Youth Apprenticeship
After months of complex systems innovation and business and student recruitment, CareerWise Colorado launched its inaugural class of modern youth-apprentices in June of 2017.

### JUNE 2017

<table>
<thead>
<tr>
<th><strong>1</strong></th>
<th><strong>2</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Statewide Youth-Apprenticeship MARKETPLACE</strong></td>
<td><strong>CHARTER SCHOOLS</strong></td>
<td><strong>Communities</strong></td>
<td><strong>Pathways</strong></td>
</tr>
<tr>
<td></td>
<td>STEM School &amp; Academy, CEC Fort Collins</td>
<td>Front Range, Western Slope &amp; Northern Colorado</td>
<td>Manufacturing, Technology, Business Operations &amp; Financial Services</td>
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<td></td>
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<td></td>
<td><strong>116</strong> Youth Apprentices</td>
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<tr>
<td><strong>Confirmed Employers</strong></td>
<td><strong>Occupational TRAINING Plans</strong></td>
<td></td>
<td><strong>40</strong></td>
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<tr>
<td><strong>4</strong></td>
<td><strong>10</strong></td>
<td><strong>3</strong></td>
<td><strong>4</strong></td>
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<tr>
<td><strong>SCHOOL DISTRICTS</strong></td>
<td><strong>Community</strong></td>
<td><strong>Confirmed Employers</strong></td>
<td><strong>Pathways</strong></td>
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<tr>
<td>Cherry Creek, DPS, Jeffco and Mesa 51</td>
<td><strong>Low-Income, Non-Profit Private School</strong></td>
<td>Arrupe Jesuit</td>
<td>Manufacturing, Technology, Business Operations &amp; Financial Services</td>
</tr>
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</table>
Recruiting, hiring & training costs Colorado businesses $24K+ per employee

Middle-skilled positions take 15% longer to fill in Colorado compared to the national average\(^1\)

RECRUITING EMPLOYEES

An estimated 25,000 weekly job vacancies in high-growth industries go unfilled because of a LACK OF SKILLED WORKERS, costing the state more than $300 million in lost GDP\(^2\)

\(^1\) Burning Glass Technologies, Interim Deliverable, “Overview of Colorado’s Middle-Skill Job Market”; Colorado
\(^2\) CPR.org, “Colorado Unveils $9.5M Youth Apprenticeship Program”, September 2016
APPRENTICESHIP PROGRAMS

HAVE PROVEN TO HELP BUSINESSES RECRUIT, TRAIN, AND RETAIN THE BEST TALENT

40-50%
Rate of return on apprenticeship programs for rural health centers and urban manufacturers\(^1\)

30-50%
Conversion to full-time employees based on cohort size\(^2\)

20-40%
Reduction in long-term hiring costs\(^2\)
HERE’S HOW IT WORKS.

CAREERWISE APPRENTICES SPLIT TIME BETWEEN SCHOOL, TRAINING CENTERS, AND WORK ON A SCHEDULE THAT WORKS FOR YOUR BUSINESS

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
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</thead>
<tbody>
<tr>
<td><strong>AT HIGH SCHOOL</strong></td>
<td>~3 days a week</td>
<td>~2 days a week</td>
<td>NA</td>
</tr>
<tr>
<td>Core academic courses at school (e.g., math), some community college coursework</td>
<td></td>
<td></td>
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<tr>
<td><strong>ON-THE-JOB</strong></td>
<td>16 hours a week</td>
<td>24 hours a week</td>
<td>32-40 hours a week</td>
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<tr>
<td>On the job training, in form of occupation, rotation or projects</td>
<td></td>
<td></td>
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<tr>
<td><strong>AT TRAINING CENTER</strong></td>
<td>~150 hours a year</td>
<td>~175 hours a year</td>
<td>~200 hours a year</td>
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<tr>
<td>Multi-skill training curriculum in pathway-specific skills</td>
<td></td>
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</table>
FIVE PRIMARY PATHWAYS

THESE STARTER PATHWAYS LEAD TO A VARIETY OF OCCUPATIONS

ADVANCED MANUFACTURING
CNC machinist
Electro-mechanical assembler
Quality control inspector
Maintenance technician

INFORMATION TECHNOLOGY
Computer Technician
Software QA Tester
Junior Coder

FINANCIAL SERVICES
Accounting Clerk
Insurance Services Expert
Financial Coordinator
Customer Support

BUSINESS OPERATIONS
Project Coordinator
Purchasing Coordinator
Operations Specialist

