



*White Paper*  
STRATEGIC PLANNING CYCLE  
2021-2023



# Executive Summary

## BACKGROUND AND EXECUTIVE SUMMARY

This report was prepared for the Arapahoe/Douglas Workforce Development Board (Board), and the Arapahoe and Douglas Boards of County Commissioners. Its purpose is to assess current and future workforce development needs for the Board's 2020-2022 Strategic Planning Cycle, particularly addressing public confidence in the workforce system, system sustainability and alignment of programs and partners.

This report will use the Strengths, Weaknesses, Opportunities, Threats and Trends (SWOTT) rubric to inform the Board and local elected officials of the current state of the one-stop service delivery system in Arapahoe and Douglas counties, and strategies moving forward to better address workforce development needs.

## OUR VISION

Our vision is a best-in-class workforce development organization that is responsive to the dynamic needs of job seekers and business/industry.

## OUR MISSION

Our mission is to strategically invest in Human Capital which contributes to regional economic vitality.

## WORKFORCE INNOVATION & OPPORTUNITY ACT OF 2014

In 2014, the Workforce Innovation & Opportunity Act (WIOA) was signed into law and authorized by Congress from 2015 through 2020. WIOA provided more competition, greater powers (and responsibilities) for the Board and created a system of mandatory partners that combine diverse workforce development efforts for special populations into a single 'one-stop service delivery system.'

In late 2018, the Board defined four strategic priorities for the next two years (WIOA Program Years 2019-2020). These priorities were as follows:

1. Creating and fostering business partnerships that bring the best return on investment back to the CCPR, which includes Arapahoe and Douglas Counties. Other counties in the CCPR include Adams, Broomfield, Boulder, Clear Creek, Denver, El Paso, Gilpin, Jefferson, Larimer and Teller. The four major urban areas that make up the Colorado Central Planning Region are Boulder, greater metro Denver, Fort Collins and Colorado Springs.
2. Building sound partnerships to collaborate with employment, education and economic development efforts to ensure economic vitality to the Arapahoe/Douglas region.
3. Creating an efficient and effective platform for servicing job seekers and the hardest-to-serve populations.

Strengthen long-term sustainability of the workforce development system by strategizing alternative funding options and enhancing communication locally, regionally and nationally.

## BOARD ACTIVITIES AND STAFF

During the last strategic planning cycle, it was determined that a Board staff team should be formed to be compliant with WIOA §107 (d), which calls for the Board to take the more proactive role in managing workforce development efforts. To this end, Arapahoe/Douglas Works!, the service provider, designated six staff to assist the Board in its new duties. These staff members are supervised by the Arapahoe/Douglas Works! Division Manager, who also acts as the Workforce Development Board Director.

Duties of the assigned staff are to assist the volunteer Arapahoe/Douglas Workforce Development Board in fulfilling its tasks set forth under WIOA:

- Create the local plan and contribute to the Colorado Central Planning Region (CCPR) plan.
- Conduct workforce research and local labor market analysis.
- Assist to convene, broker and leverage workforce development activities in the area.

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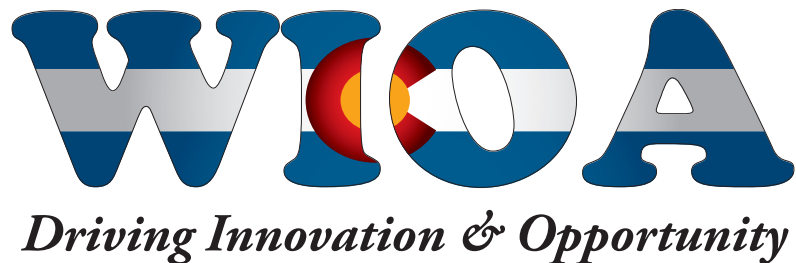
- Engage employers, which includes growing and maintaining Board participation in sector partnerships.
- Develop career pathways by ensuring that employment, training, education and supportive services are aligned, particularly for individuals with barriers to employment.
- Identify and promote best practices in workforce development.
- Develop strategies for using technology to maximize accessibility and effectiveness of workforce development in the area.
- Conduct program oversight, which includes ensuring compliance and continued one-stop certification..
- Negotiate performance accountability measures.
- Select operators and providers.
- Coordinate activities with education and training providers.
- Work with the Chief Elected Official to develop a budget congruent with the local plan.
- Ensure accessibility of services for individuals with disabilities.

## COMPETITIVE PROCESS

Thus far, the Board has gone through two competitive cycles in choosing a One-Stop Operator.

The Board's Standing Young Adult Committee has also gone through two competitive cycles to select vendors to provide a number of the elements of services listed under WIOA § 129 (c). The service provider, Arapahoe/Douglas Works! has selected a one-stop operator and young adult vendors to compliment service delivery.

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## STRENGTHS

Strengths are those factors internal to the Board that promote excellence, exert leadership at all levels, influence workforce development policy, drive improvement and ensure operational and fiscal compliance. The Board is one of the leading workforce development boards in the United States, and is well connected at the national, state and local levels. In addition to the standing committees required by law, it has two task forces which work to address workforce development issues and barriers for a variety of special populations including veterans, mature workers, economically disadvantaged, individuals with disabilities, justice involved and youth.

- It was one of the first workforce boards in the nation to develop a credible model for estimating the economic impact of workforce center operations year-over-year, and it has won numerous awards, including being recognized for excellence by the National Association of Workforce Boards in 2015.
- Arapahoe/Douglas Works!, is a leading performer in the state and nation in delivery of workforce development services.
- The Board also pioneered a business-tested approach for identifying and profiling key industries in the region, and is data driven, which has led to superior year-over-year business results from its service provider, Arapahoe/Douglas Works!
- The Board and its staff took a leadership role in creating a Workforce Intelligence Data Expert (WIDE) group, as well as being involved in the formation of statewide business services, career services and operator groups, all designed to align the workforce development system statewide and create continuous improvement in services and results.
- Because of its proficiency with labor force and economic impact data, Board staff have been asked to join a national group run by Josh Copus, former Vice President of the National Association of Workforce Boards and now current Director of Jobs for the Future. This group will create and disseminate best data practices at a national level.
- The Board has also diversified funding by creating more effective partnerships with the Arapahoe and Douglas County Departments of Human Services, as well as working with the Colorado Department of Human Services to create better partnerships with the workforce development system throughout Colorado.
- This year, the Board has been designated a high-performing board according to criteria developed by the Colorado Workforce Development Council (CWDC), and now has an new onboarding process for new members.



*This public-private partnership, which focuses on quality of life and place, has made the Denver Metro area one of the most diversified economies in the United States*

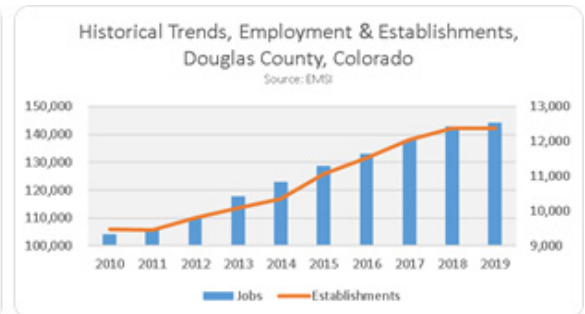
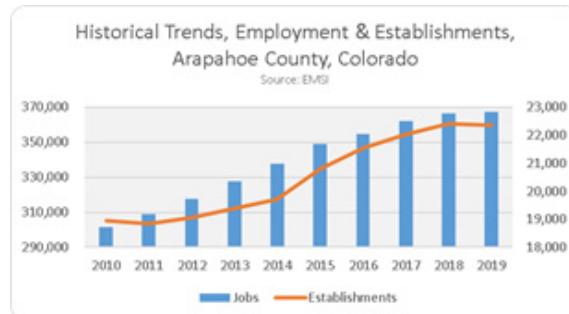
## Economy

- The regional economy is strong, growing and diverse.
- The regional labor force is highly educated, skilled and competitive.
- Greater metro Denver ranked in the top 5 U.S. cities for highest in-migration of skilled workers.
- U.S. News & World Report ranked Colorado as the #1 state economy for the second straight year.

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## Strengths in Regional Economy

The regional economy is strong, growing and diverse, and local economies in both Arapahoe and Douglas counties have experienced strong growth over the last decade. Arapahoe County added 65,784 jobs, a 2.2% annual growth rate. Douglas County added 40,070 jobs, a 3.7% annual growth rate.



