry points into manufacturing careers.** Learners can explore machining through a six-hour online introductory course and continue building relevant skills through online Composites and Metrology courses. Warren Tech and Red Rocks Community College are also developing a joint Mechatronics program planned for fall 2027, with certifications and concurrent-enrollment opportunities supporting aerospace, quantum, and related manufacturing pathways.

- **Organized regional training assets into connected pathways.** EDL developed career pathways and a directory, called AeroPath, identifying 31 providers and 68 programs, credentials, bootcamps, apprenticeships, and other opportunities across eight occupational pathways. The directory connects programs to occupations and career levels, helping partners identify existing assets, potential gaps, and opportunities for credential stacking.

- **Translated the pathway work into a learner-centered navigation concept.** AeroPath demonstrates how occupations, advancement opportunities, skills, training programs, and education providers could be presented as a connected, navigable experience. Although it is not intended for public use in its current form, it provides a tangible model for incorporating the project's pathway work into a platform designed for long-term implementation.

- **Established a transparent feedback loop among employers, providers, and workforce partners.** Through the CareerFit Colorado pilot, four Verified Talent Provider programs and seven employers were added to the platform. By the end of Q3 2026, 145 local job seekers interested in advanced or aerospace manufacturing had created profiles, including 22 CNC Machining Bootcamp completers. Early implementation also showed that direct outreach to learners is more effective than relying primarily on instructors to introduce the platform.

- **Strengthened regional relationships and shared ownership.** Employers, education providers, workforce organizations, economic development leaders, and community partners developed a common language around workforce demand, skills, training quality, and career progression. The planned Peer Community Leadership Exchange with Pima County was designed to deepen that collaboration and generate practical ideas for sustaining the work beyond the grant period.

Together, these results provide more than a set of standalone deliverables. The region now has a clearer understanding of employer needs, a more organized view of available training, expanded entry points for learners, and stronger connections among training, career pathways, and employment.

Sustaining this impact will require continued employer feedback, provider responsiveness, direct learner outreach, coordination with existing workforce and education platforms, and clear ownership for keeping pathway and program information current. The project leaves Jefferson County and its regional partners with stronger relationships and a more coordinated foundation for helping learners access living-wage careers while helping employers develop the workforce they need.

Introduction

In March 2025, Red Rocks Community College (RRCC) launched a regional initiative to strengthen and expand the aerospace manufacturing talent pipeline through coordinated employer engagement, pathway design, and high-impact training solutions. Funded by an Opportunity Now Grant, RRCC established an Aerospace Manufacturing Pathways Steering Committee (SC) and an Advisory Board (AB) composed of industry, education, workforce, economic development, and community partners. This report follows the work from the initial employer-led talent assessment through pathway development, training expansion, and implementation pilots, showing how each stage built on the one before it.

This initiative intentionally minimizes duplication of effort by leveraging existing data and insights from a recent Advanced Manufacturing TPM effort. Consolidating this work under the RRCC Aerospace Manufacturing grant umbrella allows deeper research, shared data, and a unified approach to solving regional workforce gaps.

Project Phases and Leadership

Phase 1: Employer-Validated Talent Assessment (March–December 2025). The Greater Arvada Chamber led the occupational needs assessment and employer engagement using the TPM framework. This phase established the project's evidence base: priority roles, projected demand, hiring requirements, shared skills, training supply, and gaps in the regional talent pipeline.

Phase 2: Pathway Design and Implementation (January–August 2026). EDL facilitated the translation of those findings into career pathways, program mapping, and the AeroPath demonstration. In parallel, project partners expanded training and employer connections, piloted CareerFit Colorado, and prepared for a cross-community learning exchange focused on sustaining the work.

Although leadership shifted by phase, the work was intentionally continuous: employer demand and validated skills shaped the pathways; the pathways organized training options; and the implementation pilots began testing how learners, providers, and employers could engage with the resulting system.

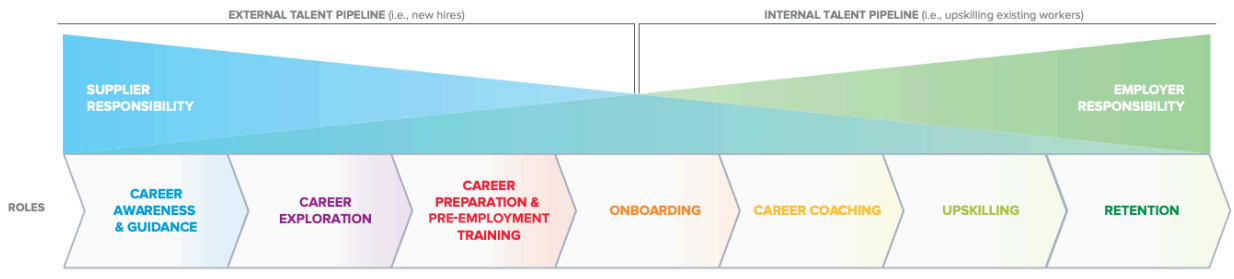
Grant Objectives, Framework, Deliverables, and Outcomes

To achieve the grant's overall goal, **three objectives** were identified:

- Surveying the regional talent landscape, validating existing assets, and aligning work to ongoing initiatives to reduce duplication of efforts.
- Designing occupational maps, career pathways, and stackable micro-credentials across five critical focus areas:
    a. Engineering Technology
    b. Mechatronics
    c. Composite Materials
    d. Precision Machining
    e. Quantum Technology
- Expanding work-based learning and training opportunities, with a focus on increasing access for underrepresented populations entering the aerospace workforce.

The SC agreed to use the **Talent Pipeline Management (TPM)** framework to guide and structure the work. TPM enables employers to analyze the full talent supply chain, clarify where employer and education responsibilities intersect, and identify bottlenecks that impede the flow of qualified workers.

