Colorado’s Talent Landscape

Colorado’s Talent Pipeline Report
- Lauren Victor, Ph.D.

State and Regional Strategies to Grow Colorado’s Talent Pipeline
- Emily Templin Lesh

Conversation with Lt. Governor Garcia and Executive Director Golombek
- Moderated by Stephanie Steffens
THE COLORADO TALENT PIPELINE REPORT
PRESENTED TO THE COLORADO STATE LEGISLATURE JANUARY 2, 2015

https://www.colorado.gov/pacific/cwdc/colorado-talent-pipeline-report
Colorado Adult Educational Attainment

- 22.8% Some college, no degree
- 22.0% High school graduate
- 23.6% Bachelor's degree
- 9.6% Less than high school
- 13.7% Graduate or professional degree
- 8.3% Associate's degree
Colorado Postsecondary Education by Residency

31.5% Does not have postsecondary education
68.5% Has postsecondary education

72.7% Born outside of Colorado
27.3% Colorado native
Educational Attainment Levels by Residency

- **Colorado-Born in Colorado and residing in CO**
  - Less than high school graduate: 9%
  - High school graduate (or equivalency): 28%
  - Some college or associate's degree: 35%
  - Bachelor's degree: 19%
  - Graduate or professional degree: 8%

- **United States-Born in state of residence**
  - Less than high school graduate: 11%
  - High school graduate (or equivalency): 33%
  - Some college or associate's degree: 31%
  - Bachelor's degree: 16%
  - Graduate or professional degree: 8%

- **United States overall educational attainment**
  - Less than high school graduate: 14%
  - High school graduate (or equivalency): 28%
  - Some college or associate's degree: 29%
  - Bachelor's degree: 18%
  - Graduate or professional degree: 11%
Educational Attainment Behavior by Race/Ethnicity

- Enrollment Rates from High School Direct to College
- Graduation Rates from College (degree earned within 150% of standard program time)
- Percent of Adults with Postsecondary Degree

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Enrollment Rate</th>
<th>Graduation Rate</th>
<th>Postsecondary Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>71%</td>
<td>61%</td>
<td>52%</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>61%</td>
<td>52%</td>
<td>34%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>54%</td>
<td>34%</td>
<td>35%</td>
</tr>
<tr>
<td>American Indian</td>
<td>42%</td>
<td>44%</td>
<td>19%</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>63%</td>
<td>62%</td>
<td>52%</td>
</tr>
</tbody>
</table>
Hispanic Share of Colorado Population by Age Group

- <18: 31% (2010), 45% (2040)
- 18 to 24: 25% (2010), 41% (2040)
- 25 to 44: 22% (2010), 36% (2040)
- 45 to 64: 13% (2010), 26% (2040)
- 65+: 10% (2010), 19% (2040)
## Unemployment and Earnings by Education Level

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Unemployment Rate</th>
<th>Median Earnings ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school graduate</td>
<td>8.9%</td>
<td>21,624</td>
</tr>
<tr>
<td>High School graduate</td>
<td>4.7%</td>
<td>30,011</td>
</tr>
<tr>
<td>Some college or associate’s degree</td>
<td>4.4%</td>
<td>33,594</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>3.1%</td>
<td>46,891</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td></td>
<td>61,730</td>
</tr>
</tbody>
</table>
“Top Job” Openings by Typical Entry Level Education
above average growth + high openings + sustainable wage

- 45% Bachelor’s
- 11% Associate’s
- 9% Non-degree/ Some college
- 7% Apprenticeship
- 9% Moderate OJT
- 2% Long OJT
- 6% Doctorate/ Professional
- 4% HS/Experience
- 4% Short OJT
- 3% Master’s
“Top Job” Opportunities

Share of Openings in Top Jobs List by Occupation Cluster

Examples of Occupations from List

<table>
<thead>
<tr>
<th>Skilled Trades</th>
<th>Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenters</td>
<td>Accountants and Auditors</td>
</tr>
<tr>
<td>Electricians</td>
<td>Credit Analysts</td>
</tr>
<tr>
<td>Industrial Machinery Mechanics</td>
<td>Financial Analysts</td>
</tr>
<tr>
<td>Plumbers, Pipefitters, Steamfitters</td>
<td>Personal Financial Advisors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Healthcare</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Hygienists</td>
<td>Computer Network Architects</td>
</tr>
<tr>
<td>Occupational Therapists</td>
<td>Computer User</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>Support Specialists</td>
</tr>
<tr>
<td>Physician Assistants</td>
<td>Software Developers</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>Web Developers</td>
</tr>
</tbody>
</table>

Management, 12%
Business/Finance, 14%
IT, 13%
Construction/Extraction, 16%
Healthcare, 15%
Arts/Media/Design, 1%
Education, 1%
Legal, 3%
Community/Social Services, 3%
Life/Physical/Social Sciences, 2%
Installation/Maintenance/Repair, 3%
Production, 0%
Transportation/Material Moving, 5%
Office/Administrative Support, 1%
Building/Grounds Cleaning and Maintenance, 1%
Sales, 4%
Production, 0%
Skilled Trades                  Finance
High Ranking O*NET Skills across Key Industry

**Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

**Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

**Complex Problem Solving** — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

**Judgment and Decision Making** — Considering the relative costs and benefits of potential actions to choose the most appropriate one.

**Reading Comprehension** — Understanding written sentences and paragraphs in work related documents.

**Speaking** — Talking to others to convey information effectively.

For more information, visit: [http://www.onetonline.org/skills/](http://www.onetonline.org/skills/)
Our conventional concept of a talent pipeline is the progression of our high school graduates who enroll directly in college, complete a credential, then enter our workforce, as depicted below...

