

# Colorado's Swiss Apprenticeship Model

## A Letter from Governor Hickenlooper

Colorado has the best economy in the country (U.S. News and World Report) and the lowest unemployment rate in the nation at 2.3% in April 2017. At the same time, we have thousands of jobs that go unfilled every week, from construction to health care to technology and everything in between. Colorado employers here identified a lack of qualified candidates "with the right skills" as the primary reason for not filling hundreds of middle skill positions.

We know that one of the most effective ways to get adults and youth into jobs is to give them real world experience. Work-based learning combines skills training with related employment in real life settings. Apprenticeships and other work-based learning opportunities are a foundational piece of creating and maintaining a talent pipeline for Colorado's businesses.



Colorado Workforce  
Development Council



## A Skilled Workforce is a Critical Economic Driver

A skilled workforce remains the most important driver for our state's future competitiveness. We have laid a strong foundation for building the Colorado talent pipeline. Through the Workforce and Education Committee of the Governor's Cabinet, we have brought together the relevant government agencies to work as a single unit, with shared goals, to avoid duplication of effort, effectively use resources and focus on the needs of business in Colorado. Then, two years ago, we created the Business Experiential Learning (BEL) Commission, which is composed of business leaders from in-demand industries across Colorado along with state leadership, and it is tasked with developing an apprenticeship and work-based learning system in Colorado that prepares students and individuals with the skills needed to meet the demands of the state's economy.



*Pilatus Apprentice Presents to Gov. Hickenlooper and BEL Commissioner*

The members of this Commission, along with representatives from our education system, foundations and other state agencies, joined me on a five day trip to Switzerland in January 2016 to experience the Swiss apprenticeship system firsthand. Fifty of us embarked on this journey and returned to Colorado determined to adopt and adapt the Swiss Model here in our state.



*Pilatus Apprentice Teaches Gov. Hickenlooper and Jon Kinning*

As a result, we are focusing on building out apprenticeships in a statewide, systemic manner. We are integrating the importance of apprenticeships and work-based learning at all education levels and for the current workforce who may need to upskill or reskill to better fill the jobs of today.



## The Role of Business

We learned that with apprenticeships, businesses become producers of talent, not just consumers of talent (and not just advisors or critics of education). Apprenticeships bring together key workforce stakeholders, working collaboratively to build a talent pipeline in which all partners succeed.

Education becomes competency-based, not course-based. Students become productive contributors to society and build their self-worth business and education collaborate to create a relevant and agile workforce Higher education becomes part of lifelong learning- not simply the next step after high school. Careers become the focus of educational outcomes Career exploration becomes a focus earlier in education (elementary and middle school).



## Forming Strategic Partnerships

Colorado is developing industry-led, competency-based, career pathways including work-based learning opportunities. We have developed tools and programs through public-private partnerships including CareerWise Colorado (more below), Skillful, the work-based learning unit at CDLE, Sector Partnerships, our Workforce Centers and state workforce council and the BEL Commission.

Sector partnerships have been active in Colorado for over ten years, and they serve as a great foundation to build work-based learning because we have ready pools of businesses prioritizing what they need to be successful. These partnerships act as a coordinating body across multiple education, workforce development and economic development programs.

Skillful is a partnership with the Markle Foundation, LinkedIn and the state of Colorado to help build a skills based labor market for today's digital economy. It's helping connect workers to good paying, middle skills jobs by providing them with opportunities and training options for a meaning career path - and helping businesses find the skilled talent they need to grow.

Our Colorado Department of Labor and Employment (CDLE) established a Work-Based Learning (CDLE-WBL) unit to coordinate and align federal, state and local strategies. They are working with existing apprenticeship programs to determine their needs, and help with recruitment, skill assessment, training, and with sector partnerships and industry/trade associations to develop new apprenticeship programs. They are also focusing on developing "nontraditional" industries for apprenticeships that are in demand in Colorado.

**A prime example of an apprenticeship program in Colorado, focused on youth, is CareerWise Colorado (CWC).**





## Overview of CareerWise Colorado

**CWC** is a stand-alone nonprofit that acts as an intermediary to assist businesses in meeting their talent needs through paid apprenticeships - beginning in high school. CareerWise embodies the idea that businesses should lead the effort to ensure our education system prepares students for the competitive, global 21st century economy. CareerWise Colorado believes business associations and professional organizations should identify core competencies and skills necessary for success in the workplace. Career pathways include jobs in Financial Services, IT, Health Care, Advanced Manufacturing, Business Operations and Hospitality.