Industries adding the most jobs in Arapahoe County:

- Ambulatory Care – 8,854 new jobs
- Professional, Scientific & Technical – 8,716 new jobs
- Food Service & Drinking Places – 6,219 new jobs

Industries adding the most jobs in Douglas County:

- Professional, Scientific & Technical – 5,276 new jobs
- Food Service & Drinking Places – 2,791 new jobs
- Ambulatory Care – 2,631 new jobs

Industries growing the fastest in Arapahoe County:

- Beverage manufacturing – up 11.5%
- Chemical manufacturing – up 9.5%
- Transit & ground transportation – up 9.2%

Industries growing the fastest in Douglas County:

- Crop production – up 36.4%
- Warehousing & storage – up 34.9%
- Data hosting & related – up 31.4%

This table shows sectors with the greatest employment concentrations relative to the United States (Location Quotient). Readers should note that Location Quotient can be read this way, “The information sector employs an estimated 25,398 people in Arapahoe and Douglas counties. This represents a concentration of employment 2.67 times greater than the average national concentration for employment in this industry.”

Regional Industry Growth Projections, Arapahoe & Douglas Counties									
NAICS Code	Description	2020 Jobs	2024 Jobs	Change	Annual Growth Rate (CAGR)	Average Worker Earnings	National Location Quotient Start Year	Payrolled Business Locations, 2018	
51	Information	25,398	26,566	1,169	0.9%	\$130,983	2.67	831	
52	Finance and Insurance	42,930	46,534	3,604	1.6%	\$118,739	2.04	2,650	
55	Management of Companies and Enterprises	12,609	13,609	1,000	1.5%	\$152,095	1.66	723	
54	Professional, Scientific, and Technical Services	55,142	59,911	4,770	1.7%	\$110,017	1.59	7,422	
23	Construction	38,455	41,461	3,006	1.5%	\$77,296	1.29	2,948	
53	Real Estate and Rental and Leasing	11,207	11,944	736	1.3%	\$74,976	1.26	2,046	
71	Arts, Entertainment, and Recreation	10,631	11,489	858	1.6%	\$54,390	1.16	449	
56	Administrative and Support and Waste Management and Remediation Services	36,177	37,736	1,559	0.8%	\$55,338	1.10	2,183	
44	Retail Trade	55,508	58,113	2,604	0.9%	\$39,953	1.07	2,666	
42	Wholesale Trade	20,097	20,991	894	0.9%	\$119,045	1.05	2,836	
81	Other Services (except Public Administration)	24,873	26,440	1,567	1.2%	\$37,433	1.00	2,673	
62	Health Care and Social Assistance	62,619	70,514	7,895	2.4%	\$66,902	0.93	3,220	
72	Accommodation and Food Services	41,295	44,169	2,874	1.4%	\$25,713	0.91	1,930	
90	Government	56,985	60,344	3,359	1.2%	\$64,829	0.73	222	
61	Educational Services	9,766	10,492	726	1.4%	\$41,343	0.72	558	
21	Mining, Quarrying, and Oil and Gas Extraction	1,060	1,043	(17)	(0.3%)	\$158,405	0.47	147	
48	Transportation and Warehousing	8,054	8,935	880	2.1%	\$61,135	0.41	502	
31	Manufacturing	11,306	11,847	542	0.9%	\$74,344	0.27	629	
22	Utilities	463	511	48	2.0%	\$130,807	0.26	18	
11	Agriculture, Forestry, Fishing and Hunting	602	648	46	1.5%	\$41,850	0.10	63	
	<b>Totals</b>	<b>525,176</b>	<b>563,299</b>	<b>38,122</b>	<b>1.4%</b>	<b>\$74,738</b>		<b>34,711</b>	

Source: BMSI – QCEW Employees, Non-QCEW Employees & Self-Employed Class of Worker

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*The two-county Arapahoe/Douglas area has nearly 52,000 people enrolled in college or graduate school, with another 60,717 in high school.*

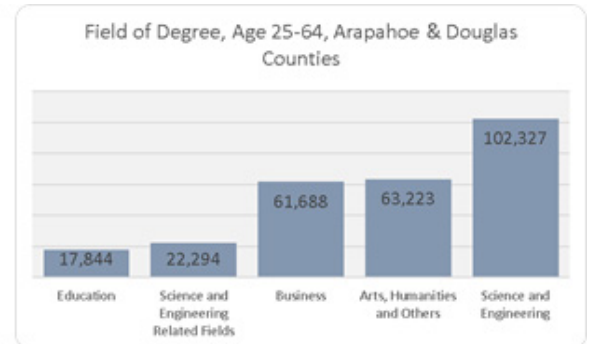
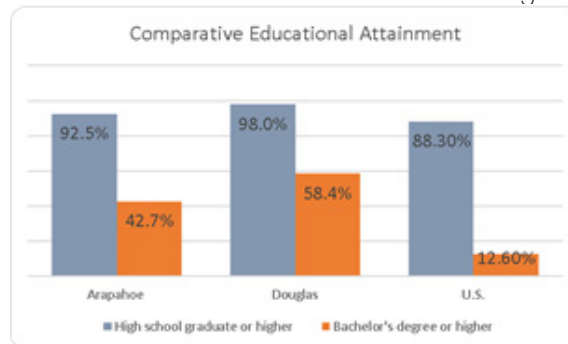
This table shows key industry sectors. It is sorted by percent of sector employment in Arapahoe and Douglas counties. For perspective on sector concentrations, there are 525,176 jobs in Arapahoe and Douglas counties. This is 21.3% of the total in the CCPR.

Key Sector	2020 Jobs Central Planning Region	Percent of Sector in Arapahoe/Douglas Area	Growth Projections, Key Industry Sectors				
			Arapahoe & Douglas Counties				
			2020 Jobs	2024 Jobs	Projected Annual Growth	Average Worker Earnings	2019 Payrolled Business Locations
Broadband	28,006	51.8%	14,501	14,973	0.6%	\$133,926	183
Finance & Insurance	110,199	39.0%	42,930	46,534	1.6%	\$118,739	2,650
Architecture & Engineering	46,541	27.1%	12,591	13,184	0.9%	\$125,224	815
Information Technology	97,649	25.6%	25,034	27,652	2.0%	\$134,658	2,785
Construction	164,219	23.4%	38,455	41,461	1.5%	\$77,296	2,948
Healthcare & Wellness	239,427	21.9%	52,493	59,477	2.5%	\$75,373	2,716
Hospitality & Recreation	276,076	19.6%	53,976	57,798	1.4%	\$32,218	2,485
Aerospace & Aviation	11,990	17.6%	2,108	2,370	2.4%	\$107,244	18
Biosciences	23,884	15.0%	3,593	3,998	2.2%	\$131,477	359
Manufacturing	120,849	9.4%	11,306	11,847	0.9%	\$74,344	629
Air Transportation	20,461	4.2%	867	928	1.4%	\$99,304	63
<b>Totals</b>	<b>1,139,301</b>	<b>22.6%</b>	<b>257,854</b>	<b>280,222</b>	<b>1.7%</b>	<b>\$86,407</b>	<b>15,651</b>

Source: EMSI QCEW, Non-QCEW & Self-Employed Class of Worker

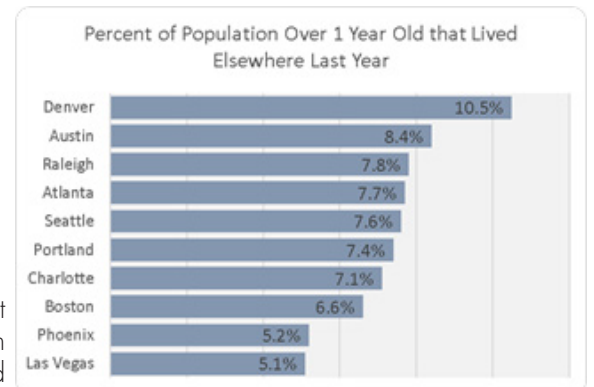
Note: Central Planning Region includes Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, El Paso, Gilpin, Jefferson, Larimer, & Teller Counties

Mirroring the CCPR, the labor force in Arapahoe and Douglas counties is well educated and highly skilled. The area has a high inventory of degreed persons in the 25-64 age range, and significantly higher educational attainment than the national average.



Level	Number
Nursery school, preschool	19,048
Kindergarten	13,068
Elementary school (grades 1-8)	107,089
High school (grades 9-12)	60,717
College or graduate school	51,780

Source: US Census



Besides a highly skilled and highly educated resident population, greater metro Denver is very much an opportunity city. It is a place where skilled and educated people can come and enjoy significant economic opportunity as well as a superior quality of life. Of the ten competing metropolitan areas shown in the bar graph, Denver has the highest number of people who lived elsewhere the year before.

