



APPENDIX

The Western Governors' Workforce Development Initiative

The Chairman's Initiative of
South Dakota Governor Dennis Daugaard

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WESTERN
GOVERNORS'
ASSOCIATION



Workforce Development Initiative Draft Appendix

In July 2017, the Western Governors' Association (WGA) launched the Western Governors' Workforce Development Initiative, the central policy initiative of WGA Chair, South Dakota Governor Dennis Daugaard. The Chairman's Initiative leverages the region's best thinking to bridge the gap between prospective workers and employers in the West.

The initiative included a series of workshops across the West in the fall of 2017. Workshops were held in Sioux Falls, S.D., Denver, Colo., Oklahoma City, Okla., and Seattle, Wash. A series of four webinars followed in the spring of 2018 that examined topics that emerged through the workshops in greater detail.

This appendix captures the views shared by panelists and participants at each of the workshops and webinars. It is organized into the following topic areas:

- **Workforce Systems**
 - State Leadership
 - Empowering Industry
- **Changing Perceptions**
 - Multiple Pathways
 - Industries
 - Lifelong Learning
 - Hiring
- **Career Awareness**
 - Career Awareness and Pathways
 - Industry-Education Collaboration
 - Coaching and Mentoring
 - Soft Skills
- **Training & Education**
 - Work-Based Learning
 - Registered Apprenticeship
 - Reengaging Adults
 - Credentials
- **Rural Challenges**
 - Quality CTE
 - Access to Broadband



WORKFORCE SYSTEMS

State Leadership

Role of Governors

- Governors have convening power to create systems. If going to get to scale, will need to start at the state level. (Education)
- The challenge is getting everybody on the same page. Need to align non-profits, industry, education, state and federal partners to agree to shared terminology, goals. (Education)
- At public level, need to coordinate from the top down. Before, Montana agencies only met at the executive level. Then, began meeting at every rung down the ladder. Really has been valuable. (Education)
- Partnership between state and federal are critical. Governors set the tone. They know what workforce needs are in their particular states. Not the same across the region or even across the state. (U.S. Department of Labor Secretary Acosta)
- The state role is to provide technical resources to assist the public-private partners. State governments also must lead by example. State agencies must also work together. Expected to collaborate. (State & Local Government)
- We want to have skills-based training. We want to make that training accessible to everybody. One way to do that is to make sure we have alignment. As Governor of Colorado, I push collaboration hard. For example, I have a workforce and education committee in my cabinets to reduce silos and rigid thinking/internal competition. (Colorado Governor Hickenlooper)
- Connecting education to the workforce is an important area for a Governor to work. (Education Consulting)
- How do you build the talent pipeline? Need to build education systems that lead students into the workforce. (Education Consulting)
- In Colorado, we champion a talent development system. [\[Workforce Development Council's\]](#) role is integration of all systems to create an industry-led talent development system. (State & Local Government)
- Governor Sandoval was hugely important. He was the leader, started with executive order to establish Office of Workforce Innovation, then worked with legislature to make that a permanent office. Was behind support for bills that we have had. Funding piece is huge. Funding went from \$4 million to \$12.5 million to develop programs in high demand, high wage areas. We would not be this far without his leadership. (State and Local Government)
- Governor Hickenlooper's leadership was critical and continues to be. Thorough executive order he created the Business Experiential-Learning Commission to have people from business helping state leaders in different agencies have a broader picture of what the needs of business and industry are. With that he has also brought forward that our state agencies have common goals around access to meaningful employment. One thing that was really critical was his empowerment of everyone to come together and have a common language. We are all using the same vocabulary so we're not



confusing the businesses we work with. Being more intentional partners with business. (State and Local Government)

- There are several options that states can use to leverage federal funding of education efforts.
 - These include the Perkins Reserve Fund, which is part of the Perkins Technical Education Act. States have the ability to reserve 10% of funds designated for local grants to support specific student populations, which includes rural students.
 - Workforce Innovation and Opportunity Act: governors can set aside up to 15% of their funds for statewide workforce investment activities. (Nonprofit)

Sharing Resources

- Turf battles and funding can be the first barrier to integrating a cross-agency, statewide workforce system. Build relationships before talking about sharing funding. Colorado started this work in the middle of the recession. That drove people to work together – deprivation of resources caused collaboration to occur. (State & Local Government)
- We started talking about career exploration and connecting to education pathways: saw lots of different systems in the state and agencies. There are turf battles going on. People like their tools and devalue others' tools. The [Idaho Governor's Workforce Development Task Force](#) emphasized the need to have one spot where everyone goes to. Who will own it? Whose tool will build off? (State & Local Government)
- Lots of hard conversations helped make agencies realize that all are more successful when they work together. Needed lots of patience and some small wins to build confidence. (State & Local Government)
- Must look at what isn't working and have the courage to do different things. Now, the threats and uncertainty of what is happening at the federal level are having impacts. Causes instability in partnerships. State doesn't have the ability to backfill if federal funding is cut. Will meet the challenge, but it is an impediment right now. (State & Local Government)
- Need to carefully inventory resources and be disciplined about focusing them on the alignment goals. (State & Local Government)
- New Jersey created an asset map to identify all the resources available in state agencies and provided an opportunity to link those up. Asked what each program could do to meet shared goals and how they can be combined to have most impact. (State & Local Government)
- One thing we did was an asset management plan for the state, to know where learning entities are, what they are offering, etc. Need to know what you have. (Oklahoma Governor Fallin)
- Website focused on state-wide critical occupations – methodology incorporated across agencies to identify top 100 occupations in the state. The list supports prioritization of limited resources on those jobs that will be more robust. (State & Local Government)
- At end of the day, change is all about money. The biggest hurdle to changing the system is fear of not having enough money. (Business Community)

Longevity

- Turnover at the state agency and the state office of economic development has been substantial. If the partnerships are strong, you can get through transitions and other challenges. (State & Local

Government)

