

ACTIONABLE AGENDA FOR THE FUTURE OF WORK & LEARNING

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Introduction

In the midst of industrial transformation, demographic changes, and a challenging history and present reality of racism and structural barriers, there is tremendous urgency and opportunity in centering equity in the future of work and learning. To prioritize policy solutions that would address critical equity barriers, the Bell Policy Center (with support from the Kresge Foundation) convened stakeholders across workforce and education systems to develop an actionable agenda for the future of work and learning.

This report represents the Bell Policy Center's understanding of the Advisory Council process, learnings, and policy recommendations. Throughout the months-long Advisory Council discussions, the Bell Policy center captured learnings from the group's collective analysis of barriers, promising practices, and policy recommendations. In addition to this, the Bell Policy Center administered exit surveys to solicit council member feedback on the process and recommendations themselves.

While the elements discussed below represent the council process and conversations of the collective group, they don't necessarily represent the endorsement of any individual organization. The Advisory Council landed on the following six recommendations as priority areas to address equity barriers in the future of work and learning in Colorado. A full list of all 28 recommendations developed by the Advisory Council is available in the appendix.

1. Improving navigation and coaching programs by:

- Increasing diversity in staffing and staff's cultural competency
- Expanding access to programs
- Implementing evidence-informed curricula

2. Expanding stackable credentials career pathway programs by:

- Creating a statewide body to develop and support stackable credential career pathways in multiple industries
- Ensuring alignment between credentials and industry needs
- Designing new pathways
- Reducing student-borne costs for prior learning assessments

3. Investing in work-based learning by:

- Expanding paid internships and apprenticeships
- Certifying and rating quality internships and apprenticeships and including them in the state's comprehensive user portal (My Colorado Journey)
- Convening stakeholders to bridge silos between workforce and postsecondary systems

4. Providing emergency grants by:

- Funding new emergency grant programs
- Ensuring students have knowledge of available resources through student outreach and navigation services

5. Creating skills-based and non-degree scholarships by:

- Defining quality credentials
- Ensuring students have knowledge of available resources through student outreach and navigation services
- Ensuring alignment between credentials and industry needs

6. Investing in concurrent enrollment by:

- Expanding funding for concurrent enrollment programs
- Expand supports for schools to prioritize addressing equity gaps

The Bell Policy Center now hopes to take the learnings from the Advisory Council and translate them into an actionable agenda to address equity barriers in the future of work and learning. This includes prioritizing policy changes around stackable credentials, concurrent enrollment, and work-based learning, reacting to both policy priorities from the council and the current environment engendered by COVID-19 and state budget cuts. The Bell Policy Center will continue to actively involve council members and students as it advocates for these policies.

Defining Equity

Equity was the central lens by which the council approached its analysis of barriers to the future of work and learning and potential solutions. In the context of the Advisory Council, equity was broadly defined. All council sessions were structured around **equity gaps**: gaps in outcomes measures, namely in access, persistence, and completion, across demographic groups that signal underlying inequities. Importantly, these outcomes reflect the failures of *systems*, and not anything inherent to any given group. This distinction is critical because equity gaps subsequently indicate the degree to which a system is failing its students or stakeholders. These measures are imperfect; however, they were one mechanism by which the council was able to identify key places to prioritize resources and policy change.

By understanding these gaps, the Advisory Council identified **equity barriers**, or challenges that disproportionately impact certain demographic groups and limit equitable outcomes. **Equity** was therefore a broad frame by which the council was able to examine an array of systemic structural issues. At any given moment, the Advisory Council discussed equity gaps in terms of gaps impacting Coloradans across different demographics: race/ethnicity, gender, geography, class, educational attainment, work experience, home language, immigration status, and ability.

Defining equity this way allowed the Advisory Council to flexibly consider different barriers across many systems in the myriad of positions represented by council members. Appendix C includes a further discussion on the different benefits and challenges to defining and leading an equity-centered process. The Advisory Council's structure, by way of composition and processes, was intentionally designed to center equity gaps.

Council members represented a broad array of stakeholders to provide diverse perspectives on equity gaps. The Advisory Council was comprised of adult learners, student parents, direct-service providers, and state and local government actors across the K-12, postsecondary, and workforce ecosystems (a full list of participating organizations is available in the appendix.) Together, this diverse group of stakeholders was tasked with identifying the specific barriers facing equitable outcomes of Coloradans and potential policy solutions. They met monthly over the course of 13 months to identify problems and solutions to equity in the future of work and learning.

Council recommendations were created in response to equity barriers. The first half of the Advisory Council's time together was dedicated to identifying equity barriers in the K-12, postsecondary, and workforce development systems. Many of the barriers identified centered on unmet basic needs, underfunded systems, and insufficient information for

students and system actors Key alike. The Advisory Council then identified promising practices to address these barriers within each ecosystem. A consensus process was used to prioritize policy recommendations. Finally, each policy recommendation was developed through council member and expert feedback. At every meeting, student voice was centered. Student participants not only provided key testimony and first-hand accounts of barriers they faced and promising practices they had seen help, but they were also actively involved in the facilitation of Advisory Council meetings to help provide their perspective throughout discussions.

Council processes centered collective learning on equity barriers. Related to the Advisory Council’s diverse makeup, there was a considerable amount of time spent on collective learning. The bulk of the Advisory Council’s process centered on identifying equity barriers. However, it is critical to name that an equity-focused approach can look significantly different from one setting to another. Given the Council’s slant towards the Denver metro area, equity-based learnings focused on low-income Coloradans and Coloradans of color. Critically, the Advisory Council first and foremost centered student experiences. However, this isn’t to say other groups of Coloradans — Coloradans with disabilities, rural Coloradans, etc. — don’t face significant gaps in opportunity and outcomes. As different organizations and groups apply and implement the recommendations from this process it will be critical to examine the unique equity gaps in each community and system.