Such high in-migration rates provide new and expanding businesses in the region with a ready supply of skilled labor.



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Regional Overview	CO - Central Planning Region	Denver-Aurora-Lakewood, CO	CO - Arapahoe/Douglas	Percent CO - Central Planning Region	Percent Denver-Aurora-Lakewood, CO
Population (2020)	4,423,932	3,015,775	1,023,938	23.1%	34.0%
Total Industry Jobs (2020)	2,467,011	1,698,265	525,233	21.3%	30.9%
Current Average Earnings	71,227	74,689	74,738	104.9%	100.1%
GRP (in billions USD)	\$306.1	\$222.9	\$71.0	23.2%	31.8%
Labor Force (Jul 2019)	2,425,278	1,687,034	567,530	23.4%	33.6%
Participation Rate (Jul 2019)	68.1%	69.6%	70.1%	102.9%	100.7%
Unemployment (Jul 2019)	66,444	45,341	15,048	22.6%	33.2%
Unemployment Rate (Jul 2019)	2.7%	2.7%	2.7%		

Source: EMSI Regional Data

## WEAKNESSES

Weaknesses are factors internal to the Board that may adversely affect its efforts to promote excellence, exert leadership at all levels, influence workforce development policy, drive improvement and ensure operational and fiscal compliance. The Board has potential weaknesses and is genuinely a national leader in workforce development, made so by the dedication and drive of its members and staff over the last decade. That said, there are some relatively minor concerns that with vigilance and effort can be turned to strengths.

- Due to significant budget cuts to various grants over the last several years, the Board, its staff and stakeholders in workforce development will increasingly be required to identify opportunities that arise in the local workforce development system, and meet these needs of these opportunities through additional partnerships and/or new grant fundings.
- Companies seeking to set up registered apprenticeship programs in key occupations have found a disconnect between local business services provided through the workforce development system and the centralized process offered by the U.S. Department of Labor. A recent statewide grant allowing Colorado to fund positions for two apprenticeship consultants will provide businesses locally-based technical assistance helping to increase industry-recognized registered apprenticeships. The consultants will be housed at Arapahoe/Douglas Works! and they will be supervised by the Colorado Urban Workforce Alliance (CUWA) Director.

## Economy

- Full employment market (at or below 4.7%) is exposing gaps in the labor force and training pipeline.
- Effects from the change in Colorado's minimum wage have been amplified by new legislation allowing municipalities to further raise minimum wage within their boundaries.
- Significant disparity in educational attainment levels for racial and ethnic minorities exists. This must be addressed due to accelerating growth in those populations within the labor force.
- Affordable housing is increasingly out of reach for middle skilled workers, which potentially dampens opportunity.
- The regional transportation infrastructure is not growing as fast as the economy.
- Colorado's budget structure is unsustainable.
- Regional student loan debt decreases demand for goods and services, particularly among the millennial generation.

## Weaknesses in Regional Economy

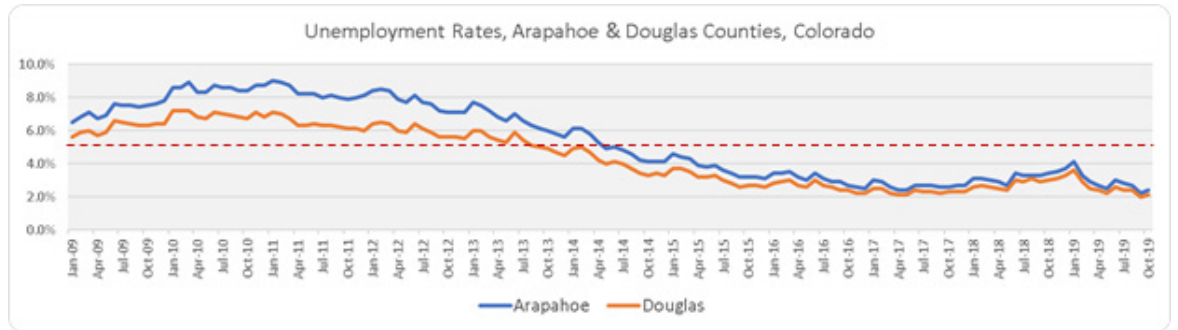
There are several significant weaknesses in the regional economy as well.

### Full Employment

Over the last decade, greater metro Denver has developed and executed a highly successful economic development strategy that has resulted in the influx of thousands of new jobs. Since at least 2012, the region has been on the 'short list' of places that are attractive to both national and international businesses seeking to expand or relocate.



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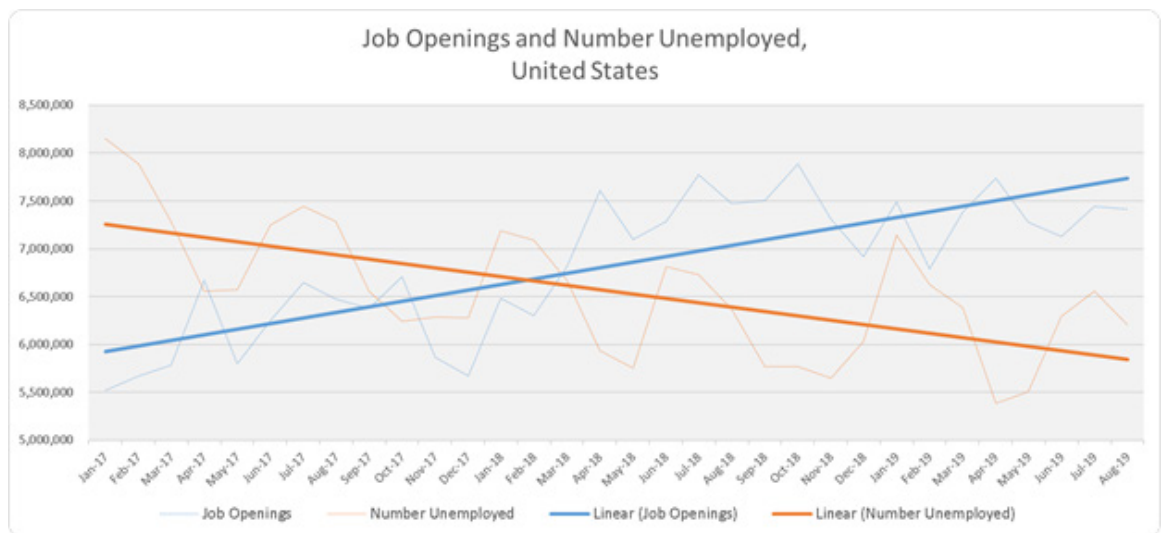


This has been a mixed blessing. While greater metro Denver, including Arapahoe and Douglas counties continue to be good places to do business, several significant issues have arisen that can potentially weaken the region's brand.

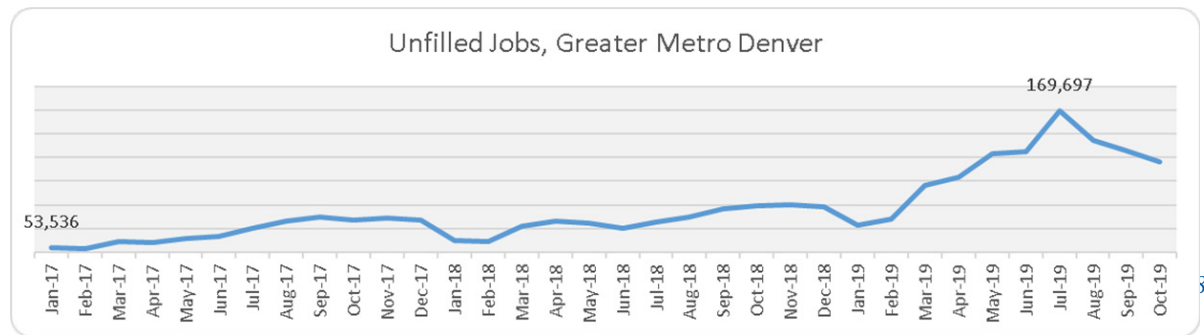
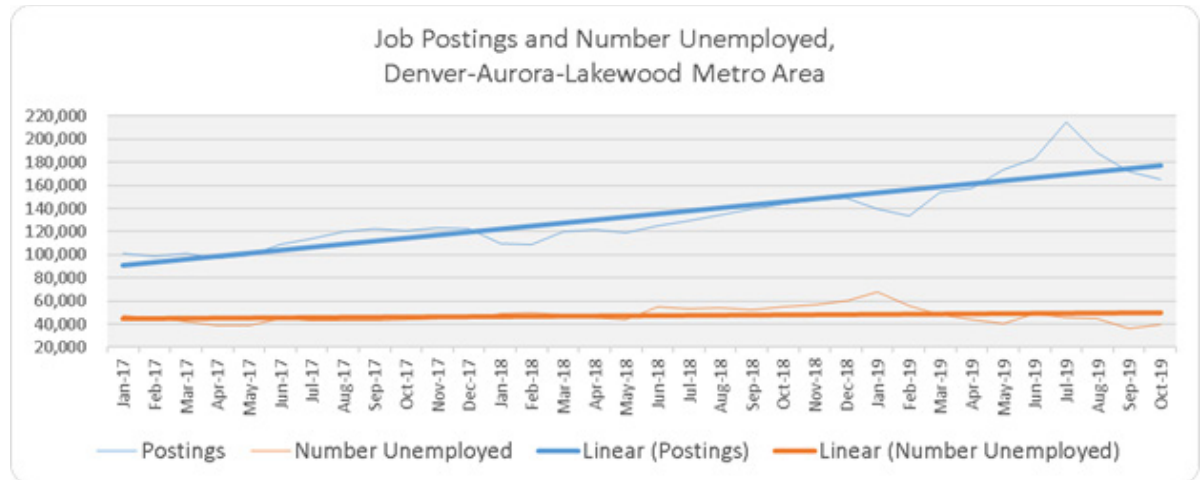
Greater metro Denver added 336,000 jobs between 2010 and 2019. As a result, since April 2014, unemployment in Arapahoe and Douglas counties has been under 4.7%, which is considered full employment. Full employment is defined as the lowest unemployment rate possible without causing inflation.