HEALTHCARE
LAUNCHING FOR 2018/19 CLASS

SAMPLE OCCUPATIONS
University of Colorado Denver

SAMPLE BUS. PARTNERS
CoorsTek
Arrow
InterTech Plastics
Nordson
Home Advisor

Pinnacle
EKS&H
Colavria Hospitality
Skillful
Western States Fire Protection Co.
Hire apprentices to fill challenging, entry-level roles

Provide students with the experiences and training needed to evolve into full time employees capable of filling critical positions

Provide apprentices with occupation and industry specific skills required by their employer

Supplement workplace experiences with targeted technical/functional instruction

Continues to provide core academic instruction to apprentices

Supports development of foundational interpersonal and job skills
CareerWise Supports
1. Recruiting
2. Training Plan Development
3. Apprentice Training
4. Employer Training
5. Ongoing Program Support
CareerWise operates an online apprenticeship marketplace, providing the business with a one-stop shop for apprentice recruitment. CareerWise organizes apprenticeship recruitment events for business partners, including classroom visits, facility tours, and career fairs.
CareerWise works with each business partner to create a customized training plan that includes three components: a competency map, coursework map, and on-the-job training plan.
CareerWise ensures that all students are work-place ready by putting them through a week-long intensive professionalism boot camp at the onset of their apprenticeship.

CareerWise manages the process of identifying training centers and enrolling apprentices in their training center coursework.
CareerWise hosts half-day and full-day supervisor and coach training sessions to prepare the staff of our business partners to oversee successful apprenticeships.
CareerWise provides a dedicated staff member to each business partner who will serve their Relationship Manager.

CareerWise provides consulting support on HR policies and tools (e.g. onboarding, payroll, risk management).
PARTNERSHIP PROCESS

1. INITIAL DISCUSSION
   2017 spring / summer
   - Gain executive buy-in
   - Understand how CareerWise can alleviate your biggest hiring pain points
   - Designate a champion to lead future interactions

2. WORKING SESSIONS
   (as needed)
   2017 summer / fall
   - Identify potential business units & managers
   - Empower internal project manager to lead CareerWise engagement
   - Discuss training plans and appropriate occupations for your business

3. COMMITMENT
   By Nov. 15
   - Agree to key terms and features of program and sign MOU by Nov. 15 2017
   - Internal project manager works with CareerWise to begin implementation

4. DESIGN PROCESS BEGINS
   Jan 18
   CareerWise team (Curriculum Developers, HR Strategist, etc.) works with your business to develop and implement apprenticeship program
Swiss firms saw an ROI of 10% during the training period, and additional ROI once apprentices became full-time employees\(^1\).

**Projected Wages & Productivity, Relative to Standard FTE**

- **Wage and Value of Apprentice's Contribution to Production**
  - Apprentice Wage
  - Employer Costs
  - Employer Productivity
  - MP = Marginal Product of Labor

**Employer's Benefit**
- During Apprenticeship
- After Apprenticeship
- Experienced Worker Wage

**Period of Apprenticeship**
- Experienced Worker

\(^1\) Wolter et al (2006)
**PROGRAM COSTS**

The business partner pays the apprentice at an hourly rate of minimum wage or higher.

The apprentice will likely work 16 hours in Year 1, 24 hours in Year 2, and 32 hours in Year 3, with potentially more hours possible during summers when school is out (summer hours decisions are at discretion of employer/apprentice).

**APPRENTICE WAGE**

The business partner covers the cost of training center tuition each year. Total training costs, including the CareerWise Business Participation fee, will not exceed $5000/year per apprentice.

The training center contribution will vary depending on the size of the apprenticeship cohort. For example, the Year 1 training center contribution for the 2017 Advanced Manufacturing pathway was $2,000.

**TRAINING COSTS**

Business partners also pay CareerWise an annual per-apprentice Participation Fee as part of the training costs. The fee is assessed based on the associated table.

<table>
<thead>
<tr>
<th>APPRENTICES IN COHORT</th>
<th>PER-APPRENTICE FEE*</th>
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<tbody>
<tr>
<td>9 or less</td>
<td>$500/year</td>
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<tr>
<td>Between 10 and 24</td>
<td>$400/year</td>
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<tr>
<td>25 or greater</td>
<td>$300/year</td>
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*The Per-Apprentice Fee is charged at the end of each program year based on the number of apprentices in your cohort according to the above table. Your total invoice will be due by July 01 in 2019, 2020, and 2021.

**NEW PATHWAYS HAVE THE FIRST YEAR OF THE PARTICIPATION FEE WAIVED.**