Key Barriers

When we consider barriers across the future of work and learning (FOWL) ecosystem, there are impediments to success in both the completion of and transitions across each system. For example, in the K-12 system, there are the barriers related to successful high school completion, as well as the barriers related to a successful transition from high school to a postsecondary pathway. The duality of having siloed, yet interdependent, systems leads to a great degree of complexity. This overview of key equity barriers in the FOWL ecosystem is divided into analyses of the K-12, postsecondary, and workforce systems. When defining equity barriers, the Council focused on the (interrelated) outcomes gaps for Coloradans of color and low-income Coloradans. This focus came from the importance and urgency in addressing these gaps, an alignment with statewide strategic goals, and its centrality as a part of the Bell’s mission.

Table 1: Summary of Top Barriers

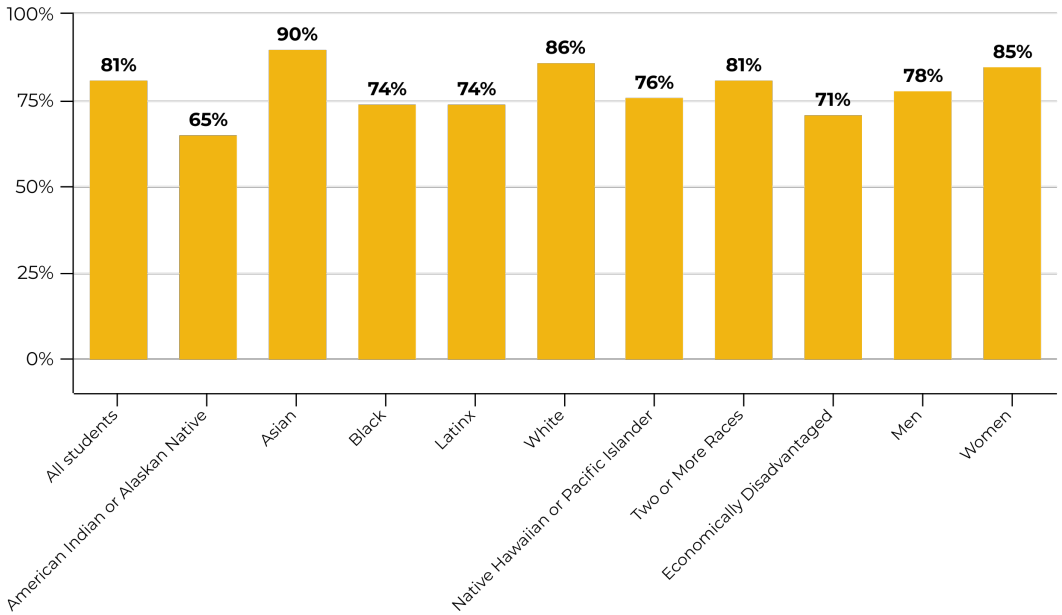
Top Barriers Identified by Future of Work Advisory Members	K-12	Postsecondary	Workforce
Unmet basic needs, such as transportation, housing, child care, food insecurity limit access, affordability, completion, and participation in a postsecondary program and the workforce.	✓	✓	✓
Programs or institutions don’t understand the unique needs of historically impacted populations who differ from the “average” or “traditional” student or employee.	✓	✓	✓
Students are often unable to access needed benefits and have difficulty navigating complex systems, including: awareness of available programs, supports, and processes; understanding program requirements and expected workforce outcomes; financial transparency and outcomes, “what to expect (financially); navigating application processes to determine eligibility; accessing referrals for resources to overcome barriers related to cost of living	✓	✓	
Employers and businesses are not engaged stakeholders in these systems. They have historically not invested or supported these systems, limiting the responsiveness of these systems to employer needs.	✓	✓	✓
High cost of postsecondary education tuition/fees and unpaid time spent in workforce training toward obtaining a credential.		✓	

Previous debt and limited access to or knowledge of more secure financing options.		✓	
Prior work and/or credentials not recognized, valued, or applied toward required coursework/experience, resulting in additional time and increased cost.		✓	
Disconnect between postsecondary program curriculum and required job competencies. Material on exams or licensure required for entry into a profession isn't always taught in postsecondary program.		✓	✓
Disconnect between workforce training and value of the training or credential in the workforce. Employers do not always value workforce development training and/or credential.		✓	✓

K-12
 The largest equity barrier identified by the Advisory Council to successful completion in the K-12 system, was **inequitable and insufficient funding in schools**. Compared to national spending, Colorado currently spends \$2,410 less per student¹ and ranks 32nd in the nation for teachers' salaries (without accounting for cost of living).² After the budget cuts that were necessary because of COVID-19, Colorado now underfunds education by over \$1 billion annually when compared to the state's constitutional requirements of Amendment 23. This funding deficit leaves students in school districts without adequate funding to access necessary resources. The limited state education funding further deepens equity gaps at the local level by exacerbating disparities between communities that can and cannot raise significant local revenue for education. These funding disparities can lead to or worsen other equity barriers, such as those presented in Table 2.

Equity gaps arise very early on in life and compound in systems, from early childhood education (ECE) to high school and beyond, that aren't actively redressing these gaps. Given the many places where equity gaps arise and are measured, the Advisory Council identified the transition from K-12 systems to postsecondary and youth workforce systems as a critical area of focus. Graduation rates, therefore, are a critical indicator of the culmination of different barriers and achievement of the K-12 education system. In Colorado, there are significant income and racial gaps in on-time graduation.

ON-TIME GRADUATION RATE (2019)



Source: Bell analysis of CDE Graduation data

Obtaining a high school diploma is valuable not only to the education system, but it is also critical for success in the future of work regardless of a student’s pathway to a postsecondary credential or access to their industry of choice. Entry-level jobs and jobs with career pathways increasingly require postsecondary education and/or high school credentials. Nationally, the largest growth in occupations from 2016 to 2026 is predicted to be in occupations requiring a high school credential for entry.³ A high school credential correlates with higher earnings and lower unemployment rates. In 2017, individuals with less than a high school diploma made, on average, \$188 per week less than individuals with a high school diploma, an estimated \$10,000 less annual income.⁴ Individuals with less than a high school credential are also twice as likely to be unemployed. Reducing barriers to successful high school completion is therefore a foundational element for equitable outcomes in the future of work and learning.