## Growing Labor Shortages

Nationally, the number of job openings exceeded the number of unemployed in early 2018, and the gap has been widening since. As of September 2019, there were over 1.6 million unfilled jobs nationwide. This has been true locally as well. Local area unemployment statistics from the Bureau of Labor Statistics can be compared to real-time job posting data from EMSI to give a reasonable estimate of the growing numbers of unfilled jobs in greater metro Denver. The number of unfilled jobs in the region peaked at over 169,000 in July 2019.



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The labor shortage is acute across all industries and for all skills and education levels. According to Mark Zandi, chief economist at Moody's Analytics, "Businesses number one problem is finding qualified workers. At the current pace of job growth, if sustained, this problem is set to get much worse."

## Gaps in Training Pipeline

Chronic labor shortages have exposed skill gaps in the region. a skill gap can be defined as a mismatch between business relevance and training pipeline outcomes. The tables below show the top shortfalls and top surpluses. The reader should note that such data must necessarily be vetted through employers with the idea of effecting a closer match between training pipeline outcomes and business need, particularly in jobs requiring specific skills.

Top Training Pipeline Shortfalls in 2018, Denver-Aurora-Lakewood MSA					
SOC	Description	Annual Openings	Regional Completions (2018)	Difference	Typical Entry Level Education
13-1199	Business Operations Specialists, All Other	3,202	53	(3,149)	Bachelor's degree
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,952	0	(1,952)	Postsecondary nondegree award
13-2011	Accountants and Auditors	2,904	981	(1,923)	Bachelor's degree
13-1161	Market Research Analysts and Marketing Specialists	1,730	345	(1,385)	Bachelor's degree
15-1132	Software Developers, Applications	2,170	907	(1,263)	Bachelor's degree
41-3031	Securities, Commodities, and Financial Services Sales Agents	1,094	0	(1,094)	Bachelor's degree
25-2021	Elementary School Teachers, Except Special Education	1,218	447	(771)	Bachelor's degree
39-5012	Hairdressers, Hairstylists, and Cosmetologists	1,219	637	(582)	Postsecondary nondegree award
13-1028	Buyers and Purchasing Agents	550	21	(529)	Bachelor's degree
17-2051	Civil Engineers	666	148	(518)	Bachelor's degree

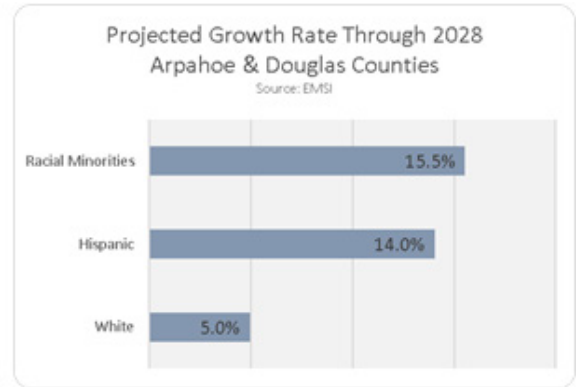
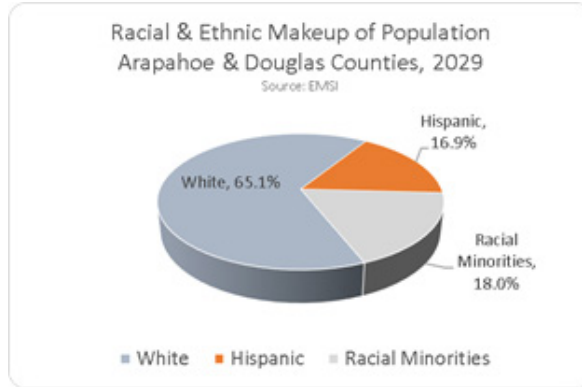
Source: BLS QCEW, Non-QCEW & Self-Employed Class of Worker; BLS Integrated Postsecondary Educational Data System (IPEDS)

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*College and University are expensive, yet we see from the tables that the most acute shortfalls and highest surpluses fall at the baccalaureate level. This bar chart shows that there is a disparity in the percentage of working age racial and ethnic minorities who have attained a bachelor's degree or higher. If we take steps to ensure higher educational attainment is more within reach for these populations, it will benefit the region's economy by increasing the numbers of skilled workers whose higher earnings will increase demand for local goods and services.*

## Growing Racial & Ethnic Minority Presence in Labor Force

In 2019, white non-Hispanic people made up 67.1% of the total population in Arapahoe and Douglas Counties. In 2029, this will have gone down two full percentage points to 65.1%.

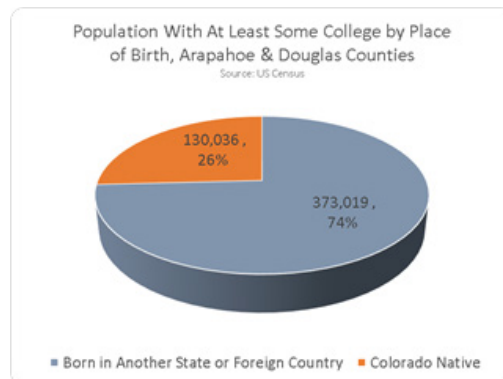
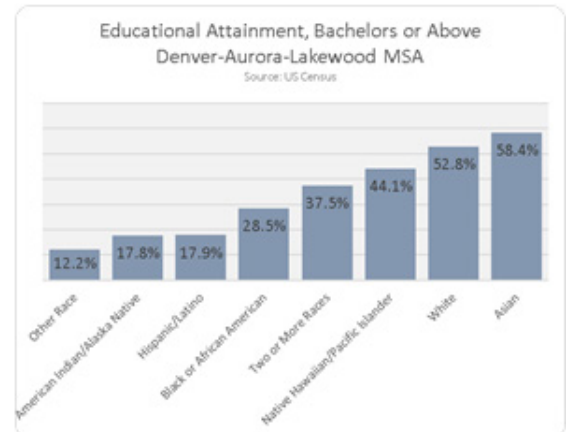
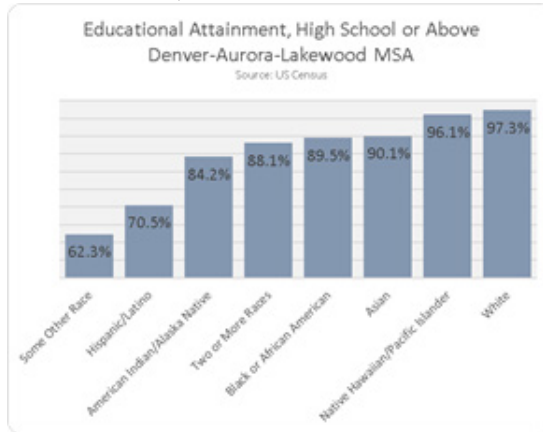


As to people working in Arapahoe and Douglas counties:

- White – 71.9%
- Hispanic/Latino – 15.9%
- Racial minorities – 12.3%

According to the Colorado Workforce Development Council, racial and ethnic minorities will make up nearly half of the state's labor force by 2050.