- Regarding gubernatorial transition: In Oregon, the legislature is very supportive. System capacity is helping focus on the system, not individual leaders. (State & Local Government)
- Regarding gubernatorial transition: In Colorado, we have 10 agencies training in sector partnership model. Trying to systematize is the best way to hold onto results. (State & Local Government)
- What do you do with electoral cycles? What will happen when Governors retire? 38 states in-cycle in 2018? Chief state school officers, the average tenure is less than three years. State legislative Education chairs are churning. Industry and community are the sustaining factor...and institutional memory. (Education)
- Is there a problem with industry leading given that their workforce needs will wane and grow over time? Tough issue. Need to educate industry that they need to stick with it. Important to make industry leaders passionate about it. Hard. Can't be about the passion of individuals. How do you build pipeline of leaders? Trying to build leadership pipeline. Do event and get them to there. Next time, ask them to get slightly more involved and then more involved. Meet industry folks where they are, but do it all the time. (Business Community)
- [How do you maintain work across gubernatorial transitions] Where partnership development becomes important. Trying to make investments that make sense to employer partners such that they are engaged and will continue to advocate for the structure going forward. Same is true with colleges. Hope they will continue to advocate as well. (State & Local Government)
- [How do you maintain work across gubernatorial transitions] Washington Governor is a huge advocate for career-based learning. But, this has also been a multi-year effort. This has been a focus for years. Now, have public support for it too. People are talking about 10-year drift. People are worried that it is taking so long for young people to connect firmly to the workforce. (State & Local Government)
- How do you build longevity into programs, to withstand leadership transitions? Coalition from the business side is driving this. (State & Local Government)

Organization

- Oregon has been working on integrating sector partnerships. Have helped local workforce boards to understand what it means and provide tools, etc. Each of nine workforce areas have sector partnerships up and running. At the state level, we have subject matter expert teams to help stand those up. (State & Local Government)
- The sector partnership model is not a normal way of working for people in higher ed. It's very much a paradigm shift. Previously, education gave lip service to working with industry but a lot of times it felt like higher education was trying to pull industry to them. [In sector partnerships] they're thinking and really listening to what industry representatives have to say and are guided through the process. (State & Local Government)
- Everybody is engaging business. From an integration standpoint, what are we doing to really integrate the dialogues at every level? There are thousands going on all the time. We have three bets in Colorado: 1) Sector Partnerships, which are public-private partnerships with business leading the dialogue; 2) Workforce Development Boards, we are continuing to grow and strengthen industry engagement in those; and 3) Industry Intermediary Consortium, a consortium of business-led trade associations. (State & Local Government)



- Colorado Workforce Development Council also focused on alignment – private industry, state government, local governments and educational organizations. Been working to build 23 regional partnerships. The goal of the system is to connect each other and the Development Council. (Colorado Governor Hickenlooper)
- We divided the state into sub-regions and brought together businesses, technical training schools, higher education, state agencies to look at workforce training, best paying employers, etc. Then worked on aligning system in each sub-region...not at the state level. Local economies are all very different. (Oklahoma Governor Fallin)
- The state workforce investment board and local workforce boards are often at odds. How do you deal with that? The structure is often adversarial. In Oklahoma there is tension between state and locals. However, it is rare to have the Governor’s workforce council meet without the locals there. Always tough conversations, but folks will eventually go with decisions on funding allocations based on real data. (Business Community)
- First step for Oklahoma was to develop list of top “critical occupations” in the state. That list was crucial to the design of the [Oklahoma Works](#) program. Specifically built the state program to maximize training leading to the better paying sectors -- energy, IT, health care, aerospace. (Oklahoma Governor Fallin)
- To get data that the state gathers in the hands of counselors and students to help them make decisions, Oklahoma developed data and then coordinated with partners to integrate it into all the work the state does. State labor market information goes to the state education department. Work with sub region efforts of [Oklahoma Works](#). Use data to align programs and degrees with higher education regents. (State & Local Government)
- Work with sector partners [in Washington State] to help align higher education with skills needs of the sectors. (State & Local Government)
- Absolutely coordination with industry should be a priority, but should be left up to states to determine exactly how to engage local business and industry partners. In practice, most states have a formal structure for engaging local business partners through industry advisory committees who review and provide input on curriculum and programs of study. Different states have different approaches that have worked in their context. (Nonprofit)

Empowering Industry

Industry Leadership

- Need vision of the Governor, but need partnerships at local, state and national level. Put industry in the middle of the room. Make the initiatives industry-led. Set priorities and then have industry and educational institutions pull together. (State & Local Government)
- The [Idaho Governor’s Workforce Development Task Force](#) focused on what we need to do. Industry was deeply involved. Industry came forward with recommendations, but also stepped up on what industry’s role should be...not just state and federal roles. Need to have shared vision and shared responsibilities. (State & Local Government)
- One of the things we will have to face is building true industry partnerships. In the past, efforts have failed to keep industry at the table. Have to try different approaches. (Education)
- Don’t drag folks to the table. Work with the willing. Nobody is left out because they came late. Industry leaders need to have it be industry-led. That is the way to keep them involved. Realize that

it is OK to fail. (State & Local Government)