Within the CareerWise program, there are currently three-year apprenticeships in Tech, Financial Services, Business Operations, and Advanced Manufacturing and apprenticeships in health care will be added in 2019. There are 10 training plans agreed upon by business coalitions in Accounting, Insurance,

# 20,000

**Students will be apprentices by 2027**

Machining, Computer Technicians and Project Coordination. Each apprenticeship training plan includes an industry credential, 25-60 college credits, educational partners include four school districts, two charter schools and one inner-city nonprofit private school. Sixty businesses are offering apprenticeships to high school juniors across Colorado beginning Fall 2017 and 20,000 students will be apprentices by 2027 (~125 to participate in professionalism bootcamp June 2017).



## Moving the Work-Based Learning Model Forward

**C**areer exploration and real-world work experience through apprenticeships allow students to make more educated decisions about their higher education options thus reducing the amount of unnecessary credits they spend time and money and increasing their likelihood of success. From the employer's perspective, by working with youth, they are building a pipeline that is more innovative, agile, and cost effective. Training should be productive which results in a positive ROI at the end of the apprenticeship. There is no loss to a company when an apprentice leaves, there is increased profitability when they stay.

In an effort to help companies begin apprenticeship programs in Colorado, the CDLE-WBL Unit (along with local workforce center staff) and CareerWise are partnering to streamline the process for creation and expansion of apprenticeship programs within businesses and with business coalitions. By serving as consultants to businesses, they are providing support through the development, implementation and recruitment process. They work with our network of industry-led sector partnerships and statewide trade associations to maximize industry outreach. This work will result in a clear process for business, consistency across programs and expansion of the number and type of apprenticeships in Colorado.

Colorado's commitment to apprenticeships and work-based learning is unparalleled. We are approaching the issues on multiple fronts, engaging and involving our businesses and trade associations and empowering our education systems to build the workforce of the future.

## Success Story

Mikron is a Swiss company, and was ready to begin with apprentices last year. They currently have three apprentices from Colorado's Cherry Creek School District. After a year of working together Mikron reports their youth apprentices are strong workers, in some ways stronger than adults they usually hire for entry level production roles both in terms of technical skills, in this case all three came with SolidWorks credentials, but also in terms of having a positive attitude about work. Students report they are learning technical skills, and how to be professional. They say they are more mature than their friends because in a professional setting, unlike a school setting, you see the negative and positive consequences of your choices-- and you have clear incentives to make good choices.

Denver Skyline



# Colorado's Focused Strategy for Economic Growth

Creating a diverse economy with Key Industries: Technology & Information, Aerospace, Bioscience, Energy and Natural Resources, Infrastructure engineering, Electronics, Advance Manufacturing.

Cultivating a hub for innovation and entrepreneurship with a rich R&D community supported by 31 universities and 21 federal laboratories.

## Workforce Facts



Colorado is the **2nd most highly educated state in the U.S.** and its workforce is projected to grow faster than the nation, most notably in knowledge-based jobs including engineering, computer, and professional services.



**5th in the U.S for the number of scientists and engineers** as a share of all occupations



Colorado's economy was **ranked number one in the U.S.** by the U.S. News & World Report.

## Business Facts



**At 3.2%, Colorado's annual GDP growth** is one of the highest in the nation. This trend continues into the most recent quarters.



Colorado has one of the lowest state **corporate income taxes at 4.63%**



Colorado is one of the fastest growing economies in the **U.S. with tech jobs increasing 3%**



In 2016, Forbes ranked Denver as the **#1 Best Place to Do Business** for the 2nd year in a row.



Colorado has the **2nd largest aerospace economy** in the U.S.



Colorado is **No. 5 among the states for fostering innovation through investments in education, research and business creation**, especially in highly specialized industries, according to a study by WalletHub.



**Pioneer a partnership with Colorado.**

[colorado.gov/cdle/apprenticeships](http://colorado.gov/cdle/apprenticeships)