## Leveling the Playing Field

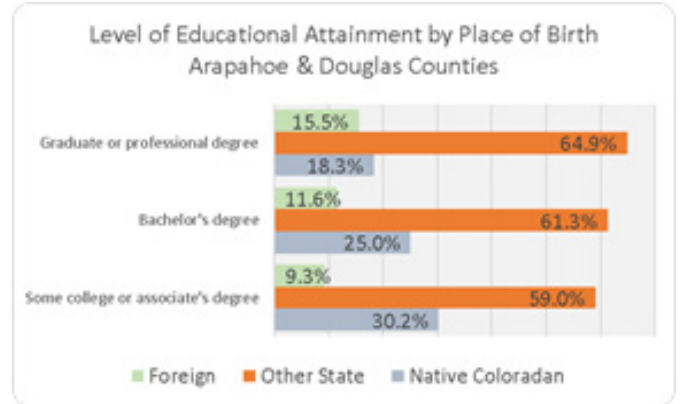


## In-Migration Going Down

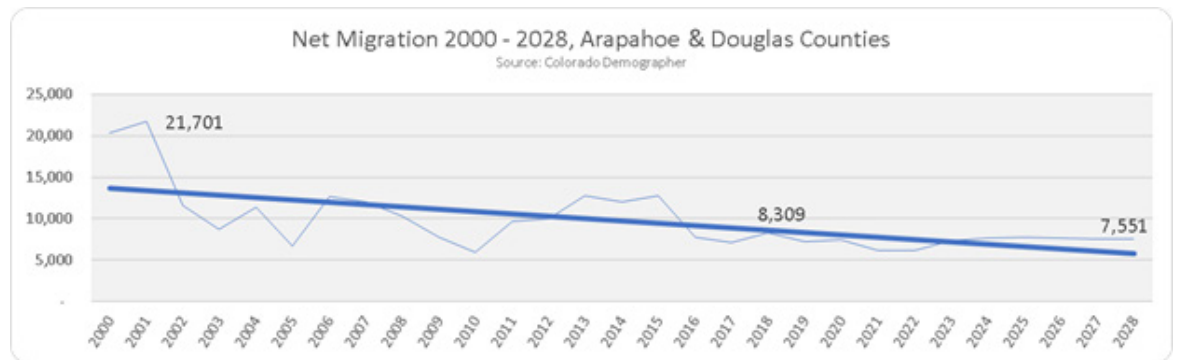
The pie chart shows the relationship between educational attainment and the place of birth for Arapahoe and Douglas county residents 25 years and older. The bar graph offers further detail.

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When this situation was first recognized, it was called the Colorado Paradox, but statisticians at the Colorado Demography Office have pointed out that with a migratory working population that tends to chase opportunity, this pattern is hardly unique to our state. Nonetheless, the disparity suggests strongly that we depend on in-migration to fill positions requiring higher educational attainment to a significant degree. If community leaders throughout the state do not act now to address this educational attainment disparity, there is a significant risk that businesses will begin leaving the state because the labor supply is inadequate.



While people are coming here to seek opportunity, others are leaving to seek opportunity elsewhere, and this is called net migration. Data obtained from the Colorado Demography Office is presented below.



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## OPPORTUNITIES

Opportunities are external to the Board. They are areas upon which further success can be built.

- New Arapahoe/Douglas Works! offices at the Arapahoe Community College Sturm Collaborative Campus in Castle Rock will allow more immediate access to workforce development services for Douglas County residents in Castle Rock and surrounding areas.
- In partnership with the Family Tree and Arapahoe County Human Services, Arapahoe/Douglas Works! will be collocating at the Oxford Vista campus, which will be the site of a transitional housing program, designed to house 10 to 15 families and provide economic support, mental and substance abuse counseling, early childhood care and other services. Arapahoe/Douglas Works! will have a small resource center onsite.
- Renovations to the Arapahoe/Douglas Works! Altura Plaza are complete, allowing Arapahoe/Douglas Works! to provide improved and more complete one-stop services to both job seekers and businesses in Aurora.
- With the acquisition of the Employment First Third Party Grant, Arapahoe/Douglas Works! continues to strengthen its relationship with the Arapahoe County Department of Human Services.
- The apprenticeship consultants will be leveraged by the Arapahoe/Douglas Works! Business Services team to better help regional businesses and sector partnerships to address training pipeline needs for critical skills.
- The Colorado Works Subsidized Training and Employment Program (CW STEP), which funds on-the-job training for persons receiving assistance through the Temporary Assistance for Needy Families (TANF) program allows the Arapahoe/Douglas Works! Business Services team to assist employers

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in addressing training needs for new hires, while at the same time raising wage outcomes to higher levels of self-sufficiency for participants.

- The Board is active in supporting a number of sector partnerships, including the Greater Metro Denver Healthcare Partnership (GMDHP), the Colorado Tech Partnership, the newly formed Metro Denver Aerospace & Aviation Sector Partnership, the Metro Manufacturing Partnership, and the Metro Denver Retail, Hospitality, Food & Beverage Partnership. These sector partnerships are led by businesses in the respective industries, and address current and projected critical staffing needs cooperatively. All sector partnerships are also supported regionally through CUWA.
- Available data sources allow in-depth examination and assessments leading to opportunities to better align training pipelines with current and anticipated business need.
- The WIDE group has worked with the Colorado Department of Labor and Employment (CDLE), CUWA and local workforce centers throughout the state in developing a data model that can assess wage outcomes for any exit cohort using actual earnings data. This data also shows wage outcomes for special populations, as a result, it may be used to identify areas where process changes can improve those outcomes. This methodology will help the Board tell its story much more compellingly to policy makers at all levels.

## Economy

- Because of the full-employment economy and resultant labor shortages, businesses in the region are even more dependent on the public workforce development system to assist in preparing underutilized sources of labor for success in employment. This gives workforce boards throughout the state, and their service providers, the opportunity to:
  - Systematize outreach for priority populations and create training opportunities as needed and appropriate. These populations include, but may not be limited to:
    - Public assistance recipients;
    - Low income persons;
    - Justice involved individuals;
    - Individuals with a disability;
    - Those without a high school diploma or equivalency;
    - Laid off workers;
    - Displaced homemakers;
    - Older individuals;
    - Homeless individuals;
    - Youth who are in or have aged out of the foster care system;
    - Individuals who are English learners, have low literacy levels, or face substantial cultural barriers;
    - Eligible Migrant Seasonal Farm Workers;
    - Individuals within 2 years of exhausting lifetime eligibility under TANF;
    - Single parents (including pregnant women);
    - And long-term unemployed individuals.
- Transportation could also become a barrier as this affects the economic competitiveness of both Arapahoe and Douglas counties. The Board must take the opportunity to develop strategies within the region to meet transportation infrastructure needs driven by economic growth.

The Colorado Works Subsidized Training and Employment Program (CW STEP), which funds on-the-job training for persons receiving welfare assistance through the Temporary Assistance for Needy Families program allows the Business Services team at Arapahoe/Douglas Works! to assist employers in addressing training needs for new hires while at the same time raising wage outcomes to higher levels of self-sufficiency for participants. The Board supports a number of sector partnerships, including:

- Aerospace & Aviation Sector Partnership
- Metro Denver Retail, Hospitality, Food & Beverage Partnership

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- Greater Metro Denver Healthcare Partnership
- Tech Talent Denver, formerly the Denver Metro Technology Partnership
- Metro Manufacturing Sector Partnership

Of special note:

The Arapahoe/Douglas Business Services team obtained a grant to assist the Tech Talent Denver Partnership in building a mobile application to provide a uniform way for programs, companies, and partnerships to find valuable resources that match their tech talent needs. In its own words, "Tech Talent Denver serves to attract, retain, and grow ambitious tech talent by pioneering a progressive culture of diversity and innovation where anyone can thrive."

Tech Talent Denver acts as a voice of the tech industry in the Denver metro area to support a thriving information and technology industry, collaborates with community and regional partners to support, educate, and train a viable technology sector workforce, and advocates for the development of a strong technology workforce through regional collaboration opportunities that bring the tech industry and supporting partners together.

In addition, the team recently acquired a grant that allowed a new Aerospace and Aviation sector partnership to be formed. This provides companies in aerospace and aviation a platform to develop funding strategies for managing training pipeline around current and future needs, particularly in light of the new Colorado Space Port which was approved in August 2018.

## Opportunities in Regional Economy

### *Self-Sustaining Partnerships*

Businesses throughout Colorado are now realizing the value of cooperation around strategies to mitigate the labor shortage. Sector partnerships led by businesses in specific industry sectors, such as healthcare, technology, manufacturing, construction, and retail are examples of sector partnerships active in greater metro Denver. 12

Public sector stakeholders such as the Board or the CUWA generally act in a convening role, and work with business leaders to set and address priorities around shortages in critical occupational areas.