- Nobody has been pulled to the table. Industry needs it to be different. Have to be valued and results-oriented. Need to solve industry problems. There are all these advisory groups causing fatigue. Industry is asking us to get it coordinated on the government and education sides. (State & Local Government)
- People respond better in crisis. Retirement of baby boomers is a real crisis. Keeps folks at the table. Also give private sector people a set of tasks coming out of each meeting. They need to have something to engage on. (Business Community)
- Employers have to know that the state agencies will listen to them and then actually take action. That is the only way to keep them at the table. Work hard to be responsive. (State & Local Government)
- We need to take full advantage of this moment. Need to build partnerships that build value to keep employers at the table. That allows change in culture. (Business Community)
- Working on ways of galvanizing employers to community skills needed locally. What other skills-based training is necessary to keep them there. How do you mobilize? (Business Community)
- Don't underestimate the business partners. If you bring them to the table, industry will help you. (Education)
- So many times, government asks for input and then goes away. The fact it was business-led was important. (Business Community)
- Businesses are setting the criteria. The consistency helps the training help all. (Nonprofit)
- All the players (agencies, higher education, businesses) sit in the room together and discuss the same data. Sustained engagement over time helps develop the trust factor. (Business Community)
- Lots of employers have resources to run work training themselves. How do you further lower barriers to companies doing their own training? (Business Community)
- For [Oklahoma Works](#), success is that it is business-led. The [KENs](#) (Key Economic Networks) system is successful where we have business leaders really energetic about the goals. That is the challenge, too. Business leaders are busy. In areas where we don't have a strong leader, we're not as successful. (State & Local Government)
- Industry wants support of government and education...but either way will get employees trained. It would be great to integrate with those other pillars. Would help greatly. (Business Community)
- Industry can help cover some of the hard capital costs for vocational education. Need technology equipment, like diesel engines, that is up to date. (State & Local Government)
- Businesses need to build programs around what their local education source is. (Business Community)
- What does it take to encourage businesses to participate in work-based learning? Have Governor who got out in front of this. He/she pushes it hard. Important to have that kind of leadership. It is a cultural shift. Also, need to reeducate businesses about their role. Finally, need to convince parents. Need to reprogram around success. Built belief there is less dignity in work that doesn't take four-year degree. (Business Community)



- We're looking for a return on investment, but we also feel it's important to invest in the quality and caliber of workforce in our state, so that there is more talent out there to access the kind of jobs that go unfilled. (Business Community)

Efficiency/Associations

- A lot of industry engagement relies on systems approach, especially when it comes to the way used to get the word out and keep people informed. Need a variety of communications. (State & Local Government)
- Want to explore the point regarding businesses and schools needing connectors to put the two together. In some states, certain sectors don't have an association. Who do you go to? (South Dakota Governor Daugaard)
- Everybody is engaging business. From an integration standpoint, important to focus on what is being done to really integrate the dialogues at every level. There are thousands going on all the time. We have three bets in Colorado: 1) Sector Partnerships, which are public-private partnerships with business leading the dialogue; 2) Workforce Development Boards, we are continuing to grow and strengthen industry engagement in those; and 3) Industry Intermediary Consortium, a consortium of business-led trade associations. (State & Local Government)
- [The Workforce Development Council] worked with sectors to help figure out what are the critical occupations and start breaking down into critical competencies to find out what is missing so that industry is recognizing the credentials being pumped out and the competencies being training to. Once all of those are collected, they are put out as a free resource. (State & Local Government)
- We went out to all industry sector partnerships and started with the state talent pipeline report. Can't cover all those jobs. Instead trying to do a pathways approach. Started by breaking jobs down into critical competencies. Even in health care, the competencies look very different in each region. Have data sheet for each region with critical jobs/competency. Helps gap analysis. (State & Local Government)
- Need businesses to go from being consumers of talent to being creators of talent. (Nonprofit)
- Two years ago, aerospace industry approached Utah's economic development office and the governor wanting to work together. Within six months had the [Utah Aerospace Initiative](#): a public education and industry-developed curriculum for 10th and 11th graders and work-site learning experiences (externships, shadowing, etc.) Other industries took notice of aerospace. Now Cummins and other engine manufacturers want to do a pathway program as well. Following same model for Diesel mechanic program. (State & Local Government)
- Use industry associations as entrée to businesses. Need to bring businesses together to see if any of the skills fit in current pathways. Need sponsoring organizations, so associations are where focusing. (Business Community)
- Work with associations and regional partnerships to take industry competencies to see that they get built out for critical pathways. Focus on jobs that: pay living wage, have growth curve for the next 10 years. (State & Local Government)
- There are many business leaders who want to help. They need some direction. Specific channels for them to tap into is important. Partners for Action is a good example. Work with local school districts on discrete projects. Business people can provide time, money or in-kinds. The organization

matches them up. (Business Community)

- [Oklahoma Energy Resource Board](#) is a convener for energy businesses. One of things they do is work to develop specific software training. Sector has big companies, but many small ones. A convening organization can come up with curriculum that can benefit the entire sector. (Business Community)
- To better connect business to higher education, try to enable a single point of contact concept when private sector deals with state agencies or federal government. (State & Local Government)
- The [U.S. Chamber of Commerce Foundation](#) engages employers around “Talent Pipeline Management.” Uses model of supply chain management. For years, people bemoaned employers not being at the table. The Chamber is helping change that nationwide. They released an online curriculum for approach. (Business Community)
- [U.S. Chamber of Commerce Foundation’s](#) function really is to be the hand-holder between education and business leaders. (State & Local Government)
- Montana has the first joint position between university system and Department of Labor. Focused on bringing in industries and then having colleges respond. (Education)

Small Businesses

- When we talked to community colleges, they have great alignment with large businesses. When told about small business needs, they told us they can’t train small business workers. (Business Community)
- I don’t know that many local businesses on the small to medium side have the resources or time to commit, larger companies absolutely can help guide and steer some of those discussions, but you end up maybe with a limited perspective than in reality what is happening in any given area. Schools are dealing very locally, because local businesses are the immediate end users. (Business Community)
- Very hard to solve for small businesses. Increasingly, we will need to have neutral entity to help various sectors, for example [LaunchPath](#) in California. (Nonprofit)
- Integrating small business into forums like Governors’ Councils is one way to build trust. Small businesses end up doing their own training for non-engineering employees. Really need support and trust – can technical schools provide standard certifications that can be depended upon? Large businesses are willing to take on credentialing responsibilities. Small businesses must figure out how to meet requirements large organizations can readily agree to. (State & Local Government)
- It often seems that government and education are always looking at large employers. Small employers may not know about the challenges coming toward them. Involve smaller employers. Powerful to get big and small employers together to do programs. Education and government can help bring all employers together. (Business Community)