Table 2: Equity Barriers to Completion in the K-12 System

K-12 Equity Barriers	
Inequitable & Insufficient Funding	Funding for public schools and districts is insufficient to meet the needs of students and inequitable across the state
Cultural Competency	Educators are not representative of diverse student populations
Barriers for English Language Learners	Students and families with limited English proficiency are not supported in navigating the K-12 education system
Barriers for Parents & Guardians Impact Students	Program and policies may not sufficiently consider two-generation approaches. Barriers impacting parents and guardians impact students directly. In order to better support students, families must be supported altogether

Postsecondary Education

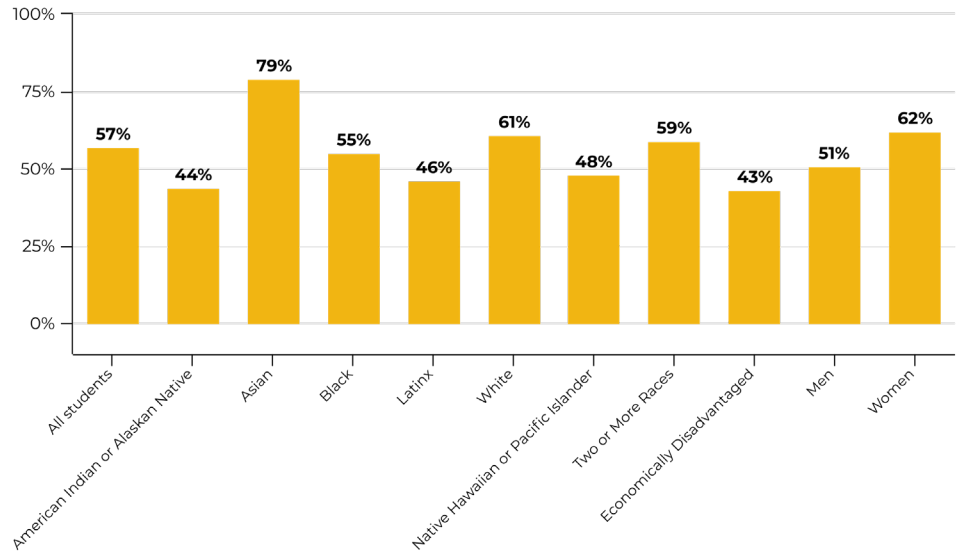
The Advisory Council identified the largest equity barriers contributing to achievement or equity gaps in postsecondary access or enrollment, persistence, and employment outcomes as the following:

1. The complex nature of the postsecondary system such as applying for financial supports is a major barrier to enrollment.
2. The cost of attendance beyond tuition and fees continues to decrease student persistence.
3. The misalignment between postsecondary training and workforce often limits employment outcomes upon graduation.

A postsecondary credential is a key predictor of a worker’s lifetime earnings and income. Just one year in postsecondary education can increase earnings by 6 percent to 9 percent.⁵ Earnings continue to increase with higher educational attainment; individuals with a bachelor’s degree earn an average of \$24,128 more annually than individuals with a high school diploma.⁶ A postsecondary credential is even more important now as 3 out of 4 jobs will require some type of education beyond high school. However, only 57 percent of Colorado’s workforce has attained a credential after high school.⁷

Equity gaps in the postsecondary education system are most noticeable in the differences in enrollment, persistence, and transitions to work across demographic groups. Of Colorado’s roughly 60,000 high school graduates in 2018, 56.6 percent enrolled in postsecondary education immediately following graduation.⁸ There are significant enrollment gaps across racial and ethnic lines, meaning targeted supports are necessary to dramatically improve matriculation rates, particular for Black, Latinx, and Indigenous Coloradans.

COLLEGE-GOING RATE (2019)



Source: Bell analysis of CDHE Matriculation data

One reason matriculation may be lower for certain students is the high cost of postsecondary education. The complexity of applying for and receiving financial aid further complicates these cost barriers. For example, nationally Colorado ranks 38th in free application for federal student aid (FAFSA) completion, with a 58 percent completion rate by high school seniors.⁹ In 2018, an estimated \$38 million in federal Pell grant aid was left unused by Colorado high school seniors.¹⁰ The cost of a postsecondary credential isn't limited to the cost of tuition: The costs of living such as transportation, child care, and food insecurity adds on to the burden of accessing and completing a postsecondary credential. These barriers increase the time and cost to complete a credential for many Coloradans.

Table 3: Equity Barriers to Postsecondary Access, Persistence, & Completion

Postsecondary Equity Barriers	
Limited understanding of student needs	Programs or institutions don't understand the unique needs of historically impacted populations that differ from the "average" or "traditional" student or employee.
Unmet basic needs	Lack of transportation, affordable or stable housing, child care, food insecurity influence access, persistence, and transition to the workforce.
Complex systems	Postsecondary systems are complex and difficult to navigate, including many steps to access financial supports, completing the FAFSA, and on-time completion of necessary steps for registration and enrollment.
Credentials failing to translate to better outcomes for women & communities of color	Credentials don't correlate to workforce outcomes or wages equally by gender or race and ethnicity; to obtain similar wages, women generally need to attain at least one credential higher than men for the same job.
High costs	Affordability is a barrier that is worsened by inflexible financial aid, lack of public investment, and insufficient communication around available resources.

Workforce Development

The Advisory Council identified the largest equity barriers contributing to equity gaps in workforce access and outcomes as the following:

1. Employer expectations and existing gaps in postsecondary attainment limit access to top jobs
2. Limited employer investment in training and workforce development limit opportunities for advancement

Workforce outcomes are essential to strengthening Colorado’s economy as more families are relying on dual incomes, individuals are retiring later, and work is directly tied to an individual’s quality of life.¹¹ Equity gaps in the workforce system are most easily identified by the difference between:

- An individual’s ability to access top jobs with livable wages
- An individual’s ability to access workforce development to meet the demands of the changing workforce

Differences in postsecondary attainment rates drive these gaps by determining an individual’s ability to access top jobs. The Colorado Department of Labor and Employment’s Office of Labor Market Information identified Colorado’s “top jobs” as those that meet three criteria: high projected annual openings, an above average growth rate, and a good wage. The top jobs are categorized into two earning tiers.