Most recently, the Board and its service provider, Arapahoe/Douglas Works! worked with the Colorado Space Business Roundtable, the Colorado Spaceport, and a host of aerospace and aviation companies to launch a regional Aerospace and Aviation Sector Partnership. Business champions include Raytheon, Lockheed Martin, United Launch Alliance, Ball Aerospace and a host of smaller engineering, manufacturing and consulting firms working together to ensure the continued availability, not only of engineers, but also of manufacturing and engineering technicians.

### *Creative Strategies to Address Training Pipeline Shortfalls*

Businesses are working harder than ever on improving outreach, recruitment and retention strategies, and as part of that overall effort, are rethinking whether someone needs a certain level of educational attainment to do a certain job.

There has been much more emphasis on work-based learning strategies, and on the creation of registered apprenticeships. During the last several years:

- Lockheed Martin has created a micro-manufacturing apprenticeship that has proven highly successful. Initial conversations held during the recent formation of the regional Aerospace Sector Partnership formed by the Arapahoe/Douglas Works! Business Services team under a small grant from the Colorado Workforce Development Council suggest there is interest by aerospace companies in setting up a number of registered apprenticeships that would be recognized throughout the sector.
- Principal healthcare providers in the Greater Metro Denver Healthcare Partnership, including Centura,



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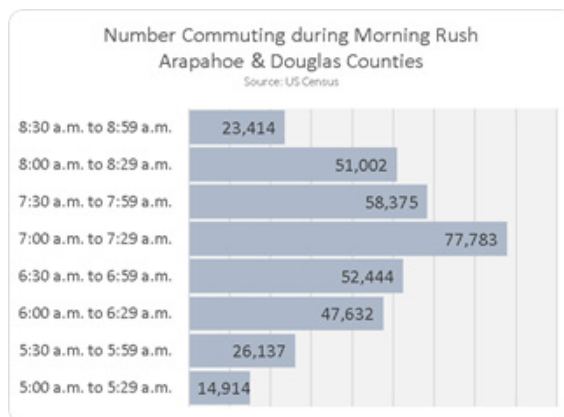
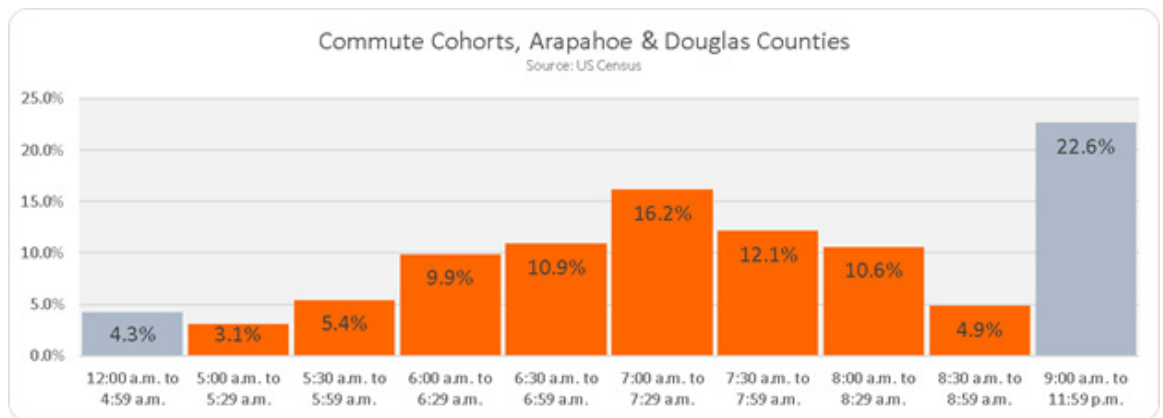
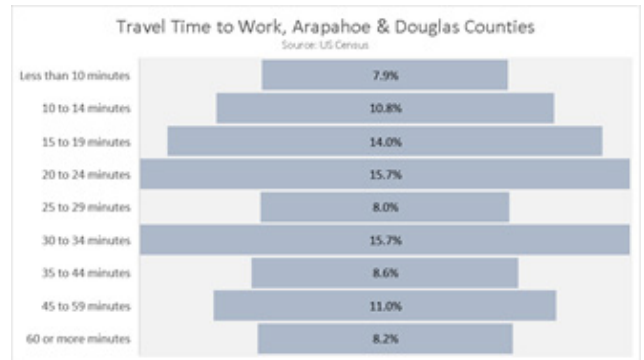
*Commute times and commuter frustration are on the rise.*

*This pyramid chart shows that 43.5% of Arapahoe and Douglas county residents spend thirty minutes or more in their daily commute.*

*One of the most important aspects of economic development and urban planning is to make accommodation in the transportation structure for peak usage during the daily commute cycle. This bar chart illustrates the concept well. One strategy businesses are increasingly using, where appropriate, is to stagger shift schedules to alleviate rush hour jams. Another strategy is allowing telecommuting.*

- HealthOne and Kaiser Permanente, have created an industry-recognized registered apprenticeship for medical assistants, and are currently reviewing other apprenticeable allied health occupations.
- The Colorado Tech association is supporting the Boulder-based software developer apprenticeship program run by Tectonics Group.
- Two apprenticeship consultants who will work with local workforce boards and their business service providers throughout Colorado to assist businesses who desire to create formal registered apprenticeships to supplement shortfalls in the traditional training pipeline.

*Creative Workarounds on Infrastructure*  
In Arapahoe and Douglas counties, we still see traditional commuter cohorts that clog our highways and major arterials during the rush hour, which in our region is said to 'start early and end late.'





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## THREATS

Threats are external to the Board:

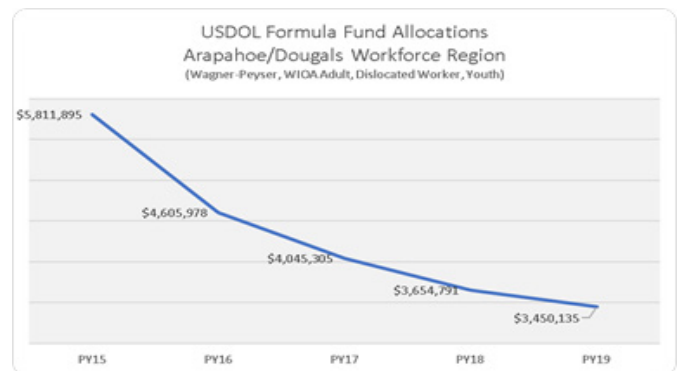
- The most significant threats to the Board are the budget cuts in formula funding from the U.S. Department of Labor Employment and Training Administration. On July 1, 2015, the Board and its service provider Arapahoe/Douglas Works! had \$8.2 million available for career services to job seekers. At the beginning of the current program year, on July 1, 2019, that figure had been cut to \$3.3 million, a 59.4% reduction, which represents a compounded annual reduction rate of 12.2%. Losing funding at this rate is unsustainable.
- Since the Arapahoe/Douglas area entered full employment in April 2014, workforce has risen to the top tier of concerns for local and regional businesses. If gaps appear in workforce development due to these budget cuts, risk of duplication of services by other stakeholders will increase, creating potentially costly and wasteful inefficiencies.
- According to the Society for Human Resource Management (SHRM), because of keen competition for qualified workers, the current cost to hire a new employee in this full-employment labor market has risen to \$4,129. Cuts to the publicly funded workforce development system, which is funded in part through the Federal Unemployment Tax Act (FUTA), may further increase these costs.
- Through its service provider, Arapahoe/Douglas Works!, the Board spends substantial amounts of grant funding on occupational training to prepare participants for success in the labor force. Due to cuts in the publicly funded workforce development system, training costs incurred by business and industry may increase

## Economy

- Colorado's budget structure is unsustainable. Due to ever higher portions of state general funds going to pay for local shortfalls in the public K-12 system, and the faster-than-average growth of the correctional population, there is progressively less state money available for the transportation infrastructure, and higher education.
- The worker shortage is projected to become critical by 2022.
- Net migration into Arapahoe and Douglas Counties is expected to take a significant downturn in 2021 and 2022 in anticipation of a recession, and then leveling off at 2020 levels.
- Denial rates for skilled worker (H1B) visas went from 10% in 2019 to 24% in 2019. This affects local high-tech employers such as Charter Communications, Infosys, and Arrow Electronics, because the top occupations brought over are software developers, systems analysts, and network architects.