Pace of Change

- Education moves really slowly. Industry changes really fast. Need to figure out what challenges education can realistically meet and then look at what can be done through alignment to improve on that. Getting things aligned so there is more flexibility. That helps build the relationship and trust with industry. Education needs to listen to industry. (Education)
- Education isn’t working at the speed of business. We are challenging government and education to be innovative. The current model for high school doesn’t allow time for internships, even when

industry can guarantee employment in a year. Can't integrate those overnight, but we should be able to move these ideas in a year or two. (Business Community)

- Community college system has been responsive to industry input. They can quickly respond to design and implement curriculum. Fast-track programs. (State & Local Government)

CHANGING PERCEPTIONS

Multiple Pathways

- Connect education to careers. Value all pathways to meet career aspirations. This is a big cultural and institutional change. State government isn't oriented to valuing all pathways. (Education)
- Owe it to youth to let them know which degrees have value in the marketplace and which do not. There are many roads to heaven. Need to make sure all young people understand the menu of pathways. Parents have to be educated as well. Need to redefine success for parents and students alike. Success doesn't mean the same thing it used to. (South Dakota Governor Daugaard)
- Most current workforce development policies were designed four to five decades ago for an economy that was very different. The technology-based economy of today needs different systems of labor and capital investments. (Business Community)
- Adults need to bring kids to the table on conversations about their futures. Want students to make informed decisions about all the paths available. (State & Local Government)
- Tough part of this is the elitism around what is defined as "success" in education. Question is not only how you put career opportunities in front of kids. It is also how folks can expose kids to the concept of the "dignity of work". (Business Community)
- Work has dignity. People want to be proud of what they do. Giving people skills helps build self-identity. (Washington Governor Inslee)
- Need to make more acceptable the other paths to career success. Need to reaffirm the dignity of work. Many well-paying careers are available without a college degree. More than 30 million jobs don't require college degree but have annual income over \$55,000. Need to find value in the career each American chooses to pursue. (State & Local Government)
- With funding provided in the [Build Dakota](#) agreement, we were able to use marketing to raise awareness of technical education and the results (e.g. high wages). We focused on highlighting the necessary critical thinking (we call students "skilled scholars"). The real value of the campaign was marketing to SD students and families. (Business Community)
- Vast majority of CTE students are going on to post-high school education. Today, CTE is launch into their next stage of learning and career. (Education)
- While in Switzerland, met with hundreds of companies and thousands of apprentices, and were blown away by what we saw. Apprenticeships can change things fundamentally. Path to success has many beginnings, but not all start with college degree. (Education Consulting)
- For apprenticeship to work in America, five big cultural shifts must happen:
 - Need businesses to go from being consumers of talent to being creators of talent;



- Need to move from non-four-year-college stigma to esteemed pathways;
 - Need to move from universities being assumed as the only path to one of many paths of success;
 - Need to make sure that apprenticeships have permeability baked in. Should have pathway to longer career;
 - Need to move from thinking about programs to systems. Systems take more collaboration and planning. (Education Consulting)
- Boeing shifted their hiring practices. Used to hire just 3% of employees right out of high school. Now hiring 25%. 25% used to be the percent hired from community college, now they are upping that dramatically as well. (State & Local Government)
 - Difficulties are widespread. The stigma attached to technical education is very real. Matters how we talk about it. Kids didn't light up when we talked about manufacturing. When we framed it as working in the aerospace industry, kids lit up. (State & Local Government)
 - Work-based learning gets past the stigma of vocational tech. (State & Local Government)
 - Have to get past the idea that these are dead-end careers. Utah has stackable credentials. Pathway programs have to be stackable to the next stage (i.e. to Associate Degree, which stack to four-year colleges). (State & Local Government)
 - Talk about going to "college" because technical schools are "college" as well. (State & Local Government)
 - Executives have said if kids will get credentials, it will pay benefits. We will help pay for college. This idea of another way to pay for college is very important for parents. Need to communicate better to parents. It is not an "if/or" system. (State & Local Government)
 - The Governor summed the topic well: we want to create a new paradigm for workforce development. Only one-third of kids ever get a four-year higher education degree and many jobs don't require four-year degrees. That gap is the core of the career pathway challenge. (Education)
 - Concerned about setting up false dichotomy: 52% of workers in the future will need four-year degree and above. And we need pathways for the other 48%. But we need both. (Education)
 - Oklahoma's Individual Career Academic Plans (ICAPS) are key [to getting over 4-year college bias]. In two years, ICAPS will become graduate requirement for incoming 9th graders. (Education)
 - South Dakota is working to redefine success. Kids don't necessarily need to go to four-year college. Other paths can lead to careers with great success. With so many options out there, need to make sure students understand them all. (South Dakota Governor Dugaard)
 - "College for all" goal was never successful. Previously, the only pathway from high school to middle class was through a bachelor's degree. Didn't work. Only a third of students did this successfully. (Business Community)
 - The perception that blue collar jobs are gone and only way to get to good jobs is through a four-year college education is deep and wrong. Lots of good jobs that don't need BA Degree. 30 million current jobs don't require that degree. 24 million of the 30 million pay more than \$34,000.00 annually. Minimum livable wage is \$32,000 annually. "Fallacy of "BA or Bust." (Business Community)