Figure 5.1: Basic Value Stream Map



Discussions, discoveries, and recommendations reflecting these objectives will be collected and communicated through **three deliverables**:

1. A regional Talent and Employee Training Needs Assessment

2. A full Aerospace Manufacturing Career Pathways and Micro-Credential Framework
3. A Collaborative Funding and Aerospace Manufacturing Facility Plan

Most importantly, the work must produce the following **meaningful outcomes** for learners to prove the value of the resource investment:

- 150 participants served
- 105 completers
- 98 participants employed at or above the MIT Living Wage
- 67 retained at one year

Regional Partners and Roles

The SC met monthly from March through November 2025, beginning with forming the AB, and is made up of organizations representing the full stakeholder landscape:

- **RRCC Foundation** – Fiscal agent and financial reporting
- **RRCC** – Grant management, outcomes reporting, student connections
- **Education Design Lab (EDL)**– Pathway design and formal deliverables
- **Arvada Chamber of Commerce** – Occupational needs assessment, employer engagement
- **Jeffco EDC** – Leadership visits and employer recruitment
- **Jefferson County Business & Workforce Center** – Jobseeker representation, WBL support
- **Manufacturer's Edge** – Representation of small manufacturers, employer recruitment
- **Jeffco Public Schools** – K–12 alignment and student connections

The AB kicked off monthly meetings in May 2025. Virtual work culminated in an in-person AB meeting at RRCC on November 13, 2026. Participants reflected on the work to date, including demand and skills alignment, then moved it forward by evaluating existing training programs addressing these skills and identifying gaps and redundancies. Outcomes from the day included stronger community connections and increased collaboration across employers and partners.

Early progress demonstrates the impact of this coordination. Training capacity has already increased by 40 seats per year, with more gains anticipated as pathways, micro-credentials, and WBL partnerships continue to expand.

Employer Engagement

A subset of the Advisory Board (AB), a group of leading aerospace manufacturing employers, **Barber-Nichols, CoorsTek, EPOCS, Faustson, Kratos, Lockheed Martin, and Sundyne,** have invested significant time and resources in identifying shared talent gaps, understanding their root causes, and brainstorming creative solutions. Through Steering Committee (SC) and AB meetings, data from a previous advanced manufacturing TPM effort, the in-person convening, and shop floor visits, employers consistently identified the following pain points:

Workforce skill alignment

Strong competition for a shallow talent pool

Hiring process efficiency

Negative industry perception

Mismatch between job requirements and worker preferences

Retention challenges

Colorado's broader manufacturing ecosystem further reinforces the need for a coordinated approach. With approximately 600 small machine shops (fewer than six employees), workers benefit from options of organizational sizes and cultures, but these shops don't always have the resources to recruit in a structured way. The work completed in this project will benefit companies of all sizes.

Phase 1: Employer-Validated Talent Assessment

The first phase established the employer-validated evidence base for all subsequent pathway and implementation work. The sections below retain the detailed analysis of workforce challenges, demand, hiring requirements, shared skills, and regional training supply completed through the Chamber-led TPM process.

Critical Pain Points

Employers across the aerospace and advanced manufacturing sectors share a growing sense of urgency around workforce sustainability. Several systemic challenges are converging, making it increasingly difficult to meet production demands, maintain institutional knowledge, and remain competitive in a rapidly changing market.

- **Aging Workforce & Shrinking Talent Pool:** A significant portion of the current workforce is approaching retirement, raising concerns about knowledge transfer, leadership continuity, and long-term capacity. At the same time, Colorado's declining birth rates since 2005 signal fewer local workers entering the pipeline.

- **Skills Mismatch:** Technological advances in manufacturing, automation, and digital tooling are outpacing updates to traditional training programs leaving employees and graduates underprepared for modern shop-floor requirements.

- **Persistent Talent Shortages in Critical Roles:** Even with the right skill sets, there are not enough workers locally to meet all of the needs, making employee retention, stronger internal career pathways and upskilling critical.

- **Workforce Diversity Gaps:** Women, minorities, and veterans remain underrepresented in technical roles. This limits the industry's talent pool, reduces opportunities for innovation, inclusive problem-solving, and community alignment, and can make it challenging to initially attract those demographics.

- **Political & Economic Volatility:** Ongoing uncertainty around tariffs, national industrial policy, and global supply chain disruptions is creating cost pressures and operational unpredictability, complicating long-term workforce and production planning.

- **Security Clearance Bottlenecks:** Clearance requirements significantly shrink the eligible applicant pool. Lengthy and complex processes discourage candidates and slow down hiring, especially for small and mid-sized firms competing with large primes.

Critical Roles

The employer collaborative identified six key roles aligned with the five pathways as priority areas of focus based on difficulty of hiring, cost of not having someone in the role, and criticality of the role to strategic plans:

- CNC Machinist
- Precision Machinist
- Quality Inspector
- Misc. Assemblers & Fabricators (Precision, Composite, Mechanical)
- Electrical Technicians
- Industrial Maintenance Technicians

	Grant Career Pathways				
Advisory Board Critical Roles/Occupations	**Precision Machining**	**Advanced Composite Materials**	**Mechatronics**	**Engineering / Industrial Technology**	**Quantum**
CNC Machinist	X	X	X		*As an emerging market, the role of Quantum Technician is still being defined*
Precision Machinist	X	X			
Quality Inspector	X	X	X	X	
Misc. Assemblers & Fabricators	X	X	X	X	
Electrical Technician			X	X	
Industrial Maintenance Technician			X	X	

Detailed Critical Role Information

To most effectively address talent pipeline obstacles in a critical pathway, it's important to understand not just the symptoms - a shortage of talent - but the root causes. Three areas of data can highlight areas of opportunity that require further digging to understand and remedy:

1. **Quantity (Demand): How many roles will need to be filled, and what are the specifics of those roles (level, new/replacement, part-time/full-time)?** Regional demand projections clarify the size and cost of workforce gaps, reinforcing the business case for focusing on these specific roles. Clear demand data helps employers recognize the value of working together and encourages training providers to build programs that prepare students for high-demand, well-paid jobs with immediate availability.

2. **Quality (Hiring Requirements): What are the hiring requirements for these roles?** Accurately communicating required skills, certifications, experience, and expectations helps attract the right applicants, supports hiring managers in selecting strong candidates, and enables training providers to tailor programs to employer needs. Drawing from job descriptions, cohort discussions, and direct shop-floor observations, employers identified a shared set of day-one skills for the critical roles. Even with their unique processes and tools, employers agreed that establishing a unified core skill set creates real value. This alignment also supports a shift away from measuring readiness by "time on machine" and toward competency and proficiency, a change that can lower costs, increase productivity, provide clearer entry points for learners, reduce redundant training, and allow individuals to target specific skill gaps rather than completing full programs unnecessarily.

3. **Supply (Program Completions): What is the capacity of existing talent providers to supply the required talent?** Completion data and employers' current talent sources help complete the supply–demand picture, revealing opportunities to strengthen existing training pipelines and, if needed, develop new ones. Lightcast™ research identifies which educational programs in the Denver Metro Area currently train for the critical roles. This was done by role name and SOC Codes found in Lightcast™. Detailed Job > SOC Code > CIP Code mapping can be found here.