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The most significant threat to the Board by far are the massive and sustained budget cuts in formula funding from the U.S. Department of Labor Employment and Training Administration. On July 1, 2015, the Board and its service provider Arapahoe/Douglas Works! had \$8.2 million available for career services to job seekers. At the beginning of the current program year, on July 1, 2019, that figure had been cut to \$4.9 million, a 59.4% reduction, which represents a compounded annual reduction rate of 12.2%. Losing funding at this rate is unsustainable.



According to the House Committee on the Budget, "Non-defense discretionary spending (NDD) funds core government programs that invest in and safeguard people and resources. It provides the vital services and protections Americans value, need, and deserve." This pot of money makes up around 16% of the federal budget, and includes our programming. Defense makes up another 15% of the budget and mandatory spending, which includes Social Security, Medicare, Medicaid, farm programs, and veterans' pensions,

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as well as interest on the national debt makes up the remaining 69%. The current national debt stands at \$22 trillion, with annual deficits currently in the neighborhood of \$1 trillion per year.

This strongly suggests that cuts will continue in the foreseeable future at the same magnitude, which will compel the Board, its staff and stakeholders in the region to find ways to fill gaps in workforce development delivery that includes braiding funds from multiple sources, forming creative and sustainable public-private partnerships and seeking grant funds from alternative sources.

If gaps appear in workforce development due to these cuts, risk of duplication of services will increase. Since the Arapahoe/Douglas area entered full employment (= or < 4.7%) in April 2014, workforce has risen to the top tier of concerns for local and regional businesses. Because of this, many other entities who may not know what already exists in the community are gearing up their own workforce development programs. Such duplications of service are wasteful, and may actually prove less effective than having the existing workforce development system create even stronger partnerships with stakeholders in economic prosperity, so that our system can continue to act as the hub for workforce development efforts and strategies moving forward.

According to the Society for Human Resource Management (SHRM), because of keen competition for qualified workers, the current cost to hire a new employee in this full-employment labor market has risen to \$4,129. Businesses using publicly funded recruitment and screening services through Arapahoe/Douglas Works! are saving substantial sums, and this makes sense because they have already paid for these services through the Federal Unemployment Tax Act (FUTA). If the ability of the Board and Arapahoe/Douglas Works! is diminished through lack of adequate formula and state Employment Support Funds (ESF), this cost will likely rise, perhaps substantially, for employers who use Arapahoe/Douglas Works! as part of their outreach and recruitment strategy.

In addition, the Board spends substantial amounts of money on training to prepare people for success in the labor force. For instance, during the last complete program year which began July 1, 2018 and ended June 30, 2019, the Board invested \$1.84 million in occupational training. Note that this figure includes work-based-learning, but does not include wrap-around supportive services often necessary to ensure a job seeker will be successful or the cost of case management, which is often instrumental in creating job retention.

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## Threats to Regional Economy

### Unsustainable State Budget

Because of the Taxpayer Bill of Rights (TABOR) Amendment, and the Gallagher Amendment governing residential property tax ratios, local funding for K-12 has steadily declined while the amount needed from the state general fund has steadily risen.

In addition, Colorado's correctional population has grown faster than the national average, requiring additional funding to increase bed space.

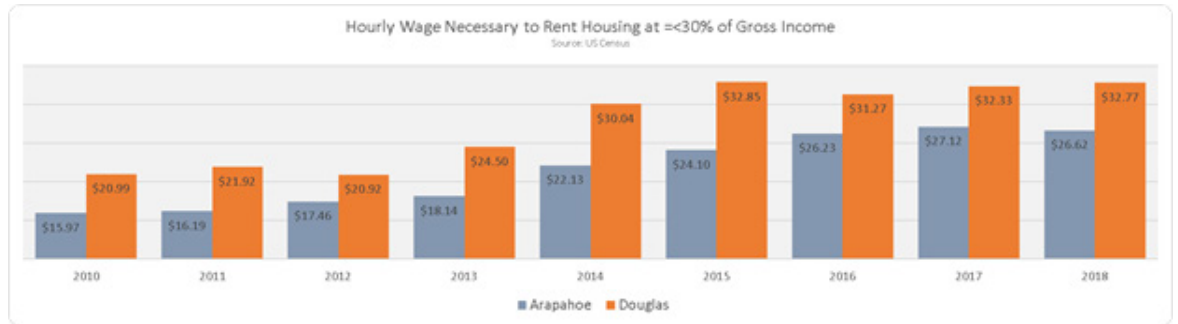
The expansion of Medicare has taken a larger chunk of the state's budget.

In the meantime, due to these pressures, and others, funding for the state's higher education system has shrunk, and state and local governments have not been able to adequately fund expansions and upgrades to the transportation grid.

## Affordable Housing

Substantial numbers of people who work in Arapahoe and Douglas counties cannot afford to live in them. This forces longer commutes, and in this tight labor market these longer commutes can be problematic for businesses as they lose valuable workers to companies doing business closer to where the labor force lives.

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For example, according to EMSI, over 2,000 people in production occupations have left Douglas County to work elsewhere. The most recent commute data from the U.S. Census shows that a manufacturing plant located in Castle Rock gets over 25% of its workers from Denver, Aurora and Thornton. At what point, in terms of average minutes of commute, will a manufacturing worker living in Thornton seek employment closer to home?

While most businesses agree on the need for affordable housing for their middle wage workers, those earning between \$18 and \$25 per hour, coming to consensus in any given community about how much should be built by whom and where is much more difficult.

As mentioned above, that many businesses are responding to retention threats by adopting flex scheduling to stagger commutes and even allowing a greater percentage of telecommuting to at least indirectly alleviate the affordable housing issue.

## Student Debt Reduces Demand for Local Goods and Services

On January 22, 2019, the Student Borrower Protection Center (SBPC) and New Era Colorado released an analysis of Colorado student debt using data obtained from the U.S. Department of Education and the Federal Reserve Bank of Philadelphia. This analysis revealed that presently there are 733,700 people in Colorado who owe student debt of \$26.4 billion. This is an average of \$33,256 per student debtor. Of these, 632,449 are currently paying, and 101,251 are in default.

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Essentially, as shown in this table, nearly one in four working age Coloradans (23.5%) are paying an average monthly remittance of \$315.65 to service their student loans. This adds up to an aggregate amount of nearly \$2.4 billion leaving the state each year, remitted to either the federal government or private lenders, and not being used to purchase local goods and services.

Opportunity Cost of Student Loan Repayment in Colorado				
Level	Average Interest	Estimated Number	Avg. Payment	Aggregate Annual Cash Outflow
Undergraduate	4.81%	385,548	\$304.68	\$1,409,626,195
Graduate	6.38%	230,764	\$331.55	\$918,117,894
PLUS	7.44%	16,137	\$350.43	\$67,857,237
<b>Totals</b>	<b>5.45%</b>	<b>632,449</b>	<b>\$315.65</b>	<b>\$2,395,601,326</b>

Sources: 2019 Analysis by Student Borrower Protection Center (SBPC) and New Era Colorado, US Census, US Bureau Labor Statistics, US Dept. of Education

## TRENDS

Trends are external to the Board:

- The workforce development system nationally continues to trend toward increased public-private partnerships that braid funding and leverage the expertise of a wider range of stakeholders.

## Economy

The eleven key sectors targeted by the Board make up about 46% of the total employment in the Colorado Central Planning Region (CCPR), and are projected to add over 116,000 jobs through 2024, an annual

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growth rate of 2.5%. The eleven sectors are aerospace & aviation, air transportation, architecture & engineering, biosciences, broadband, construction, finance & insurance, healthcare, hospitality, information technology and manufacturing.

- The full employment market is expected to continue, with the labor shortage becoming critical by 2022.
- Occupations requiring a high school diploma have increasing risk of automation.
- Employers along Colorado's Front Range will continue to depend on net migration, including foreign workers, to fill key positions.
- Employers in key sectors are increasingly exploring alternative methods of training and questioning traditional demands around educational attainment levels. These include apprenticeships and work-based learning.

The strongest trend in the national workforce development system is the continued movement toward effective public-private partnerships and sector partnerships to address critical skill needs and other issues having to do with strengthening the training pipeline.

This includes the strong focus on work-based learning opportunities and promotion of alternative pathways in education, particularly in the form of significant increases in the number and scope of registered apprenticeships.

This trend is reflected in Colorado's two overlapping apprenticeship grants calling for the number of registered apprenticeships in the state to rise by 1,600. As mentioned, the Board is at the leading edge of this effort, with the new apprenticeship navigators to be housed at Arapahoe/Douglas Works! and supervised by the CUWA Director.

Board Staff are working closely with municipal economic developers, the Small Business Development Center and Manufacturer's Edge through the Denver South Business Resource Partnership to create a regional asset map for businesses, and to bring more venture capital firms into the region.