- Tier 1 jobs have median earnings at or above \$25.06 per hour, which is categorized as a living wage for a family with two adults (one working) and one child.
- Tier 2 jobs have median earnings of \$13.19 per hour, which is categorized as a living wage for an individual.¹²

The vast majority of Tier 1 jobs require at least a bachelor’s degree and the vast majority of Tier 2 jobs require a high school diploma. Individuals with a bachelor’s degree participate in the workforce 20 points higher than individuals with less than a high school credential.¹³

COVID-19 has worsened the existing barriers that keep communities of color from top jobs by exacerbating equity gaps in the K-12 and postsecondary systems. A top job in 2020 is not only correlated with higher wages, but also better health outcomes. For this reason, addressing equity barriers in workforce development is not only a social and economic imperative, but a matter of basic health and safety. An additional challenge is employee roles and responsibilities are evolving and technology is influencing how employees perform on the job.¹⁴ Postsecondary training that is closely related to the needs of a real job or occupation leads to better workforce outcomes and employees that are better equipped with the skills they need to adapt to such changes. But credentials alone cannot meet the demands of the future workforce and must be combined with additional skills which can be acquired through workforce development.

Table 4: Equity Barriers to Workforce Participation & Development

Workforce Development Equity Barriers	
Prior work and/or credentials not recognized	Prior work is not recognized, valued, or applied toward required coursework/experience, resulting in additional time to obtain work experience and skills leading to increased cost associated with workforce training.
Unmet basic needs	Lack of transportation, affordable or stable housing, child care, food insecurity influence access and retention in the workforce.
Poorly communicated job requirements	Employers require extensive skills and educational requirements unnecessary to perform job duties which limits access for women and communities of color.
Misalignment between workforce needs & credentials	Employers no longer rely on a postsecondary credential alone as proof of relevant skills for jobs. This misalignment makes it costlier and more time consuming for students to enter a career pathway of their choice because after completing a postsecondary credential many Coloradans must complete additional requirements or licenses to gain employment.

Recommendations

Policy Priorities

The Advisory Council's recommendations incorporate elements from different promising practices and represent an array of short- and long-term changes and range from light touch to more intensive (in terms of time and resources) options. The Bell will continue to center its advocacy and research efforts around these priority areas. However, all 28 of the policy recommendations initially developed by the Advisory Council show promise in terms of reducing equity barriers.

Further, these recommendations represent our best sense of what is both feasible and critical for an impactful implementation. A volatile funding environment, and everchanging realities mean that some of the tenets enumerated below are subject to change as circumstances in Colorado change. However, what is certain is that centering equity requires us to make improvements in the areas listed below. Already, as we discuss further below, different stakeholders, ranging from government stakeholders to direct service providers, are making changes to address some of the challenges we have laid out. In these instances, our policy recommendations serve as guideposts for what we believe, informed by our engagement with the Advisory Council, is critical for success.

In practice, the Bell will support and push legislation and/or other forms of policy change in these areas. In the short term, stackable credentials will be one key focus area for the Bell. We will continue advocating for continued funding for existing programs that help reduce equity barriers, such as concurrent enrolment. As the state and other stakeholders pilot and expand different programs for navigation and coaching, and work-based learning we will continue advocating for implementation that centers equity. This could include research and accountability reports tracking outcomes that pertain to equity. In brief, these six policy priorities will be central to the Bell's policy research and advocacy moving forward.

Navigation & Coaching

Navigation and coaching put a client or student's goals at the center of larger of counseling. It is not only a needed service in itself, it is necessary for the success of many other programs and interventions, including some of our recommendations below. These services are not only critical within a single institution, helping for example first-generation students navigate a new environment, but they are critical across institutions and sectors.

These services can take many forms, ranging from better counseling services in high schools, more robust and student-centered career pathway exploration, to services that connect students to resources and programs. Rather than focusing on one program or modality of navigation and coaching, the advisory council considered key tenets for success and equity that should be broadly applied across all navigation and coaching services. This approach acknowledges that a wide menu of options is necessary as the needs of regions, sectors, and populations will vary.

Recommendation: To ensure the highest quality navigation and coaching services, Colorado must continue to strengthen or build mechanisms within state agencies and/or education systems to establish and oversee accountability measurement and reporting, monitoring of best practice implementation, and (when economically feasible) administering grants for navigation and coaching programs in the K-12 through postsecondary system and workforce development, with emphases in the following areas:

- Implementing inclusive and flexible hiring practices and targeted recruitment processes to create a talent pipeline of service providers and program leaders that reflect the students and community served by the program
- Increasing staff diversity to reflect the students and community served
- Increasing cultural competency of staff

- Prioritizing services' availability within communities historically and currently marginalized, especially communities of color and low-income communities
- Adopting and implementing curriculum that is trauma, brain science, and evidence-informed, and culturally relevant
- Incorporating student/customer feedback and voice into organizational operations and development

Stackable Credentials

Stackable credential a stackable credentials pathway is the sequencing of postsecondary credentials that can be accumulated over time and help individuals develop qualifications to move along a career ladder or to higher paying jobs. These programs are one key component of the broader effort and strategy to make credentials more accessible and to diversify the type of credentials that are valuable in workplace settings. Stackable credential programs aim to reduce inefficiencies in our postsecondary and workforce systems. In Colorado, part of this effort is to value workplace learning and experiences more formally through postsecondary credits.