- Of 100 Colorado 9th graders...
- 77 graduated on-time from high school
- Of these graduates, 44 enrolled in college that fall—34 of these students enrolled at an in-state college
- 23 students completed a postsecondary credential within 150% of standard program completion time
- 35 students returned for their 2nd year of college
- 18 of these graduates then entered employment in CO within the year following graduation
- 18% of Colorado on-time high school graduates go straight to college, earn a credential, then immediately enter our workforce

Colorado’s Workforce
Jobs that typically require an undergraduate credential for entry
- College graduates from Colorado institutions
- Other college graduates from other states who enter the Colorado workforce

Colorado’s Workforce:
- College graduates from Colorado institutions
- Other college graduates from other states who enter the Colorado workforce

- Training & support
- On any given day, 4,822 offenders utilize a DOC education program

Talent Pipeline
...but it is also important to understand the numerous points of entry into education/training opportunities and/or our state’s workforce.

Some students complete high school in 5 or 6 years
This increases the annual B.S. graduation rate by 6%, or approx. 1,688 more students

Enter workforce
Don’t complete high school
Complete GED

- Follow high school graduation, directly enter the workforce
- Enter postsecondary program at a later time

- Colorado’s Workforce:
- Jobs that typically require an undergraduate credential for entry
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Pursue an apprenticeship
There are over 4,700 apprentices currently participating in Registered Apprenticeships. In FY2014, 620 apprentices completed a BA; many others completed various types of apprenticeship programs

Enroll at a private occupational school
Last year, 1,996 associate’s degrees and 23,489 diplomas/certificates were awarded by these schools

Follow high school graduation, directly enter the workforce
- Enter postsecondary program at a later time
- Leave Colorado for other opportunities

Do not return
Imported talent from other states and countries

*This visual exemplifies some of the numerous pathways one may follow, and as we recognize this is not necessarily an exhaustive selection of all possibilities. Points without data may reflect data limitations.
Members and Partners

- Colorado Business & Industry Representatives
- Governors Office – Office of John Hickenlooper
- CDLE – Colorado Department of Labor & Employment
  - Workforce Development Programs
  - Colorado Workforce Centers & LWIBs
- OEDIT – Colorado Office of Economic Development and International Trade
- CDHE – Colorado Department of Higher Education
  - CIC – College in Colorado
  - CCCS – Colorado Community College System
- Governors STEM Action Plan – A partnership with Colorado Education Initiative
- CDE – Colorado Department of Education
  - K-12 and Adult Basic Education
  - Colorado Public Library System
- CDHS – Colorado Department of Human Services
- DOC – Colorado Department of Corrections
- DOLA – Colorado Department of Local Affairs
- CEO – Colorado Energy Office
- CDA – Colorado Department of Agriculture
- CDPHE – Colorado Department of Public Health and Environment
- OIT – Colorado Office of Information Technology
- EDCC – Economic Development Council of Colorado
- Rocky Mountain Workforce Development Assn.
Creating Colorado’s Workforce of the Future

**Vision:** Every Colorado business has access to a skilled workforce and every Coloradan has access to meaningful employment, resulting in statewide economic vitality.

**Mission:** To create and sustain a business-led Colorado talent system that appropriately integrates the work of economic development, education, training and workforce development to meet the needs of businesses, students and job-seekers.

**Members & Partners**
Led by Colorado businesses, and driven by a powerful collaboration of state agencies, regional & community organizations

**Markets**
- Businesses
- Students
- Out of School Youth
- Adults
- Special Populations

**Strategic Focus Areas**
- More Colorado Jobs & Employment
  - Increased Capital Investment
- Talented & Competitive Workforce
  - Customer Satisfaction
  - Increased Employment Diversity

**Statewide Initiatives**

**Key Industry Networks**
- 14 Key Industry Networks
- Led by the Governors Office of Economic Development
- Championed by Industry Assn’s
- Umbrella for state-wide industry collaboration

**Sector Partnerships**
- 37 Regional / Industry Specific
- Led by Colorado Dept. of Labor
- Championed by Industry
- Convened by Workforce, Education and Economic Development
- Informs KSA for Career Pathways

**Career Pathways**
- Occupation specific
- Led by Education
- Developed to meet industry identified needs
- Built regionally, scaled statewide
- Integration of STEM Action Plan

**State’s ROLE**

**Foundation**

- Governor Hickenlooper’s bottom-up economic development plan
- Commitment to collaboration from all State Agencies and Partners
- Empowerment & Support of and by Local and Regional Partners
What is a Career Pathway?

Career pathways offer a clear sequence of coursework and credentials aligned with the natural paths of advancement in and industry.

- Engage regularly with employers
- Coordinate among multiple education and training providers
- Not programs but are systems
Sector Partnerships: The Keystone to Connecting Career Pathways to Industry Cluster Growth

Sector Partnerships align education and training programs with industry needs to produce readily-employable workers.
Industry-led Career Pathways in Action: NoCo Manufacturing Sector Partnership

NoCo Manufacturing Vocational and Technical Skills Committee

• Education and business collaborating
• Facilitating skill panels of 10 critical occupations in NoCo to identify KSAs (Knowledge, Skills, and Abilities):
  • Assembler
  • Machinist
  • Tool/Die Maker/Senior Machinist
  • Technicians
  • Welder/Fabricators
  • Quality Control Analysis
  • Engineering Technician
  • Engineers
  • Managers
  • Sales
Colorado’s Talent Landscape

Conversation with Executive Director of Higher Education, Lt. Governor Joe Garcia & Executive Director of Labor and Employment, Ellen Golombek