   Note: During the process, employers viewed 2023 program completion data, which is used in this report. Since work on the report began, 2024 program data became available. Data for most of the roles did not change meaningfully, however it appears changes in SOC Code > CIP Code mapping has changed for CNC Machinists and Industrial Maintenance Techs, which impact the numbers for those roles. Total number of completions does not appear to change significantly, but the same completions are being mapped to more pathways, impacting competition for graduates.

The sections below cover projected demand (quantity), skills and certification requirements (quality), and program completions (supply) at the aggregate and role-specific levels.

A Note On Quantum Technology

Quantum technology is an emerging field. The Quantum Technician role surfaced during the pathway design work, but because it does not yet have an assigned O*NET occupational code, a reliable talent gap analysis cannot be performed with the same level of fidelity as the other roles in this report. Partners are continuing to explore its definition and requirements in collaboration with Elevate Quantum. To avoid duplicating efforts, ensure alignment, and minimize additional asks of employers, the Quantum Technician role has been excluded from this report and will be developed further through the ongoing pathway work.

Projected Demand for All Critical Roles

The employers first examined Labor Market Information (LMI) from Lightcast for each critical role in Jefferson, Adams, and Denver counties for the 12 months from September 2024 to August 2025. This provided a baseline look at the need and potential indicators of pipeline challenges like salary and level of competition.

		Lightcast Data Sep 2024 - Aug 2025			
Role	**SOC Code**	**Unique Job Postings (UJP)**	**Employers Competing (EC)**	**Median Posting Duration (Days)**	**Comp. Avg. (CA)**
CNC Machinist (CNC Tool Operator)	51-9161	108	49	22	$55,093
Precision Machinist (Machinist)	51-4041	132	52	22	$66,587
Quality Inspector (Inspectors, Testers, Sorters, Samplers, and Weighers)	51-9061	1,226	474	25	$55,581
Misc. Assembler & Fabricator (Adhesive Bonding Machine Operators and Tenders -	51-9191	**No Data Available** **(Misc Assemblers has been removed - 51-2098)**			

		Lightcast Data Sep 2024 - Aug 2025			
Miscellaneous Assembler & Fabricator has been removed from O*Net)					
Electrical Technician (Electrical and Electronic Engineering Technologists and Technicians)	17-3023	309	153	26	$78,052
Industrial Maintenance Technicians (Industrial Machinery Mechanics)	49-9041	561	222	24	$77,378

However, LMI does not include levels or the breakdown of new/replacement or full-time/part-time, so the seven participating companies shared their projections for 2025-2027 roles. The table below shows the number of companies in the cohort hiring for the role, total number of projected open roles for the next two years, and a breakdown of full-time vs. part-time and new vs. replacement.

Role	***# Cohort Employers Hiring this Role***	***# Projected Open Roles (All levels, '26-'27)***	***% FT (vs. PT)***	***% New (vs. Replacement)***
CNC Machinist	7/7	113	80% FT	54% New
Precision Machinist	5/7	55	84% FT	23% New
Quality Inspector	7/7	69	93% FT	52% New
Misc. Assemblers & Fabricators	5/7	88	100% FT	75% New
Electrical Tech	4/7	89	98% FT	61% New
Industrial Maintenance Tech	4/7	41	87% FT	15% New

Key takeaways from this table begin to dive into the differences among the roles, which employers weighed in on:

- Though the CNC Machinist role seems to offer the most opportunity for part-time work, employers shared that the inflexibility of all manufacturing floor roles is a challenge in attracting and retaining employees.
- Replacement numbers for CNC and Precision Machinists and Quality Inspectors are related to retirement, with promotions as a secondary factor, while employers shared that industrial maintenance techs tend to bounce around for higher wages.

- Some smaller shops contract out their maintenance work to specialized maintenance firms, giving technicians even more options for where and how they can build their careers.

In the sections below, employer data is broken down by role and level, inclusive of new, replacement (due to promotion, retirement, other turnover), part-time, and full-time roles, and compared to the LMI data.

Projected Demand, Hiring Requirements, and Supply by Role

CNC Machinist Overview

CNC Machinist Demand - All 7 employers hire

	Employer Cohort Actuals						LMI Data		
Role	**New FT**	**New PT**	**Replace FT**	**Replace PT**	**Total Open**	**Open Roles/Cohort Employ**	**UJP**	**EC**	**Posting /EC**
Entry	27	7	21	3	**55**	**8**	108	49	**2**
Mid	18	5	12	2	**35**	**5**			
Senior	4	11	8	6	**23**	**3**			
					113				

Entry-level CNC Machinists require a combination of technical, mathematical, and analytical skills to effectively translate design specifications into precise manufactured components. Employers also focused heavily on being able to maintain a safe work environment and operate machines safely and the need to be on your feet continuously.

Core competencies include:

- **Math & Measurement:** Apply basic shop math, algebra, and trigonometry to calculate dimensions, tolerances, and tool paths and verbally communicate them effectively.
- **Blueprint Reading & GD&T:** Interpret technical drawings and apply GD&T to ensure parts meet design and tolerance requirements.
- **Machine Operation & Setup:** Operate and set up manual and CNC machines, selecting tools, speeds, and feeds for different materials, and perform preventive maintenance. Manual machining experience isn't required to operate or set up CNC machines, but it greatly helps in diagnosing issues and finding solutions when parts don't meet specifications.
- **Programming & CAM:** Use CAM software and CNC programming to translate digital designs into precise machining instructions.
- **Materials & Processes:** Understand manufacturing processes, metal fabrication, and material properties for efficient, accurate production.

- **Precision & Quality:** Perform precision measurements and apply quality system standards to maintain tight tolerances and continuous improvement.

Together, these skills enable CNC Machinists to produce high-quality, complex parts that meet exact engineering and industry specifications in advanced manufacturing environments. OSHA 10 certification is typically not required upon hire, but gives candidates a leg up. No previous experience is required, and applicants can qualify with a GED or high school diploma, but will most likely start as an Operator and gain the skills to set up machines with experience.

At the mid- and senior levels, the complexity of responsibilities increases and additional experience, training, and certification is required. This includes familiarity with Geometric Dimensioning and Tolerancing (GD&T) standards, completion of a Certified Operation Program, and at the senior levels, an Associate's Degree or Technical Certification is a plus.

Promotions have historically been based on time-in-role. A culture shift to skills-based hiring and career progression will be challenging but necessary to engage and retain younger employees, provide more targeted learning opportunities, and improve time-to-productivity for new hires.