Recommendation: In order to further the development of accessible and affordable career pathway programs, CDHE or relevant agency, should establish a Stackable Credential Program (SCP) Commission/Board to bring existing agencies, industry representatives, and impacted students together to develop a student-centered approach to a credentialing system that recognizes, promotes, creates and reports on credential completion along career pathways yielding high returns on investment for students historically and currently marginalized in the system. The SCP Commission/Board's diversity will reflect the state's population and their work will be reported on a yearly basis. The areas of focus for the entity should include:

- Developing and promoting strategies to measure credential completion along career pathways and reporting on student utilization of pathways
- Based on data on return on investment for students, convening industries and SCPs to promote changes within at least five industry areas to fully utilize existing resources or programs with an equity lens
- Working with industries and institutions to reform existing pathway programs or create new programs that match the needed skills of in-demand industries
- Ensure students do not bear the cost of prior learning assessments and adopt a flexible policy for how credit is provided and recognized for prior skills and trainings across Colorado institutions
- Providing advisors with information about stackable credentials to engage students and their families about their utility moving along career pathways

Work-Based Learning

Work-based learning (WBL) is the ability of students to receive skills and training that lead to credit while they are receiving payment for their work. It is a critical component to reducing equity barriers. There are many changes that are needed in work-based learning that range from the relatively straightforward, such as cataloguing internship and apprenticeship opportunities, to the complex and amorphous, such as building towards a system that values less traditional modes of learning. Our recommendation captures this diversity, as they are all important. Part of the challenge is the comparatively decentralized nature of the workforce ecosystem. This means that there are many different entry points for change. While convening stakeholders may be more challenging in this space than others, by the same token the opportunity for innovative and diverse options for different learners abounds. At its core, rather than prescribing one option or solution, since they are all important, this recommendation aims to ensure that the ecosystem of work-based learning centers equity and opportunity.

Recommendation: In order to ensure Colorado's work-based learning ecosystem reflects equity values and goals to address barriers to entry for students historically and currently marginalized in WBL opportunities and subsequent employment, broad and diverse changes are necessary, including:

- Building partnerships between Colorado state agencies and industry representatives to promote registered and paid apprenticeships and internships with a wide range of employers across the state
- Connecting WBL providers with state or federal subsidies to offset costs of paid opportunities through Colorado state agencies and industry representatives
- Prioritizing subsidies for employers who would not be able to provide paid internships without them
- Certifying and rating paid internships for students across learning systems based on student outcomes (defined with an equity lens), learning opportunities, work environment, and wages
- Certifying and rating paid internships is consistent across learning systems, student-centered, and based in the appropriate governing body (CDE for high school students, CDHE for postsecondary students, and CDLE for adult learners)
- Including registered and paid apprenticeships as well as paid internships on My Colorado Journey
- State agencies working with employers towards valuing “non-traditional” work experiences like paid internships to build greater flexibility into hiring requirements to holistically address systemic racism and classism
- Implementing broader adoption of the Colorado Workforce Development council’s WBL continuum across the state
- Convening cross-sector stakeholders from K12, nonprofit, postsecondary, and workforce development sector to develop relationships and share best outreach practices for equitable student outcomes

Emergency Grants

Emergency grants provide small amounts of funds to students during emergencies that might inhibit their ability to attend class, such as a flat tire or lost childcare. One of the most significant equity barriers comes from the many auxiliary expenses that can unexpectedly arise from furthering your education or retraining and upskilling. A car issue, for instance, can quickly interrupt your education. Just like transportation, a place to live, and health are all necessary to success in furthering ones education, emergency grants are a necessary component to ensure unexpected events don’t permanently derail an individual’s path towards a postsecondary credential.

Recommendation: To ensure financial aid benefits low-income students and there are additional funds to support student retention, the Colorado Department of Higher Education (CDHE) should work with the governing boards of community colleges and four-year institutions to issue guidance on implementing an emergency assistance grants program to help students cover unplanned costs caused by unexpected events including, but not limited to, vehicle repair costs, rent, food, medical emergencies, travel costs due to family emergencies, or other necessary costs as guided by the Department. Guidance may focus on the use of financial aid for an emergency grant program or the creation of a matching grant program to disburse funds directly to students as emergency grants. Guidance from CDHE may include:

- Using financial aid dollars to create an emergency grant program
- Building a public-private partnership to create a matching grant program for emergency grants
- Sharing best outreach practices to ensure students are aware of the program, including providing education on associated tax issues for students receiving grants
- Developing student eligibility criteria to ensure Colorado students attending Colorado public institutions of higher education with family income that is 250 percent or less of Pell eligibility have the access they need to continue their education
- Tracking on availability and accessing of funds statewide; tracking how funds are used, demographics of participating students, and their education outcomes for future policy and decision making

Skills-Based & Non-Degree Scholarships

Colorado currently has scholarship programs for student to pursue two-year and four-year degrees, but not for credential or other non-degree programs. As both people and industry adapt to a more versatile and fast-changing environment, the types of credentials needed to prepare individuals for workforce demands will vary.

In particular, we expect that short-term skills-based credentials will become more common and more popular. As such, it is necessary to ensure that access to these credentials is equitable. Expanding the eligibility of scholarships beyond the archetypical two- and four-year institution will be a critical way to address equity barriers of cost and access for low-income Coloradans.

Recommendation: To further the development of accessible and effective credentials for students historically and currently marginalized, especially communities of color and low-income communities, Colorado should use new and existing state funding (possibly through WIOA, DHE, CDLE, or other available funds) to seed a public-private partnership to develop a scholarship program to provide financial resources to students seeking credentials from postsecondary institutions, non-postsecondary areas, and skills-based training. Key components of this effort include:

- Defining a quality credential and/or program to ensure that those programs lead to good, career pathway jobs or advancement
- Developing criteria to ensure prioritized credentials prove a positive return on investment for students akin but not limited to existing measures for two- and four-year institutions
- Ensuring outreach and navigation services are committed to equitable access for students historically and currently marginalized, especially communities of color and those with low incomes; ensuring services utilize student demographics, credentials, and job outcomes data to inform their advising to avoid perpetuating the practice of students of color being advised into shorter term and lower quality credentials
- Supporting regional efforts to prioritize credentials that stack from entry into mid-level in in-demand industries resistant to automation as reported in the Talent Pipeline Report and cross-referenced with the automation index. Current examples include occupations in computer and mathematics, health care practice, architecture and engineering, health care support, and financial services.