- Still need to meet the goal of changing the fundamental premise that students need four-year degrees or they are failures. Have to change that. (Washington Governor Inslee)
- Redefining “success” from graduation to placement [in a job or further education program] really important. Focusing on career first helps change everything for kids. Helps give them a frame of reference to make school relevant to them. (Technical College)
- Would like to emphasize that it’s not just apprenticeship, or community college. Starts with K-12. That is where need to start preparing kids. Can’t just offer college, or apprenticeships. Need different choices. (Business Community)
- For 25 years, the state has done a great job of reducing its funding for education and top STEM degree programs. During period of accelerated job creation, higher education funding has gone down. Right now, we can address this in only a few ways: Increase funding to college system or find another path to develop work force. (Business Community)
- Cost of college – Pain has reached way into the middle class. Now, skills training may be one of the best paths for folks to eventually get college degree. (Business Community)
- Now talk of vocational education differently than in the past. Growing acceptance in vocational education in high schools. Many states are taking on this as key policy focus. Perceptions are beginning to move. (Business Community)
- We’re trying to shift the mindset. A lot of time people think young people are not capable of reaching toward these high demand, high wage careers. A lot of the past message kids got was just get through high school. We’re trying to change that. We also have rural areas that don’t see the jobs we’re talking about. (State and Local Government)
- People generally hold the idea of apprenticeship, and its promise to connect people with careers, on par with public four-year colleges and community colleges. (Nonprofit)
- The overall finding is that the public is generally open to the idea of connecting students with apprenticeship, with caveats. Those caveats are that these opportunities need to broaden options and not narrow them. Critical to making that work is that these programs are offering real, transferable college credits that allow students to build on their experience over time. (Nonprofit)
- We must address the issue of stigmatization. If we can’t do better at helping people understand the power of apprenticeship and the great jobs available for someone coming through an apprenticeship pathway, almost nothing that business or government can do will have the success we want. (Federal Government)
- Apprenticeships are under-supported in Idaho. High school counselors argue not to talk about them [to students] because apprenticeships don’t help schools with statistics. They only got rewarded for students going to higher education. (Business Community)
- [Aptitude testing] is an option for states to consider. Larger question is whether we are biasing the choice for students and parents. State counselors have an incentive to push kids with aptitudes to the college-related career. (Education)
- Perception of work in general is a huge issue. How do we make people feel that their career is a very important thing to start self-discovering at a young age because you spend the bulk of your life doing that? Talk about what happens after college. A lot of guidance efforts are focused on what school you will go to and not what major you will choose or what you’ll do after. We’re hoping we change that perception of work in general so that people start thinking about their career when they choose

where they want to go. (State and Local Government)

Industries

- The natural resource sector looked at the perception of their industry. They are perceived as dirty, bad stewards. Must change public perception to reflect the current reality in those industries. (Education)
- [Home Builders Association of the Sioux Empire](#) is educating parents and educators. Hold student counselor lunches to educate how industry is changing. Take them out to tour partially-built house to understand the process to build a home. Shows that skilled workers are needed to build houses. (Business Community)
- [Northern Colorado Manufacturing Partnership](#) is starting to work with community colleges to develop skills-training. Right now, it is viewed as “non-credit” (hate that language). Cooperatively developing course work using current employees to teach. Teach in factory. (Business Community)
- Love idea of bringing parents into industry. The parents need to be educated that certifications have value...and not just in one state or company. (Business Community)
- To reimagine industries and expose parents and students to manufacturing today, need to get manufacturers to open doors. (Business Community)
- Need to use social media and targeted messages with unique videos to get to parents and students directly. (Business Community)
- Welders 10 years ago had absolute routine. Today, they work on all kinds of different projects in a day. They are using automation and checking quality control. They need to work collaboratively with other team members on problem-solving. They have a voucher in their pockets to use for any kind of training they want to take on the side. They get profit-sharing in their checks. The company is more profitable than ever before. (Business Community)
- Much more high-tech than used to be. Have guys who have learned on the job. Everybody is looking at the same documents real-time. Takes lots of technology and growth among project management level of the business. (Business Community)
- “[Colorado Manufacturing Rocks](#)” did a great job. Trying to get across the point that manufacturing isn’t dark, dirty and dangerous. If we can get kids active and to understand the manufacturing environment, it makes a big difference. (State & Local Government)
- Came to 10 policy levers most important to onshore manufacturing: #1 was workforce development. Rebrand what it means to go into a manufacturing job in the U.S. Need to change perspective of young people. Need to understand pay and growth opportunities in manufacturing. (Business Community)
- Industry can help make the “value proposition” for parents by laying out what the compensation and benefits are. Hard to make kids want to be machinists, if kids don’t know what that is. Some companies are using commercials to help reset the frame of what advanced manufacturing is. (Technical College)
- Shops are not dirty. I have figured out how smart people are that go into these trades. The shops care about expanding the knowledge of their workers. A guy I work with started as a high school dropout and worked in jobs where he was good with his hands. Now he is going to technical college. With apprenticeship, can do whatever you want: I could go to technical school – I have leg up on that.

Or, I can go to college with different perspective than anyone else. (Youth Apprentice)

- Part of the deceptive part of the designation is how the job is described. We have people called “machinists.” However, they are actually computer operators. (Business Community)
- Never been a time more exciting to be in manufacturing. Yes, there are machines...but the machines must be managed, serviced and supported. Huge job possibilities. (Business Community)

Hiring

- [Change in construction industry] Hire lots of people at the lower end of scale and give first opportunity to have job. Clients want things quicker, better, cheaper. That will continue to increase. (Business Community)
- [Skillful](#) is about orchestration. Lots of good efforts out there. Many projects are trying to do the same thing using slightly different language. Need to get folks speaking in common vocabulary so talking to each other not past each other. Work with workforce councils is a big piece of that. (Nonprofit)
- Part of the challenge is helping potential employees understand what it takes to do a job. Collectively, we have a challenge to accurately describe jobs and help jobseekers understand what skills they have that can be applied or the pathways to use those skills at other jobs. Need to explain what is involved in good jobs...how they can get from here to there with training...and how do you get back to employers about changing vision of what people with other experience can do. (Nonprofit)
- Love hiring veterans. There is a challenge to translate skills into a civilian workforce, but such great source. Because Walmart is in such diverse communities, hiring diverse communities. Challenge isn't getting them in the door, but rather recognizing all the skills they bring and using that to the highest level possible. (Business Community)
- At entry level what Walmart stores want most is trainability and work readiness. In more specialized roles, they need different skills. (Business Community)
- When we survey employers about what they want, descriptions are not going to capture marginalized workers. Employers haven't considered them. Often the best people for some jobs don't make it through the interview process. (Business Community)
- A little shocking is that medium and small employers have lack of systems in place for hiring. Very dated. Many assessments being purchased aren't being used well. If they can't track what makes a successful employee, then they're just shooting in the dark [with hires]. (Nonprofit)
- If we set high expectations for kids, they will rise to meet those expectations. (Education Consulting)
- Where should a business start? Starts with understanding where you are in the community in which you are participating. Start with tools that are already developed that can be adapted. Understand who are the set of actors in my environment who want to do things different. Don't spend too long on something. Try, if it doesn't work, try something else. (Nonprofit)
- When employers are trying to hire, they want folks who can do something. Degrees can be a rough proxy but there is a better way to do it...[Skillful](#) has done work with employers to do skills-based job descriptions and interview tools. They are available on the website – focused on advanced manufacturing and IT so far. (Nonprofit)