Program Completions (2023)

Role	Education Program Name	Program Completions	Total Pathway Program Completions	Top Programs
CNC Machinist (CNC Tool Operators)	Machine Shop Technology/Assistant	153	272	Red Rocks Community College (148)
	Computer Numerically Controlled (CNC) Machinist	78		Front Range Community College (119)
	Automation Engineer Technology/Technician	41		Community College of Denver (5)

Supply/Demand Analysis

Demand for CNC Machinists is strong across the region, with all seven participating employers actively hiring at the entry, mid, and senior levels, resulting in a combined 113 open roles. Entry-level openings represent the largest share at 55, underscoring the importance of building and maintaining a strong early-career pipeline. Labor Market Information (LMI) reinforces this picture, indicating high posting intensity and competitive pressure for a limited pool of qualified candidates.

On the supply side, regional programs are not producing graduates at a scale that fully meets regional demand. In 2023, institutions produced 272 completions across CNC-related pathways including. When compared to the 113 roles identified by just seven employers, a segment of the broader employer community, it is clear that the available supply does not fully meet employer needs.

Precision Machinist Overview

Precision Machinist Demand - 5 Employers Hire: Barber Nichols, CoorsTek, Kratos, EPOCS, Lockheed

	Employer Cohort Actuals						LMI Data		
Role	**New FT**	**New PT**	**Replace FT**	**Replace PT**	**Total Open**	**Open Roles/Cohort Employ**	**UJP**	**EC**	**Posting /EC**
Entry	7	0	25	2	**34**	**7**	132	52	**3**
Mid	3	1	8	3	**15**	**3**			
Senior	1	1	3	2	**6**	**2**			
					55				

Precision Machinists produce complex, high-tolerance components that meet rigorous engineering and industry specifications. They combine advanced machining expertise with blueprint interpretation, tool selection, and inspection techniques to achieve exceptional accuracy and surface finishes. Precision Machinists often bridge manual craftsmanship with advanced computer-aided manufacturing.

Core competencies include:

- **Math & Measurement:** Apply basic shop math, algebra, and trigonometry to calculate dimensions, tolerances, and tool paths and verbally communicate them effectively.
- **Blueprint & GD&T:** Read and interpret blueprints and apply GD&T to ensure parts meet design and tolerance requirements.
- **CNC Machining & Programming:** Setup and operate CNC mills and lathes, using Mastercam and CAD/CAM tools to program and optimize machining; perform preventive maintenance.
- **Manual Machining:** Perform precision work on manual lathes and mills for prototypes and production parts.
- **Cutting Tools:** Select appropriate tools, materials, and inserts to improve surface finish, tool life, and efficiency.
- **Surface Finish & Inspection:** Apply surface finish standards and use precision tools to verify tolerances and quality.
- **Process Optimization:** Improve machining workflows, reduce waste, and enhance quality through hands-on problem solving.

The owner of a local machine shop shared that it's common for Precision Machinists to get comfortable with either milling or lathe machines and want to stay in those lanes. Even within lathe machines, people can become committed to either swiss or traditional types, which can also be limiting. The differences among these types of

precision machining are not markedly distinct, so a shift in mindset toward working more broadly can open up more career opportunities for the employee and greater flexibility for the employer.

Precision Machinists are expected to hold or obtain key foundational certifications that reinforce safety, efficiency, and continuous improvement, including OSHA 10 (Workplace Safety) and Lean (Intro to Lean) for process improvement and continuous improvement awareness.

Key Differences Between CNC Machinists and Precision Machinists

While both roles share the core technical foundations of blueprint reading, GD&T, and producing high-tolerance parts, they differ in scope, specialization, and craftsmanship. CNC Machinists are process-driven operators and programmers ensuring consistency and efficiency in automated and manual machining. Precision Machinists are craft technicians who may blend manual and digital techniques to achieve the highest possible levels of dimensional accuracy and surface finish.

Program Completions (2023)

Role	Education Program Name	Program Completions	Total Pathway Program Completions	Top Programs
Precision Machinist (Machinist)	Machine Shop Technology/Assistant	153	231	Red Rocks Community College (148)
	Computer Numerically Controlled (CNC) Machinist	78		Front Range Community College (78)
				Community College of Denver (5)

Supply/Demand Analysis

Only five of the cohort employers hire Precision Machinists, reporting 55 open roles, including 34 entry-level, 15 mid-level, and 6 senior positions, reflecting consistent need and limited available talent. LMI data shows high posting intensity, indicating that employers must frequently re-post openings to attract candidates, a clear sign of competition for a shallow precision talent pool.

On the supply side, the relevant programs according to LMI information are the same ones that feed the CNC Machinist pathway, with the exception of the Automation Engineering Technology/Technician program, making the supply slightly smaller. CNC Machinists work directly with automated equipment, CNC controls, and machine interfaces, so automation coursework supports their job. Precision Machinists rely more heavily on manual machining, fine adjustments, and high-level craftsmanship, making automation coursework less relevant for their daily responsibilities.

Overall, the regional supply of precision-ready machinists does not match the depth of expertise required for these roles, especially at the entry and mid-levels.

Quality Inspector Overview

Quality Inspector Demand - All 7 employers hire for this

	Employer Cohort Actuals						LMI Data		
Role	**New FT**	**New PT**	**Replace FT**	**Replace PT**	**Total Open**	**Open Roles/Cohort Employ**	**UJP**	**EC**	**Posting /EC**
Entry	19	0	24	2	**45**	**7**	1226	474	**3**
Mid	10	0	3	1	**14**	**2**			
Senior	6	1	2	1	**10**	**2**			
					69				

Quality Inspectors play a critical role in ensuring manufactured parts and products meet precise specifications and industry standards. Their work demands accuracy, documentation, and deep familiarity with inspection tools, processes, and quality systems. In every company, employees performing the job are expected to inspect each part (or a random sample) before sending it to the next step. Most larger companies and those with government contracts have a specific Quality Inspector role and/or career pathway, but this is not true for all shops, which may rely on the production line manager to ensure quality.

Core competencies include:

- **Measurement & Calibration:** Use calipers, micrometers, and other precision tools; perform equipment calibration to maintain accuracy.
- **Inspection Technology:** Operate CMMs and inspection software for precise part verification.
- **Blueprint & GD&T:** Read and interpret technical drawings and GD&T to confirm dimensional accuracy and design intent.
- **Quality Systems & Standards:** Apply QA/QC principles, ISO 9001 standards, and FAI procedures; maintain compliance documentation.
- **Defect Detection & Root Cause:** Identify and document defects; use root cause analysis to prevent recurrence.
- **Process & Product Verification:** Ensure product quality through inspection, documentation, and continuous improvement; strong technical writing skills required to support report-outs.
- **Reproducibility & Investigation:** Conduct reproducibility testing and measurement investigations; trainable on the job.

