



Building Stronger Pathways into Critical Manufacturing Occupations

Results from the NoCo Manufacturing Partnership

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*Partners working passionately to
ensure northern Colorado
manufacturers and our communities
thrive.*



Manufacturing Talent Committee: The Goal

- Improve the manufacturing talent pipeline in Northern Colorado by understanding and addressing high-priority skills gaps
- Pilot implementation of the Step-by-Step Guide to Creating Career Pathways in Colorado



CREATING CAREER PATHWAYS IN COLORADO

A STEP-BY-STEP GUIDE
VERSION 2.0



The Process

1. Identify and Understand Skills Gaps

- Identify critical occupations using Bureau of Labor Statistics and interactive discussion among manufacturers
- Deeply understand underlying knowledge, skills, and abilities required in those occupations in “skills panels” with:
 - Hiring authorities who directly hire for the targeted occupation
 - High-performing employees in those occupations
 - Education and training partners invited to listen in

2. Create and Implement Talent Development Action Plan



Critical Occupations

- ✓ Machinists (including tool and die operators)
- ✓ Welders
- ✓ Assemblers
- ✓ Technical sales representatives
- ✓ Engineers
- ✓ Production managers

For each occupation, detailed profiles were developed including feedback on the most important knowledge, skills and abilities, contextualized tasks and functions, and example pathways into the occupation



Key Findings

1. It's not a ladder, it's a solar system.

Pathways into manufacturing careers should be flexible, allowing students and workers to build skills while discovering what occupations are a good fit for their aptitudes and personalities.



2. Entry-level employees need stronger essential, work readiness skills, as well as foundational technical skills.



Key Findings Continued

3. For skilled and specialized occupations, employees need broader knowledge to help them contextualize and solve problems
4. Entry-level engineering employees need more hands-on experience on the shop floor.
5. *Continuous conversations and ongoing collaboration between educators and manufacturers is critical to ensure workers are prepared effectively.*



Adapting Curriculum to Meet Industry Demand

- ✓ Regional advisory committee to supplement the Perkins requirements and expand conversation about industry needs and trends
- ✓ Creating a library of real-life industry “problems” growing skills in problem-solving and teamwork



Expand Work-Based Experiences for Students



PROJECT BASED	INTERNSHIP	APPRENTICESHIPS
<ul style="list-style-type: none">• Easiest• Requires the least supervision• Typically unpaid	<ul style="list-style-type: none">• Longer term• Unlimited variety of positions• Paid or Unpaid	<ul style="list-style-type: none">• More complex• Ongoing employee up-skilling efforts• Paid

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The prospect provides some value while learning new skills and moves on to be hired elsewhere.



The prospect evolves into a skilled hire that fits your culture and company needs.



Strengthening Capacity and Connections of Education and Training Providers

Front Range Community College and Colorado State University are exploring how we might collaborate to create options for high school students, entry –level employees or career changes to find their way into manufacturing.



Questions?

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