- If a jobseeker completes three WorkKeys assessments, they can get a certificate. Good indication about a person's ability to learn on the job. (Nonprofit)
- Have done lots of work with veterans. One of the big challenges is to how to explain their skills and how those skills apply to other jobs. But, you have to work with employers to get their job descriptions to be skills-based and align. LinkedIn has done a great job of deconstructing peoples' resumes and what can be applied to. However, if hiring managers aren't thinking the same way it won't work. (Education Consulting)
- Comes down to being very clear about what skills you want and then shift the hiring process to focus on that. Real mind-set shift. In talent management, we are at the beginning of the journey of applying data to hiring. Analysis helps give hiring folks feel more comfortable about hiring in another way. (Nonprofit)
- Education and training is important, but it needs to be based on better skills-based job descriptions. (Education Consulting)
- Skills are more important than degrees. Skills-based hiring is much more effective than education. Soft skills like attitude are the most important. Level of education is going lower and lower on the list. (Nonprofit)
- [Skillful](#) is doing an effort with the Larimer Workforce Center, community college and manufacturers, to provide training workshops with employers to teach them how to describe the skills they need. Community colleges are involved to help fill gaps where training isn't there yet. (Nonprofit)
- [Credential Engine](#) will help employers reimagine how to define jobs away from certain educational requirements and toward competencies. It allows data to be cross-cut to pull competencies across industries. Can search by a skill and it will pull out those credentials that test it, regardless of industry. (Nonprofit)

Lifelong Learning

- 85% of the jobs that will exist in 2030 haven't been created yet. That means 85% of jobs of today will be gone. Need to figure out how to look ahead and train to that. Otherwise, we are just training to temporary jobs. (Education Consulting)
- The challenge is technology-driven. The speed at which technology is changing various business sectors has started to drive a gap. Educational training is increasingly training for structures that no longer exist. Skills have to be focused on ongoing educational training to keep up with moving technology. (Oklahoma Governor Fallin)
- A lot of what we are working on [Oklahoma] is how to change culture to life-long learning. Have been testing the hunch that the problem has been we haven't been expecting more. (State & Local Government)
- Culture doesn't change quickly. Moved from a three-letter log-in to a four-letter log in. They fought on that. Today, 20 years later, fundamentally different. Technology has changed. Customer expectations are higher. Big question is whether we can get the humans to change to keep up. (Business Community)
- There are basic skills. But at the end of the day, the question is: how are employees responding to change? (Business Community)

- Very important that employees understand that lifelong learning isn't a luxury. It is a necessity. (Business Community)
- To hire employees who can adapt to changes: Have to be good listeners. You want someone who will ask questions, listen, consider new ways to do things. (Business Community)
- Stop repeating repetitive training. Repetitive action jobs will go away. The only place we will see increases is creative work (those things AI can't manage). Train for creative thinking. (Education Consulting)
- As we plan apprenticeships, want to make sure there is a focus on continuous lifetime learning. Focus on stackable, seamless learning. (Business Community)
- For existing workforce, community college training system is critical. Scaling up community college isn't just for apprenticeships. (Business Community)
- Adult population needs on-ramps for retraining. If we create a culture of life-long learning and apprenticeships, it should work for adult learners as well. (State & Local Government)
- Feel like college degrees have shelf life of four years. Have to keep doing things to keep that fresh. Now, responsibility transferred to the employers for people to continue skills development for 40-year period. Educationally, we have to shift: employees need to understand that they are getting pay check and have some responsibility to help keep skills fresh. (Business Community)
- ACT assessments can measure aptitude for life-long learning. They can measure ability to learn, ability to take in information and problem-solve. (Nonprofit)
- Education must change to a competency-based approach focused on development of skills. (Nonprofit)
- Keep long-term vision. Need to help young people to launch into the world of today but have to get them oriented to the fact that change is constant. (Nonprofit)
- Have to look at changing nature of work and then design education around that. Rate of change is accelerating with technology. Middle skill jobs now are also highly technical. (State & Local Government)
- We've heard from industry that people need the ability to learn for a lifetime. Not just a four-year episodic period of time. They need to learn over a lifetime and do it in a compressed way that works for people with busy lives. (Education)

CAREER AWARENESS

Career Awareness and Pathways

Awareness and Knowledge

- All students should have exposure to vocational training early on and it needs to be easy for families and students to navigate. (State & Local Education)
- Owe it to youth to let them know which degrees have value in the marketplace and which do not. There are many roads to heaven. Need to make sure all young people understand the menu of pathways. Parents have to be educated as well. (South Dakota Governor Daugaard)

- [Launch My Career](#) website provides information to students regarding programs available and their post-education outcomes...how it much will cost and how long would take in a career to pay off that investment. (Education Consulting)
- Need to connect dots of how to use data. Need to provide tool in a way it is meaningful to the audience it is being presented to (educators, parents, students and employers). (State & Local Government)
- Students are starting to ask questions regarding what kind of jobs they will get coming out of college. It has started to move behavior. Consumer demand helps push program changes. (State & Local Government)
- Need to listen to students and help them understand what they can be. (State & Local Government)
- Kids don't recognize what it takes to run a business, nor the range of opportunities within various sectors. (Business Community)