Quality Inspectors are expected to obtain foundational certifications that support safety, quality, and process improvement. These include OSHA 10 for workplace safety, IPC Operator/Inspection certifications (such as

IPC-WHMA-A-620, IPC-J-STD-001, and IPC-7711/7721) covering electronics and wiring standards, Lean (Intro to Lean) for continuous improvement principles, and Intro to Quality Tools to apply data-driven methods for process and product improvement.

Together, these skills and certifications enable Quality Inspectors to uphold rigorous quality benchmarks, support manufacturing excellence, and ensure customer and regulatory compliance in advanced production environments.

Program Completions (2023)

Role	Education Program Name	Program Completions	Total Pathway Program Completions	Top Programs
Quality Inspector (Inspectors, Testers, Sorters, Samplers, and Weighers)	Quality Control Technology/Technician	0	37	Metro State Denver (37)
	Quality Control and Safety Technologies/Technicians, Other	0		
	Mechanical/Mechanical Engineering Technology/Technicians	37		

Supply/Demand Analysis

Demand for Quality Inspectors is high and consistent across the region, with all seven participating employers hiring for this role, highlighting the critical need for quality oversight in aerospace and advanced manufacturing. Employers reported 69 openings, including 45 entry-level, 14 mid-level, and 10 senior roles. LMI shows extremely high posting intensity—1,226 job postings for only 474 unique postings—indicating persistent competition for a limited pool of candidates.

On the supply side, educational completions aligned to Quality Inspector roles are limited, including only 37 in 2023 and falling short of employer demand. Because many Quality Inspectors come from internal production roles rather than directly out of school, training providers and workforce programs play an especially important role in preparing new entrants with foundational quality skills and in providing upskilling options for incumbent workers.

Miscellaneous Assembler and Fabricator Overview

Misc. Assembler & Fabricator Demand - 5 Employers Hire: Barber Nichols, Kratos, EPOCS, Lockheed, Faustson (Information was not provided by level)

	Employer Cohort Actuals						LMI Data		
Role	**New FT**	**New PT**	**Replace FT**	**Replace PT**	**Total Open**	**Open Roles/Cohort Employ**	**UJP**	**EC**	**Posting /EC**
All	66	0	23	0	**89**	**18**	No Data Available		

Assemblers and Fabricators build and finish components for precision, composite, and mechanical products, following blueprints and quality standards to ensure safety and accuracy in production. This role emphasizes math skills, attention to detail, manual dexterity, and adherence to production processes. During a shop floor visit, a fabricator said math - and being able to read a tape measure - is 80% of his job.

Core competencies include:

- **Blueprint Reading:** Read and follow assembly drawings and work instructions for accurate part placement.
- **Production Processes:** Understand manufacturing workflows, sequencing, and documentation.
- **Tool Use:** Safely operate hand tools, power tools, and basic machinery for assembly and fabrication.
- **Inspection & Measurement:** Perform visual checks and basic measurements to verify part quality.
- **Math & GMP:** Apply basic math and follow Good Manufacturing Practices for consistency and cleanliness.
- **Lean & 5S:** Maintain organized, efficient work areas through 5S and Lean principles.
- **Safety & Hazmat:** Follow OSHA and Hazmat procedures to ensure a safe workplace.
- **Material Handling:** Move and manage materials within production and warehouse environments.

Assemblers and Fabricators typically hold OSHA 10, Lean (Intro to Lean), and IPC Operator/Inspection certifications (IPC-WHMA-A-620, IPC-J-STD-001, IPC-7711/7721) relevant to wiring, soldering, and electronic assembly standards.

Classification and Program Completion Data Note: The “Miscellaneous Assemblers & Fabricators” SOC code has been removed from O*NET. While Adhesive Bonding Machine Operators and Tenders may be a partial replacement (notably for aviation), neither title currently maps to CIP codes in Lightcast, creating challenges for program alignment. Because of this, Lightcast is not able to provide program completion data.

Supply/Demand Analysis

Five cohort employers reported 89 openings, including 66 new full-time positions and 23 replacement roles. This level of demand signals a sustained need for entry-level production talent capable of supporting precision, composite, and mechanical manufacturing operations. Labor Market Information (LMI) could not be generated for this role due to classification changes, but employers' real-world demand data makes the need clear.

Without aligned program codes, program completion information for assembler- or fabricator-relevant training is not available. The combination of high employer demand, the lack of formal training pipelines, and missing program completion data creates a challenge. Building a stronger, more transparent pipeline for assemblers and fabricators will require:

1. Clarifying occupational definitions across employers
2. Establishing aligned SOC/CIP mappings
3. Creating or updating training programs
4. Recruiting learners into entry-level pathways that can lead into machining, inspection, or maintenance roles over time

Electrical Technician Overview

Electrical Technician Demand - 4 Employers Hire: Barber Nichols, CoorsTek, Kratos, Lockheed (Information was not provided by level)

	Employer Cohort Actuals						LMI Data		
Role	**New FT**	**New PT**	**Replace FT**	**Replace PT**	**Total Open**	**Open Roles/Cohort Employ**	**UJP**	**EC**	**Posting /EC**
Entry	50	1	33	1	**85**	**22**	309	153	**2**

Electrical Technicians install, maintain, troubleshoot, and repair electrical and electronic systems that support advanced manufacturing environments. Their work requires a strong foundation in electrical theory, applied physics, automation, safety, and problem-solving.

Core competencies include:

- **Electrical Theory & Application:** Apply principles of DC and AC electricity, including circuits, sources, loads, RLC circuits, linear amplifiers, steady-state sinusoidal analysis, and power electronics.
- **Safety & Compliance:** Follow electrical safety protocols, Lockout/Tagout (LOTO), and industry standards when working with energized equipment, robotics, and high-voltage systems.
- **Systems & Components:** Work with motors, power supplies, machines, mechanical components, and electromechanical systems used in manufacturing.

- **PLCs & Automation:** Understand the role of PLCs, robotics, mechatronics, and automated systems in manufacturing; use PLC programming and troubleshooting techniques.
- **Electronics & Applied Physics:** Apply concepts of electronics, applied physics, and computer-based systems to diagnose and resolve issues in electrical equipment.
- **Technical Documentation & Troubleshooting:** Read and interpret schematics, wiring diagrams, and technical documentation; perform systematic troubleshooting and testing.
- **Computers & Digital Tools:** Use computers, electronics, and instrumentation for maintenance tasks, diagnostics, documentation, and quality assurance.

Electrical Technicians are strongly encouraged to obtain OSHA 10 for workplace safety and Lean (Intro to Lean) to support continuous improvement and efficient system troubleshooting.