Concurrent Enrollment

Concurrent enrollment allows high school students to obtain college credit while in high school and reduces the costs of attaining a postsecondary credential. Moreover, concurrent enrollment is also associated with a number of positive outcomes in the K-12 system, including increased likelihood of students graduating from high school.¹⁵ The Advisory Council's recommendation is in part responding to the COVID-19 related cuts as this is an existing program in which the state has prioritized investment and expansion. Furthermore, the Department of Higher Education (CDHE), in partnership with the Department of Education (CDE), continues to research and examine ways to improve this program and its ability to address equity barriers. The council wished to consider the expertise of CDHE while setting a stake in the ground around continued prioritization of this program. Therefore, given CDHE's expertise in the administration of this program the advisory council delayed making more prescriptive recommendations around Concurrent Enrollment.

Recommendation: Concurrent enrollment remains an important tool to address educational equity gaps and to help improve access to postsecondary education for all Colorado students. Colorado should:

- Seek to fund concurrent enrollment expansion efforts that were put on hold during the FY 2020-2021 budget process
- Expand programs and support for schools that show the greatest progress in addressing equity gaps

The Bell Policy Center strongly believes prioritizing policies in these six areas will help ensure the future of work and learning, whatever it may look like, will have fewer equity barriers. These recommendations not only offer discrete program options, they set a framework for the types of solutions that will be necessary. Perhaps most importantly, these recommendations illustrate the type of cross-sector collaboration and innovation that will be necessary to quickly adapt to the future of work and learning.

Next Steps

This report documents an actionable agenda for stakeholders at all levels in Colorado to continue addressing equity barriers in the future of work and learning. Here are ways the Bell plans to implement this agenda through its own work over the next several years.

Legislative Advocacy

In the short term, the Bell Policy Center will advocate for legislation to create stackable credential pathways, and for increased funding for concurrent enrollment. When the budget allows, the Bell will advocate for the creation of new programs suggested by the Advisory Council, such as emergency grants and paid internships and apprenticeships.

Partnering to Advance Change

One of the key lessons learned from the Advisory Council was, too often, we operate in silos while trying to improve outcomes for our communities. The Bell is committed to continuing to build and strengthen partnerships to help advance proposals related to the Advisory Council's work. This can include supporting partners in their development, implementation, or analysis of any proposals. The Bell will also continue to convene partners for advocacy opportunities as they arise and will continue to center student voice in these efforts.

Supporting a Responsive & Equitable Work & Learning ecosystem

Through the work of the Advisory Council, the Bell has identified a few guideposts that will be critical for Colorado to build and center equity in the future of work and learning. To this end, the Bell will continue to monitor the ways that various systems and making changes that advance equity. This can include holding key stakeholders accountable through continued engagement and research. The Bell will ensure new programs are designed with necessary accountability mechanisms in mind, to be able to identify and rectify equity gaps. The Bell will also conduct original research as needed, in service of understanding key issue areas in the work and learning ecosystems.

By engaging in these advocacy, partnership, and research and monitoring opportunities the Bell is working to ensure the learnings from the Advisory Council are implemented.

Appendix A: Full List of Policy Options for Removing Equity Barriers in the Future of Work and Learning

Table 5: Policy Options for Equity Barriers to K-12 Education

Policy Recommendation	Promising Practice	Key Barriers Addressed
Transit Access	Free or reduced transit passes for students	Transportation
Adequate Mental Health Resources	Trauma-responsive curriculum and training for teachers (incl. adverse childhood experiences) and sufficient school staff for mental health and wraparound supports; free mental health counseling for students; target/prioritize mental health care access for student parents	Mental Health
Cultural Responsiveness	Cultural responsiveness and diversity reflected and valued across institutions (including curriculum and resources in schools, associations, employers)	Historic and current marginalization
Adequate Counseling	High school counselors connect students with leadership, skill building, and career readiness resources in community	Difficulty navigating systems
Career Pathway Exploration	Career and pathway exploration (starting in middle school), job site visits, tours, internships and apprenticeships, work-based	Disconnect between education and job expectations
Concurrent Enrollment & Credit for Prior Skills	Students are enrolled in two schools simultaneously. Many dual enrollment programs involve high school students simultaneously taking college classes, most often at a local community college. Concurrent enrollment, PTech, prior learning assessments (payment provided) and other transferable programs to obtain credit	Access, time, and financial burden of postsecondary education
Expand Credit Attainment	Expanding activities that earn credit to include community leadership and association work; hours worked within a promising industry for those over 16; apprenticeships and internships	High cost of training/higher education; unpaid time to get credential
Information Responsive to Strengths	Share easy-to-understand information about Advanced Placement & concurrent enrollment that is responsive to students' strengths	High cost of training/higher education; unpaid time to get credential

Table 6: Policy Options for Equity Barriers to Postsecondary Education

Policy Recommendation	Promising Practice	Key Barrier Addressed
Quality Work-Study Opportunities	Improve quality of work-study jobs so they're as valuable as an internship in terms of developing work skills/connections	Disconnect between education and job skills required
Housing Supports	Improve housing funding to ensure students can access affordable housing; prioritizing housing vouchers for students	Housing
Food Support	Access to affordable food assistance, including food pantries at institutions	Food Insecurity
Program Flexibility	Open educational resources (OER) and more program flexibility and course availability to provide greater options for students juggling multiple responsibilities, including children and work	Family obligations and responsibilities
Career Pathways	Career and pathway exploration (starting in middle school), job site visits, tours, internships and apprenticeships, work-based	Disconnect between education and job expectations
Funding Assistance and Flexible Student Aid	Fewer restrictions on emergency funds; changing distribution of financial aid to aid budgeting; connecting students with variety of services (TANF, WIC, SNAP, CCAP, housing vouchers, etc.)	High cost of training/higher education; unpaid time to get credential
Scholarships with Mentorships	Scholarship programs with mentorship component; support for students in building social capital and professional networks	Unequal distribution of opportunities; lack of professional network
Return on Investment	Advisors and institutions give information regarding economic return of degrees; institutions don't offer programs that lack demand in workforce	High cost of training/higher education; unpaid time to get credential
Simple Enrollment & Assessment	Simplify, streamline, integrate enrollment and assessment processes. Integrate the point of entry for higher ed. system into more community-based spaces (e.g., workforce centers); make transferring credits easier	High cost of training/higher education; unpaid time to get credential
Pricing that Matches Outcomes	Higher education and trainings priced according to expected career income; or outcome-focused financing of higher education	High cost of training/higher education; unpaid time to get credential
Navigation	Wraparound services (navigators, counselors, role models, mentors) to connect, educate, communicate, navigate, and refer	Unequal distribution of opportunities; lack of professional network; biases in communication of opportunities
Industry-Focused Academic Programs	Accelerators; degree programs are industry-facing, teaching career skills instead of academic skills	Disconnect between education and job skills required