Connect Learning To Career Development

- Career readiness also involves skills readiness. Must talk not just about what students are interested in, but also be very real about what it will take to get there. (State & Local Government)
- States are becoming increasingly aware that counseling, career awareness and exploration are all critical to put students on a trajectory to career success. Many states already require students starting in 9th grade or earlier to map out the courses and other activities they will engage in each year to be ready for the next step after high school. How could requirements be enhanced to help students make choices to improve the transition from high school to post-secondary and the workplace. What supports can states provide counselors so that they are better informed about occupational needs in their region? (Nonprofit)
- To build a career pathway, need companies to help figure out curriculum, but also need meaningful opportunities for students to actually work. Particularly important on development of soft skills. A career pathway takes the form of field trips and job shadowing...then move on to internships...then move to career training (i.e. apprenticeships or on-the-job training). Addresses big challenges: help students determine what they want to do and build skills. Helps employers identify labor pool. (Business Community)
- Need to make career development a cornerstone of K-12 curriculum. States can help promote that by requiring kids to develop career plan before they leave high school. (Education)
- Career development must be emphasized. When No Child Left Behind passed, it focused on student performance. The great flaw in retrospect was that didn't help them to understand why they are learning. Need to go back to basics to ask: why are they learning it? What will they do with it? (Education)
- To motivate students to match learning to career opportunities, Oklahoma is implementing Individual Career Academic Plans (ICAP). Process, not a product. Begins with families and students. Only successful if have communities and businesses involved. Vision is for all students to get post-secondary certifications to allow them to follow passion and skills. That needs to be informed by information. Students can't be what they can't see. (State & Local Government)
- Individual Career and Academic Plan - Today, need academic AND technical preparation. However, also need employability (soft) skills. All of those come together in the ICAP for the student. Also

includes opportunities for relevant experience: job shadowing, apprenticeships, etc. Experience helps really inform choices. (State & Local Government)

- A number of states are starting to put work-based learning or career-exploration plans in their accountability measures required by federal law. (Education Consulting)
- Stop asking kids what they want to be. Kids don't know. Have no basis for assertions. They make stuff up. Need to ask kids different questions: what problems do you want to solve? What are you fascinated by? Need to think about this as a "talent development" process. (Education)
- Did benchmarking of students after the first Career Academy cohort in Nebraska. Started to impact lots of other things. Truancy went down because the kids know why they are there. (Education)
- Nevada is committed to improving student-to-workforce transitions. We have elevated the discussions on college and career readiness in Nevada. Designated high demand, high wage pathways. Senate and Assembly bills passed to support the drive to improve state career readiness. (State and Local Government)
- Nevada has a new college and career readiness diploma. Foundation was based on advanced diploma requirements. Includes the same requirements as an advanced diploma plus endorsements -- college ready, career ready, or both. (State and Local Government)
- One thing that is critical is the intentional pathway for a student. In Colorado, we have access to all CTE students – we manage and support CTE for middle, high school, and post-secondary. We try to connect all 3 levels and develop programs of study as a continuum. (State and Local Government)
- In Colorado, 40% of classes taken for concurrent enrollment are CTE. We require those connections to happen – to earn funding, secondary CTE programs have to have concurrent enrollment, an articulation agreement, or a service area partnership with a 4-year institution if that makes more sense for the program. (State and Local Government)
- Major barriers for CTE dual enrollment courses – securing qualified instructors, facilities and equipment, student participation costs, tuition and materials, student eligibility requirements, branding and marketing. It's not clear that any state has successfully solved all of these, but many are tackling one or more. (Nonprofit)
- For the most part, states don't have policies in place supporting differentiated dual enrollment. States could adopt policies to create structures and dedicated funding streams for these programs. (Nonprofit)
- New ways that states are integrating CTE and career readiness into high school graduation requirements such as course substitution, allowing a CTE course to fulfill a requirement in another core area, like math or science. States are beefing up requirements for CTE or career ready diplomas. Some states are requiring all student to earn an industry recognized credential. (Nonprofit)
- The Perkins Act is a very flexible law and there are a lot of ways that states can leverage that federal investment to advance their work. (Nonprofit)
- Think about states having a larger career readiness vision and using federal policy as a tool in their toolbox to advance that vision. In Washington, any application for state Perkins Act funds needs to demonstrate alignment. (Nonprofit)
- A number of things to get right in reauthorization of the Perkins Act. An emphasis on high quality CTE. More specificity needed to define elements necessary to ensuring high quality programs. 1)

Emphasize strategies that improve alignment across secondary and post-secondary, should align to labor market needs, things like that. 2) Strong accountability and data driven decision making. CTE performance indicators should really provide the feedback necessary for program improvement and evaluation. Connect data to planning decisions. 3) Focus is on CTE program improvement. Critical for emphasis to stay there. But also, states need support to do that. (Nonprofit)

- For both urban and rural areas, we're trying to prepare people for more than just their first job or one job. We create a foundation of education that will serve them across several industries and across the arc of an entire career. (Education)
- We know that they can't learn everything in two or four years that they need for a lifetime. We focus on how we give them solid, fundamental skills that will serve them in any industry. These include solid writing skills, a sense of numeracy, and a sense of how to manage data and where to look for good information. (Education)

Measuring Success

- School districts have accountability measures based on academic performance. Not based on career-related goals. (Education)
- New federal requirements are now starting to require state plans to develop accountability measures for both academic and career-readiness goals. (Education Consulting)
- To advance all pathways, states can recognize industry-led credentials as part of high school graduation requirements and set guidelines at the state-level on what credentials count. Now trying to include these industry-recognized credentials (those actually leading to careers). (State & Local Government)
- To advance all pathways, state policy can support dual credit. Dual enrollment has been doubling every several years. That growth needed guidelines. Determining what credentials are valued, looking at how colleges see dual-enrollment. That needed state policy. (State & Local Government)
- Change in Colorado's K-12 matriculation law – in the past schools were only judged on the 4-year going rate of their students. Legislation said what about other forms of post-secondary education. Why shouldn't schools earn credit and be recognized for all forms of post-secondary education. Now certificate programs and associates programs are being counted toward that matriculation rate. (State and Local Government)
- Part of the accountability weighting in the state [Oklahoma] will have a career-readiness measure included. Have been discussing recognition for schools that are moving toward career readiness goals. (State & Local Government)
- In Perkins Act reauthorization there can be a greater emphasis on things like career counseling and individualized learning plans. In current law, there are some barriers to spending Perkins funds in the middle grades. We'd love to see those lifted so that career exploration can start in the middle grades. (Nonprofit)
- One of the drivers was related to what states included in ESSA state plan. States use the accountability provisions as the most direct and most leveraged vehicle for incorporating career readiness in their plans. South Dakota has a college and career readiness indicator weighted at 25 of school score. (Nonprofit)