Program Completions (2023)

Role	Education Program Name	Program Completions	Total Pathway Program Completions	Top Programs
Electrical Technicians (Electrical and Electronic Engineering Technologists and Technicians)	Electrical, Electronic, and Communications Engineering Technology/Technician	51	66	Front Range Community College (33)
	Manufacturing Engineering Technology/Technician	15		Metro State Denver (33)

Supply/Demand Analysis

Four cohort employers hire electrical technicians and reported 85 openings, including 50 new full-time roles and 33 replacement positions, reflecting both expansion and ongoing turnover. With 22 open roles per cohort employer, and high posting activity shown in Labor Market Information (LMI)—309 total postings for 153 unique postings—the market shows clear signs of intensity and competition for qualified talent.

On the supply side, training program output is modest relative to employer demand. In 2023, Colorado institutions produced 66 completions from electrical technician–relevant programs, some transition into engineering, maintenance, or automation positions, further shrinking the available pool for electrical technician hiring. Employers also report that electrical roles often require additional on-the-job training, familiarity with specific systems (e.g., PLC platforms), and the ability to troubleshoot across mechanical and electrical domains, making it even harder to fill roles quickly.

The combination of strong employer demand, relatively limited program output, and competition from related fields (automation, engineering technology, industrial maintenance) places consistent pressure on the regional talent pipeline.

Industrial Maintenance Technician Overview

Industrial Maintenance Technician Demand - 4 Employers Hire: Barber Nichols, CoorsTek, Lockheed, Honeywell (Sundyne) (Information was not provided by level)

	Employer Cohort Actuals						LMI Data		
Role	**New FT**	**New PT**	**Replace FT**	**Replace PT**	**Total Open**	**Open Roles/Cohort Employ**	**UJP**	**EC**	**Posting /EC**
Entry	4	2	32	3	**41**	**11**	561	222	**3**

Industrial Maintenance Technicians maintain, troubleshoot, and repair complex equipment and facility systems to ensure safety and operational reliability, reduce downtime, and support continuous improvement in modern, technology-driven manufacturing environments.

Core competencies include:

- **Equipment Maintenance:** Perform predictive and preventive maintenance to minimize downtime.
- **Electrical & PLC Controls:** Work with electrical systems and PLCs (Siemens, Allen Bradley) to monitor and control production processes.
- **Mechanical Systems:** Maintain and repair pumps, hydraulics, pneumatics, and HVAC systems.
- **Machining & Fabrication:** Use manual machining and welding for repairs or part replacements.
- **Calibration & Instrumentation:** Calibrate and maintain sensors and control devices for accurate performance.
- **CMMS Systems:** Use software (e.g., Maintenance Connection, eMaint) to track maintenance schedules and work orders.
- **Safety & Compliance:** Follow Lockout/Tagout (LOTO), OSHA, and other safety procedures.
- **Technical Literacy:** Read schematics, blueprints, and wiring diagrams; document maintenance activities.
- **Quality & Continuous Improvement:** Apply QMS principles to support reliability and process improvement.

Technicians typically hold OSHA 10 and Lean (Intro to Lean) certifications for workplace safety and process efficiency.

Program Completions (2023)

Role	Education Program Name	Program Completions	Total Pathway Program Completions	Top Programs
Industrial Maintenance Technicians (Industrial Machinery Mechanics)	Mechanical/Mechanical Engineering Technology/Technician	37	37	Metro State Denver (37)
	Industrial Mechanics and Maintenance Technology/Technician	0		

Supply/Demand Analysis

Four cohort employers hire Industrial Maintenance Technicians and report 41 projected openings, including 4 new full-time roles, 2 new part-time roles, and 35 replacement positions. Replacement demand is especially notable and reflects the aging workforce, retirements, and a culture of job hopping. With an average of 11 openings per employer, the role is one of the most difficult to staff and the most costly to have understaffed. Labor Market Information (LMI) underscores these challenges: 561 job postings for only 222 unique postings, meaning employers must repost openings multiple times because of the limited candidate pool.

On the supply side, completion data shows a significant mismatch between employer demand and available new talent. In 2023, only 37 program completions were recorded statewide across pathways relevant to Industrial Maintenance. All 37 completions came from Metro State University Denver's Mechanical/Mechanical Engineering Technology program, which only partially aligns with hands-on industrial maintenance work. Critically, the CIP code most directly tied to this occupation—Industrial Mechanics and Maintenance Technology/Technician—reported zero completions in the same year. This means there were no graduates from a directly aligned, occupation-specific training program entering the Colorado labor market.

The combination of steady employer demand, high replacement needs, and minimal formal training output—including zero completions from the most relevant CIP—highlights a significant talent gap.

Shared Technical Competencies Across Critical Roles

While each role—CNC Machinist, Precision Machinist, Quality Inspector, Miscellaneous Assemblers & Fabricators, Electrical Technician, and Industrial Maintenance Technician—has distinct technical requirements, they share a strong foundation of core manufacturing competencies. This detailed table highlights areas of overlap across all six roles, illustrating where shared skills, certifications, and competencies create natural pathways for cross-training, advancement, and talent mobility within the aerospace and advanced manufacturing ecosystem. These are the key insights:

- **Shared Foundations:** All six roles rely on safety (OSHA 10), basic math and measurement, blueprint interpretation, and lean/5S awareness—forming a strong foundation for cross-training or pathway mobility.
- **Machining Cluster:** CNC Machinists and Precision Machinists share extensive overlap in GD&T, tool knowledge, CAM programming, and quality verification, with Precision Machinists performing more manual and high-tolerance work.
- **Quality & Inspection:** Quality Inspectors share strong alignment with both machining roles on measurement, GD&T, and QMS, but diverge into calibration, CMM operation, and root cause analysis.

- **Assembly & Fabrication:** Assemblers & Fabricators align with machinists and inspectors on drawing interpretation, measurement, and safety, while adding strengths in production process, GMP, and warehousing.

- **Electrical & Maintenance Pathways:** Electrical Technicians and Industrial Maintenance Techs overlap in PLC controls, instrumentation, hydraulics, and preventive maintenance, with maintenance techs more broadly spanning mechanical systems and QMS auditing.

Durable Skills

In addition to the common technical competencies, shared durable skills are the core professional and interpersonal abilities that support success across all manufacturing roles. They reinforce workplace culture, productivity, and adaptability, helping workers grow within their current roles and prepare for future technologies, roles, and environments.