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## *Continued Data Innovation*

Board staff are working with economic development partners on strategies to more effectively attract new talent to the region to ensure the continued availability of skilled labor in the face of projected economic growth.

The development of accurate earnings data to assess the effectiveness of workforce development programs will serve to educate local, regional and statewide policymakers about the continued value of workforce development as an integral part of the regional economy. Board staff are also involved with a national data group, which will allow these and other innovative data strategies developed by Board staff to be scaled throughout the nation.

Board staff involvement with the statewide WIDE group continues to strengthen the workforce development system through standardized reporting and increased scope of workforce intelligence and more powerful analysis.

## *Sector Partnerships*

These business-led partnerships, discussed previously in this paper, serve to create a cooperative environment that improves labor availability through innovative strategies in growing the training pipeline, and contributes to the ongoing competitiveness of Colorado businesses in the global economy. They also allow the Board and its staff to work with Arapahoe/Douglas Works! to ensure the continued value of the workforce development system to regional businesses.

## *Creative Strategies to Address Labor Shortages*

The Board is a regional leader in the creation of and participation in public-private partnerships that provide access to underutilized labor sources such as foster children aging out of the system, corrections, economically disadvantaged, and mature workers.

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Arapahoe/Douglas Works! provides classes to local businesses in skill-based hiring and other issues relevant to businesses, such as effective recruiting and retention strategies, and employment law. Other workshops provided to businesses discuss services of community agencies, work-based learning and apprenticeship programming, and the benefits of hiring underrepresented populations, including youth and individuals with disabilities.

Examples, from Program Year 2018 ending June 30, 2019, include:

- Parents to Work served 244 parents owing child support. Of these, it placed 147 at an average wage of \$16.10 per hour. Most of those placements were in the transportation & warehousing, construction, and retail industries.
- TANF/Colorado Works served 1,786 participants, and placed 350 at an average wage of \$14.49 per hour.
- The Colorado Works Subsidized Training & Employment Program (STEP) had 168 referrals, enrolled 101 people and placed 16 people at an average wage of \$14.57 per hour.
- Employment First served 1,580 participants and placed 430 people at an average wage of \$17.86 per hour.
- The Disability Employment Initiative placed 20 persons with disabilities at an average wage of \$22.00 per hour.
- Twelve people receiving disability income through Social Security entered the Ticket to Work program. Three found work at an average wage of \$13.11 per hour.

Arapahoe/Douglas Works!, through connections with Board members, is also working with the City of Aurora's project serving homeless families in Aurora at the former Excelsior Youth Center campus. It has also expanded its partnerships with Aurora Mental Health, as well as mandatory partners such as Adult Basic Education and the Division of Vocational Rehabilitation. It also worked with Code America to provide free income tax preparation for individuals qualifying for the Earned Income Tax Credit.

The new Arapahoe/Douglas Works! offices at the Arapahoe Community College Sturm Collaborative Campus in Castle Rock will expand services in Douglas County and put the Board at the forefront of new thinking around the training pipeline. The campus is a partnership that allows Arapahoe/Douglas Works!, Arapahoe Community College, Colorado State University and Douglas County School District to partner with regional businesses in a scalable method of growing the skills of the regional labor force to better fit business needs.

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## Trends in the Regional Economy

### *Uncertainty Around Minimum Wage*

In May 2019, the Colorado State Legislature repealed a 1999 law prohibiting local governments from raising minimum wage above the state level within their boundaries.

Subsequently, the Denver City Council unanimously increased the citywide minimum wage. Mayor Hancock signed the ordinance on November 25, 2019. The new law requires employers to increase hourly employees to at least \$12.85 on Jan. 1, with a second raise to \$14.77 following at the start of 2021, and a third to \$15.87 in 2022.

This action will affect workers throughout greater metro Denver in two ways:

- Now that municipalities can raise minimum wage within their borders, we can expect the state minimum wage, which can now be considered 'nominal,' to be forced by these actions up to an 'actual' minimum wage in areas adjoining cities that raise their minimums. Over time, this may well become a sort of domino effect throughout the region, and will immediately affect Arapahoe County employers located close to the boundary with Denver.
- Raising minimum wage creates a squeeze effect on employers who have a lot of people earning at or near the minimum wage. When minimum wage goes up, it forces wages up for workers who have spent some years on the job earning their way up to what is now the new minimum.

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## *Automation*

Automation has been used for decades by industry to leverage productivity so that fewer people could do the same job. Now, with innovations in Voice Over Internet Protocol (VOIP), the Internet of Things (IoT), robotics and artificial intelligence (AI), we are at the beginning of a whole new era in technology.

The growth of these advanced technologies in the greater metro Denver region is significantly faster and more concentrated than the national average, and in the Arapahoe/Douglas region along the I-25 corridor is particularly highly concentrated.

## *Selected examples:*

- Arrow Electronics, which has its corporate headquarters in Inverness, has invested heavily in the supply chain for IoT. This has resulted in Arrow developing technology used by over 200,000 manufacturers to create products used in homes, businesses and daily life. According to Arrow's website, it has a network of more than 349 locations serving over 80 countries.
- The Arapahoe/Douglas region continues to be a national hub in telecommunications and cable television broadcasting, with employment concentrations 8.3 times the national average.
- With the August 2018 approval of the Colorado Spaceport near Denver International Airport, the newly formed Denver Metro Aerospace & Aviation Sector Partnership will usher in a new era of expansion in advanced manufacturing and engineering.

## *Opportunities in Clean Energy*

Another trend in Colorado is the new emphasis on renewable energy. Governor Polis has signed seven climate and energy bills along with four electric vehicle (EV) bills, and unveiled a roadmap of the state's path to 100% renewable electricity by 2040. The newly signed legislation will decarbonize the state's economy 90% below 2005 levels by 2050, codify Xcel Energy's 100% carbon-free electricity by 2050 goal and expand energy efficiency and EV programs in the state.

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According to the Utility Dive, an industry publication, Polis' first executive order "calls for an allocation of \$70 million from the Volkswagen emissions settlement toward supporting transportation electrification and requires the Colorado Department of Transportation and the Colorado Department of Public Health and Environment to establish a Zero Emission Vehicle policy.

"Colorado has a goal to get 940,000 EVs on the road by 2040 and offers a \$5,000 tax credit toward EVs. The state has also entered a partnership with seven other western states to develop chargers across the region, making travel more accessible to EV drivers."

The Board staff has already worked with the Colorado Clean Energy Association to profile that industry group in the CCPR, and anticipates a substantial growth in job opportunity around renewable energy, growing the electric vehicle charging grid and moving toward a carbon-free state footprint. According to this data, the sector is expected to add over 8,600 jobs through 2024.

## *Wages, Benefits Rising*

Wages have been driven up by the shortage of labor. This is driving up the cost of goods and services, because unemployment is significantly below the boundary of 'full employment' and is considered inflationary.

As well as increasing wages, businesses are providing creative benefits packages and flex scheduling, and signing bonuses are becoming more prevalent at all levels. Examples culled from Indeed include:

- MedVed Automotive Dealerships are offering \$80,000 for experienced certified automotive technicians with a signing bonus up to \$5,000.
- Car Wash USA Express is offering \$12.50 to \$13.50 per hour for Customer Service Attendants with a \$200 signing bonus for full-time applicants.

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## CONCLUSION

The Board is in a very advantageous position to move forward successfully in the new decade.

To maximize successful workforce development outcomes, it is recommended the Board use this strategic planning cycle to:

- Continue to work effectively with the State Workforce Agency, the State Workforce Development Council and other stakeholders to assure that the public workforce system in Colorado is relevant and meaningful to both jobseekers and business/industry at the local and regional level.
- Work with stakeholders to identify gaps in the workforce development system and address those gaps through a variety of strategies including partnerships, referral networks, and new grants.
- Work closely with other One-Stop Service Providers in the CCPR to ensure that needed sector partnerships are being convened and existing ones continue to be business-led and relevant to competitive need in the region.
- Work closely with economic developers, chambers of commerce and other workforce stakeholders to address workforce development in the context of a multi-faceted multi-partner vision for regional growth that maintains and enhances the region's superior quality of life, helping to address:
  - Affordable postsecondary education and reduction of student debt.
  - Increasing educational attainment levels for racial and ethnic minorities.
  - Continuing need for superior data and analysis to inform policy makers.
  - Current and future training pipeline needs.
  - Affordable housing.
  - Early childhood nutrition, care and education.
  - Transportation infrastructure.
  - Clean air and water.
  - Cultural opportunities.







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