Table 7: Policy Options for Equity Barriers to Workforce Development

Policy Recommendation	Promising Practice	Key Barrier Addressed
Stackable Credentials	Work-based learning aligned to program, stackable credits	Prior work and/or credentials not valued
Navigation-Minded Case Management	Goal4It!/navigational services for workforce programs and education systems	Unequal distribution of opportunities; lack of professional network; biases in communication of opportunities
Child Care	Employer policies value family responsibilities including childcare benefits; on-site child care at institutions	Family obligations and responsibilities
Student Loan Support	Employers pay enough for employees to cover loans or programs that support the payment of student loans	High cost of training/higher education; unpaid time to get credential
Employee Ownership	Need more unions and to encourage employee ownership models (beyond stock options, real democratic control)	Lack of employer/business investment
Customer Feedback	Customer feedback to improve services (e.g., road testing)	Disconnect between education and job skills required
Tax Incentives for Training	Economic development incentives (tax break) for employers that pay for training for employees	Lack of employer/business investment
Paid Opportunities	Paid for time apprenticeships (including program for adults), internships, stipends, during trainings	Unequal distribution of opportunities; lack of professional network

Appendix B: Glossary of Selected Terms

Adverse childhood experiences: Adverse childhood experiences are traumatic events experienced by children, often considering events experienced by children under the age of 17. These experiences, such as experiencing violence, neglect, or abuse, can lead to significant health risks later in life.¹⁶

Behavioral-science informed: Applying behavioral science principles to change program materials, forms, or processes to improve participant outcomes and program performance.¹⁷

Cultural competence: A commitment to learning about cultural differences, developing cross-cultural skills, and learning from our mistakes along the way. Comprised of the four components: awareness, attitude, knowledge, and skills.¹⁸

Culturally relevant: Defined as a teaching strategy (culturally relevant teaching, CRT) “that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes,” and, further, as “us[ing] the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning more relevant and effective.”¹⁹

Diversity: Diversity includes all the ways in which people differ, and it encompasses all the different characteristics that make one individual or group different from another. While diversity is often used in reference to race, ethnicity, and gender, we embrace a broader definition that includes age, national origin, religion, disability, sexual orientation, socioeconomic status, education, marital status, language, and physical appearance.²⁰

Evidence informed: Uses the best available research and practice knowledge to guide program design and implementation. This informed practice allows for innovation while incorporating the lessons learned from the existing research literature.²¹

Quality non-degree credential: A quality non-degree credential, “provides individuals with the means to equitably achieve their informed employment and educational goals.”²²

Trauma informed: A way of providing services by which the provider recognizes the prevalence of early adversity in the lives of clients, views presenting problems as symptoms of maladaptive coping, and understands how early trauma shapes a client's fundamental beliefs about the world and affects their psychosocial functioning across the life span. Trauma-informed approaches incorporate core principles of safety, trust, collaboration, choice, and empowerment and deliver services in a manner that avoids inadvertently repeating unhealthy interpersonal dynamics in the helping relationship.²³ In education, this includes examining the influence and impact on students in our schools of factors such as racism (explicit, implicit, and systematic; and microaggressions) as well as poverty, peer victimization, community violence, and bullying.²⁴

Appendix C: Process Learnings

Our Approach, Make Up, & Objectives

Each month, Advisory Council members would do a deep dive into each system to identify barriers, promising practices, and policy recommendations. These monthly meetings would include the voices of outside experts, stakeholders, and students to provide many different perspectives on each topic to guide discussions. The first five months of council meetings were dedicated to identifying equity barriers in each system (K-12, postsecondary, and workforce development) as well as in the transitions that connect individuals from one system to another.

Because the Advisory Council was made up of representatives and individuals from many different sectors, a considerable amount of time was spent developing a shared understanding of equity barriers. However, the populations prioritized was intentionally kept broad. The hope of this was to enable greater generalizability of learnings from advisory council meetings. However, despite this effort, findings are admittedly focused on low-income Coloradans and Coloradans of color in the greater Denver metro area. This reflects the makeup of the Advisory Council. While efforts were made to include rural Coloradan organizations, this is one area where room for improvement remains.

Similarly, “the future of work and learning” is a very broad term. Our Advisory Council did slightly overemphasize postsecondary education in the policy recommendation stage. This is reflective of the council makeup, as well the benefits presented by a vibrant postsecondary system on our K-12 system and our workforce development system. However, discussions of barriers and promising practices all had equal time spent on each system. The future of work also includes critical questions around worker classification, benefits, and related issues. While an initial council meeting raised these issues, the Advisory Council homed in on the systems we’ve discussed as key focus areas.

Lastly, to generate six policy priorities the Advisory Council started with 28 different recommendations across the three different ecosystems to prioritize solutions to equity barriers for low-income Coloradans and Coloradans of color. This process was driven by responding to the equity barriers identified and which set of policies held the most promise to make impactful changes on them, rather than being driven by a response to each system. The policy prioritization process proceeded as follows:

- 1. A broad list of promising practices was generated.**

These were generated over the course of several meetings that included brainstorming processes centered around addressing equity barriers in each system. This diverse list of promising practices was then whittled down to our top 28 recommendations through a prioritization and consolidation process.

- 2. A consensus process led to the prioritization of six practices, policies, and programs based on the equity barriers identified during the first stage of the Advisory Council.**

The final set of policy priorities were engendered through a consensus process as themes emerged. For the consensus process the Advisory Council was split up into subgroups to facilitate full participation. For a full list of all the options considered by the advisory council, please see our appendix. From this list, the council selected six priority recommendations.