These qualities apply to all critical roles and experience levels:

- **Cleanliness and Safety:** Maintain organized, clean work areas; proactively identify hazards and raise safety or quality concerns immediately.
- **Dependability and Focus:** Arrive on time and stay on task.
- **Initiative, Curiosity, and Problem Solving :** Take initiative during downtime to seek ways to lend a hand, learn new processes, and observe others' work to learn new skills; Identify issues quickly and recommend or implement practical solutions.
- **Detail Orientation and Quality:** Follow specifications carefully and double-check work for accuracy.
- **Project and Time Management:** Plan tasks efficiently, estimate timelines, and coordinate work to meet production goals.
- **Team Orientation:** Communicate clearly, collaborate effectively, and support coworkers.
- **Verbal Communication:** Ask questions for clarity, advocate for self when work is complete, and engage respectfully with supervisors and peers.

Additional durable skills required for leads, supervisors, and those progressing into management roles:

- **Leadership & Supervision:** Guide and support team members to meet performance and quality goals.
- **Team Management:** Assign work effectively and foster collaboration and accountability.
- **Conflict Management:** Address issues constructively to ensure a respectful and productive team environment.

Top skills identified to prepare workers for the next generation of manufacturing:

- **Digital Literacy:** Use digital tools, data systems, and documentation software confidently and accurately.

- **Augmented & Virtual Reality (AR/VR):** Apply immersive technologies for training, troubleshooting, and equipment operation.

- **Systems Thinking:** Understand how individual tasks and processes connect within larger manufacturing systems.

Employer Back Mapping

Just as with demand, the Lightcast data provides only a piece of the supply picture. It doesn't show where the completers go to work or in what capacity, nor does it indicate the quality of the program. Employers in the cohort were asked to identify the sources of their new hires for the past two years (a process called back mapping).

Leveraging Previously Gathered Information

A previous back mapping effort for CNC Machinists produced the program-related information below based on 24 employees across four employers. These employers ran reports in their HR systems to gather information on all CNC Machinists hired in the previous two years (2023 and 2024) and were still employed after one year. Specific training programs noted in the reports:

> **High Schools:** *Endeavor Academy (1), Castle View (1), Bear Creek (1)*
>
> **Post-secondary programs:** *University of New Mexico, Automotive Tech, ASE Certification (1), CC Denver (1), Machining for Warriors (1)*

View the entire aggregated data set here.

RRCC AB Data

In line with the goal of the RRCC grant to evaluate local program quality and gaps, employers in this effort were asked to react to the specific set of local programs. This is the aggregated information by pathway and program from the three respondents:

- **CNC Machinist Programs:**
  - RRCC - CNC Machinist 1 Semester (1); Cherry Creek - Aerospace Manufacturing (2); Community College Denver (1); Front Range Community College (FRCC) (1); Warren Tech (1)

- **Precision Machinist Programs:**
  - RRCC - Machinist AAS; Warren Tech (1); FRCC (1)

- **Industrial Maintenance Tech Programs:**
  - FRCC - Industrial Technology/Technician -2 Semesters (1)

- **Quality Inspector Programs**:
  - Red Rocks/Warren Tech. - Metrology Quality Control (2)

Building a clear, shared understanding of the current training landscape illustrates the strong partnership between the Chamber and EDL. After the Chamber surfaced and aligned the employer needs and requested employer data, EDL advanced the process by facilitating a gallery walk of existing regional programs and offerings identified through their landscape analysis. Employers and partners reviewed the components of each program and provided targeted feedback on what is missing, redundant, or unnecessary for the roles in focus. Through this collaborative review, the group also identified a common set of foundational skills that could serve as the basis for a hub-and-spoke program model, strengthening alignment and reducing duplication across training pathways.

Key Aerospace Manufacturing Sector Talent Assessment Takeaways

Consistent with findings from the Advanced Manufacturing TPM effort, the Aerospace Manufacturing sector is challenged with:

- Perception is more of a concern than general awareness. A culture shift is required to move people away from the old days of "dirty, dusty, and dangerous" to the reality of today's computer-driven manufacturing environments, and can require a lot of responsibility.
- The skills gap is not just for entry-level, but with the aging workforce in this industry, it is hard to replace the knowledge and experience of someone who's been there "42 years."
- Younger employees are looking for career pathing and clear progression pathways, but the industry has historically promoted based on tenure.
- An information gaps exist throughout the ecosystem:
    - Students/parents don't know what the profession is really like, and the growth and financial potential
    - Workforce centers need more information about the training available to job seekers to prepare them for open advanced manufacturing jobs
    - Employers don't know the full scope of where to find talent outside of their go-to's

Phase 2: Pathway Design and Implementation

Building on the demand, skills, and training gaps identified in Phase 1, partners moved from assessment to implementation by establishing an initial talent strategy, expanding training in priority areas, and developing a connected regional framework to support learners, employers, and workforce partners.

Talent Strategy Established and Training Launched

The initial talent strategy focused on increasing the depth of the regional talent pool by expanding accessible training in priority occupations. Employers and partners selected the America's Cutting Edge machining curriculum, which had been successfully implemented in other states, as the foundation for a new CNC Machining Bootcamp. The approach built on RRCC's existing machining program and available training facilities to create a shorter, more accessible entry point into the field.

The resulting 32-hour, in-person CNC Machining Bootcamp was launched in January 2026 and delivered three times at RRCC and twice at CoorsTek by August 2026. Across the five deliveries, 47 participants completed the course, nearing the initial expectation of adding approximately 40 training seats annually with at least one additional delivery planned for 2026. Learners could also complete a six-hour online introductory course to build foundational knowledge and determine whether they wanted to pursue the machining pathway further.

The bootcamps also strengthened connections between training and employment. Participating employers visited classes to introduce their organizations, discuss career opportunities, and observe what students were learning. Some learners continued developing their skills through the online Composites and Metrology courses, which will remain available.

In parallel, Warren Tech and Red Rocks Community College began designing a joint Mechatronics program supporting aerospace, quantum, and related manufacturing pathways. The program remains on track to launch in fall 2027 and is expected to include four high school courses, each leading to a certification and

three offering concurrent-enrollment credit. Drafted courses include Electronics DC/AC, Robotics and Automated Systems, Analog Electronics and Robotics, and Robotics Mechatronics Technology.

These efforts turned shared workforce priorities into action: delivering training, connecting learners directly with employers, and laying the groundwork for additional pathways that can evolve with the region's needs.

Pathway Development

On May 21, 2026, employers, education and training providers, workforce partners, and community organizations reconvened at RRCC to review the work completed to date and advance the next phase of the project. Participants examined the training landscape across the six priority roles and confirmed the final set of programs to be incorporated into the pathways.

The convening reinforced four themes from the earlier assessment:

- The region already has valuable training assets, but they can be difficult for learners, workforce professionals, and employers to navigate as a connected system.
- Programs must be clearly connected to the skills employers identified and to the specific roles and advancement opportunities they support.
- Learners need multiple entry points based on their existing experience, interests, and readiness.
- Employers, education providers, and workforce partners need an ongoing feedback loop so pathways can evolve as skills and hiring needs change.

CareerFit Colorado was also introduced during the convening as one possible way to connect the employer-validated pathways to job seekers. The discussion generated interest from RRCC Career Services and helped clarify how the platform could complement existing resources such as Connecting Colorado and Handshake.

Following the May meeting, EDL completed the detailed pathway design work, identifying the related programs and institutions that support the priority occupations. This work brought together the project's employer demand data, validated skills, training landscape, and career progression opportunities into a more cohesive regional framework.

Program Directory and AeroPath: Organizing and Visualizing the Training Ecosystem

In addition to the career pathway framework, EDL created a comprehensive directory of regional training programs and institutions. The directory identifies 31 training providers offering 68 programs, credentials, bootcamps, apprenticeships, and other educational opportunities across eight occupational pathways. These include the six critical roles plus Quantum Technician and Foundational Skills, which were separated to support additional credential-stacking opportunities. The directory shows the greatest number of participating institutions in Foundational Skills (18), Precision Machining (14), and Electrical Technician (13). RRCC has the broadest pathway coverage, with nine offerings spanning all eight pathways. The directory gives partners a detailed, sortable resource for understanding existing assets, identifying potential gaps, and connecting programs to specific occupations and career levels.

EDL also developed AeroPath to demonstrate how the directory and broader pathway information could be translated into a more intuitive experience for job seekers. The tool visually connects occupations, career progression opportunities, skills, training programs, and education providers, making the full body of project work easier to understand and explore.

AeroPath should be viewed as a visual representation and final demonstration of the project's pathway work. It has not been tested with users and is not intended for public distribution or ongoing use in its current form. Its value is in bringing the directory and pathway framework to life, showing what a more user-friendly navigation experience could look like, and informing similar functionality within a platform designed for long-term implementation.

CareerFit Colorado Pilot

In parallel with the EDL pathway work, the Greater Arvada Chamber piloted CareerFit Colorado as part of a broader statewide initiative facilitated by Colorado Thrives. The pilot is designed to help complete the continuous-improvement component of the TPM framework by creating a warmer handoff between participating employers and local job seekers. The platform uses AI-supported matching, prioritizes employer-validated training programs, and recommends active jobs from employers interested in engaging with emerging talent.

As of the end of Q3 2026:

- Four Verified Talent Provider programs had been added to the platform.
- Seven employers had been onboarded: Faustson, Barber-Nichols, CoorsTek, Sundyne, Lockheed Martin, Kratos, and TTM.
- 145 local job seekers interested in advanced and/or aerospace manufacturing had created profiles, 22 of which have completed the CNC Machining Bootcamp.

The initial implementation produced useful lessons. In particular, direct outreach to learners proved more effective than relying on instructors to introduce the platform.

The next stage will continue to build awareness and adoption among job seekers, employers, training providers, and workforce partners. The pilot will also seek employer feedback on whether participants from the validated programs are developing the skills needed to succeed in the workplace. If gaps emerge, partners can use that feedback to refine programs and strengthen alignment with employer needs. The team will also continue clarifying how CareerFit Colorado complements other workforce and education platforms.

Peer Community Leadership Exchange

The project's work ended with the Peer Community Leadership Exchange (PCLE) in Tucson and Pima County, Arizona, from August 25 through 28, 2026. Jeffco EDC presented the exchange in partnership with RRCC. Thirty-five Jefferson County business, education, government, and community leaders went to see how Southern Arizona built its economy around aerospace and advanced manufacturing and lined up its training systems behind that choice. The group spent a dedicated track on talent and workforce systems and visited Pima Community College and the University of Arizona. That gave participants a direct look at how a peer region connects employers, colleges and universities, and learners.

The exchange produced four clear talent outcomes:

- **A proven model for the RRCC facility plan.** Pima Community College paid for its $35 million Advanced Manufacturing Building without a voter-approved bond. It used capital investments, state funding, and operating revenue. Beyond its trade-specific labs, the college also built flexible warehouse-style space that employers now use for their own customized training. Participants named an advanced manufacturing facility at RRCC as the most

tangible result of the trip, since the location, partnerships, and momentum are already in place.

- **A clear case for designing around adult learners.** Jefferson County's population is aging, birth rates are falling, and overall population is declining. Participants concluded the county cannot rely only on traditional-age students. Pima's PimaFast Track program gives adults who work full time industry-recognized credentials on schedules built around their jobs. Participants saw it as a model RRCC and the broader Jefferson County pipeline could adopt directly. It also supports this project's focus on multiple entry points, such as the CNC Machining Bootcamp.
- **Confirmation of the employer-driven approach.** Pima's employer partners provide training, tuition assistance, and job placement, the same way RRCC's partners do. Participants called for closer alignment with industry from K-12 through college, including Warren Tech and RRCC, with employers helping fund and shape hands-on learning.
- **Momentum for cradle-to-career alignment.** The group showed strong interest in the Cradle to Career model, and participants asked how they can get involved and stay involved.

Conclusion: A Foundation for Continued Regional Alignment

This project demonstrated what is possible when employers, education providers, workforce organizations, economic development leaders, and community partners contribute their distinct expertise toward a shared goal. Phase 1 created clarity about demand, priority roles, required skills, and training gaps. Phase 2 used that foundation to establish an initial talent strategy, launch training, organize career pathways and programs, visualize the regional training ecosystem, and begin testing stronger connections between validated training and employment.

The resulting employer-validated skills, career pathways, program directory, AeroPath demonstration, expanded training opportunities, and CareerFit Colorado pilot provide tangible assets as well as practical lessons about what it takes to build a connected regional talent system.

A final phase, led by RRCC, is now underway and focuses on developing the Collaborative Funding and Aerospace Manufacturing Facility Plan, the grant’s third major deliverable. This work will build on the priorities, partnerships, and regional assets identified through the first two phases to explore how the necessary training capacity and infrastructure can be supported over the longer term.

Sustaining the project’s impact will require continued employer feedback, provider responsiveness, direct learner outreach, coordination across existing workforce and education platforms, and clear ownership for keeping pathway and program information current. Most importantly, the project leaves Jefferson County and its regional partners with a stronger common language, deeper relationships, and a more coordinated roadmap for helping learners access living-wage aerospace and advanced manufacturing careers while helping employers develop the skilled workforce they need.