3. The Advisory Council drafted policy recommendations allowing for feedback in multiple forms and at several stages.

The council spent the final four months drafting these recommendations to identify key components through issue area deep dives. Additionally, the Bell conducted one-on-one interviews with experts to more fully develop these policy recommendations based on the council-drafted recommendations. Lastly, the Bell sent a survey to the whole Advisory Council to allow individuals one final opportunity to provide feedback on elements that were missing, key for successful implementation, and to ensure that the final recommendations were reflective of the Advisory Council's intent.

Process Challenges & Lessons Learned

In addition to deep learning about the equity barriers that exist in Colorado and their potential solutions, we learned a lot about what it takes to run a community-based research process. This section briefly reflects on some of the major challenges and lessons from the Advisory Council process. This isn't exhaustive, but rather illustrative of the value of and resources required in order to do this level of engagement. Not only do we hope that these lessons learned will be helpful for others, but these reflections will also guide future engagement from the Bell.

Facilitation is a full-time job. The Bell was able to hire a fellow whose sole role was to facilitate the council meetings. This position was critical for the Bell to be able to sustain a relatively deep level of engagement for over a year of meetings. Deep engagement in a collective problem-solving process takes a lot of time and resources, and it was entirely thanks to the support from the Kresge foundation that we were able to execute this work. This is in large part because of the challenges in balancing myriad organizational interests. While this is very feasible with a common goal it does require dedicated facilitation and constant negotiation of these interests. It is very unlikely that this work would have been achieved without one person that kept this work moving forward.

Centering student experience was essential and is challenging. This is because policy change must be rooted in the voices of those that are impacted by these systems. However, students are often less engaged than other stakeholders in policy conversations. Yet, the value of student voice was nearly universally acknowledged by Advisory Council members, who named the value of student voice in our conversations, and when asked who most changed their perspective, students were the most commonly cited resource. Because students may not normally be involved in policy conversations, centering student voice take significant time and resources. Students, unlike professionals, face many external pressures because working in these systems isn't their job, it is their life. As such, preparing students for meetings, in particular as they are presenting their expertise and co-facilitating, is time and resource intensive, yet necessary.

Balancing breadth and depth. A third challenge, already mentioned, was the tension between breadth and depth. Because this council covered many different systems and barriers, this was a constant challenge. While we feel that this broader tact was the right approach for this council, future work may look very different. For example, to center the experiences of Black students would have inevitably led to a different set of policy recommendations (though there would have been some overlap) to more specifically address the array of socioeconomic barriers and opportunities faced by Black students. By contrast, this broader approach allowed us to have conversations, at different times, about students with disabilities, rural students, Latinx and Black student, and low-income students. This allowed us to have a lot of different people at the table. However, by the same token, often some of those at the table communicated that the needs of their communities weren't being centered. There are tradeoffs to digging deep, or going broad, depending on the goals of each organization. As one of the first convenings of this type in Colorado in the future of work and learning, the breadth approach was tremendously insightful to set a landscape of policy priorities writ large to reduce barriers for many different types of students. However, in the midst of our current cultural moment, we understand that not all of this may feel as specific to particular communities as is desirable. This is a legitimate shortcoming of this work. However, insofar as this Advisory Council process marks a *beginning* of advocacy and policy change in the realm of the future of work and learning, it was the most appropriate scope for our work.

Allowing for different types of learning and knowledge. The last, related, theme that emerged was around the different types of learning facilitated through the process. In part due to the diversity of the Advisory Council and the breadth of the topics covered there was always a desire for deeper knowledge at different stages from different members. This because of differential knowledge levels around the policymaking process, programs, and equity. Further, there was a desire for greater context around historical policy decisions that have led to the status quo, in addition to generating a collective understanding of what the status quo is. As

different organizations dig deeper into any set of policy recommendations, or systems analyses, thinking about the types of knowledge that are privileged and accessed is critical.

Policy & Implementation Learnings

One unique benefit of the council process is that we were able to concurrently identify solutions and places where implementation challenges may arise. Advisory Council members, who often work within one distinct space, were able to talk to individuals that may not recognize how something might get mistranslated from the ideation and policy stage to the implementation stage. In the day-to-day world, this is needed at a much larger scale. One theme that arose throughout the advisory council process was the need for technical assistance, beyond additional funding.

Moreover, when thinking about sources for funding, many council members first thought of foundations and nonprofits as a source of support. This could be reflective of the way Colorado has chronically underfunded postsecondary and K-12 education systems, in particular since the 2008 recession. While Colorado may enjoy a supportive foundation culture, it is problematic when basic services are left to the ability of a foundation to support a pilot program. This could also be reflective of the uncertainty generated by COVID-19 around the economy and the state budget in particular. Examining ways to ensure the fiscal resiliency of our state budget to be able to sustainably fund our systems is critical, beyond the programmatic policy recommendations made below.

Appendix D: Advisory Council Composition by Organization

Table 7: Future of Work Advisory Council Membership & System Representation

Organization	Systems and Perspectives
Arapahoe Community College	Postsecondary Education; Workforce Development
Associated General Contractors of Colorado	Career Pathways and Workforce Training
City of La Junta	Economic Development
Colorado Department of Higher Education	Government
Colorado Department of Labor and Employment	Government
Community College of Aurora	Family Support Services; Postsecondary Education; Students
Community College of Denver	Workforce Development; Concurrent Enrollment; Family Support Services
Denver Opportunity Youth Initiative	Youth Apprenticeships
Governor's Office	Government
Grand Junction Area Chamber of Commerce	Workforce Development; Youth Apprenticeships
Innovate+Education	Career Pathways and Workforce Training
Larimer County Economic and Workforce Development Department	Family Support Services
Metropolitan State University of Denver	Workforce Development; Postsecondary Education; Concurrent Enrollment; Students
Mi Casa Resource Center	Economic Development
Park Hill Collective Impact	Youth Apprenticeships
Pueblo Community College	Postsecondary Education
Skillful	Workforce Development
TRIO Student Support Services at MSU Denver	Postsecondary Education
Warren Village	Family Support Services

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