Industry-Education Collaboration

- The only way a lot of educators know to engage business community is through money. What we need more of is to use their expertise and time. (State & Local Government)
- Education and business can no longer be siloed. However, that means each side has to actively seek connections with each other. That is where opportunities occur. Educators have to go into the community. Businesses also have to step up and meet with educators. (State & Local Government)
- The [Oklahoma Energy Resources Board](#) works in the industry. They can bring those [industry] needs to the Board. The Board can take those needs to the Dept. of Education and facilitate getting both needs met. (Business Community)
- When the [Oklahoma Energy Resources Board](#) went into this, curriculum was about changing public opinion. Surveys started to show that people were aggressively negative to the industry. Been doing curriculum development for 20 years. Schools and teachers – once they figured out it was not biased, but just using oil and gas as example to apply STEM-type criteria, they began to accept it. (Business Community)
- Have started the [Oklahoma Industry and Education Partnership](#) to bring industry and teachers in each summer and have them help identify what the sector needs. Shows that oil and gas isn't just engineers, but also IT, accountants, etc. (Business Community)
- Don't be shy. Don't think business will come to education. Ask them. Small companies may not be thinking about long-term needs because they are short-term-focused. Might help them focus there. (Business Community)
- Need feedback loop back to the school. Businesses needed to know that the school district was backing up the project if they have issues with the internship. (Education)
- Put together a policy framework to help advance engaging industry to focus on education. Highlighted teacher externships to help teachers understand what is out there. [Pacific Education Institute](#) is doing externships for science teachers. Average counselor has little time to work on career counseling. Everybody sees their science teacher. Having teacher who has field experience and can integrate into course work and design challenges. (State & Local Government)
- [Advice for community and technical colleges] Be student focused, but industry-facing. Set goals based on what industry tells you. Community colleges are rapid responders for industry needs. (Technical College)
- At [Lake Area Tech](#), we work with 400 industries. Business folks are mentoring students, teaching classes, etc. (Technical College)
- [Greater Spokane Incorporated](#) helps connect education system and employers. Used to focus on doing so through use of career fairs. Now, have moved to taking students into businesses. Have put business in the driver's seat. We serve fewer students than in fairs but give those students a deeper dive. Helps show kids that there are lots of pathways to a particular job. (Business Community)
- Community colleges are in all the counties. Community colleges are at their best when engaging with local employers. Requires investment of time on both college and employer side. (Education)
- There is a lot of isolation in our education system. Very few educators have had experiences beyond education to make curriculums more relevant to the real world. We are trying to break down barriers between community and schools. (Education)



- Nobody is paid to connect employers to students to create these opportunities. Need system to make sure someone is responsible for connecting-up. Too much information for the old model of high school counselors. Technology platforms can help. (Business Community)
- [Regarding expectations of business community] Scholarships take lots of effort to get off the ground. Internships are also hard. One thing we talked about was avenues for lighter touches with local businesses, like a weekend hackathon. How do you scale interactions that are impactful to students? (Nonprofit)
- Through Microsoft's [TEALS](#) program, computer software scientists volunteer to help teach computer science. It is a formal program to place scientists into classrooms. The scientists train teachers up so that they can teach it going forward. Currently up to 12,000 placements. Has grown from just Microsoft to other companies as well. (Business Community)
- We built pathways out, worked with tech and community colleges, to show students basically from 5th grade how we can engage them tried to educate counselors and schools along the way. Crossland connection. We became an industry training sponsor and started sponsoring that [NCCER](#) curriculum at schools in our area. Key was to get in the schools and help raise the bar on the curriculum and credentialing that our industry finds valuable. And doing that through a variety of means. The suite of tools that we landed on to recruit is the most important part. (Business Community)
- [Crossland Construction](#) hires college graduates and has pathways for them. But the bulk of our employees we need to come right out of high school or tech school and hit the ground running. The intern program supports that. (Business Community)
- [Crossland Construction](#) uses a pay ladder with increases to base pay for employees who have earned credentials like OSHA 10, [ACT WorkKeys](#), etc. It shows that what you do in high school does matter. (Business Community)
- The schools open their arms typically to any industry that wants to help or offer guidance or direction. We didn't have any barriers with schools. I think sometimes the barriers for us were in the minutia of being an industry sponsor, in Crossland's case for [NCCER](#). Great curriculum, great product, but when the rubber hits the road we're in the business of building buildings, not auditing classroom files. The balance between the administrative and technical work and balancing that with the fact that they're businesses. (Business Community)
- We pay a lot of attention to what business and industry is telling us. A full-time program might take us a year to get up and running. I can have a [flex program](#) going in a few weeks. (Technical College)

Coaching and Mentoring

- If you ask kids what they want to do, expose biases of their homes and broader culture they exist within. Need to bring aptitude back into the equation. If you can focus kids on aptitude, then the chances of success go way up. (Education)
- One in four schools doesn't have counselors. What students need is an adult who cares about mentoring them. (Education)
- The problem with mentoring is that they tend to be drop-in. Need mentors to stay with the kids long-term to show they care. (Education)
- Mentoring can come from businesses, community-based mentoring, etc. Many companies think of it as charity. They should think of as strategy. It is a tool to find people with aptitude to take to the

next level. (Education)

- Working with the [U.S. Chamber of Commerce](#) to get coordinators and mentors into every school, as well as coordinators to get those kids connected to local chamber, etc. (Education)
- Need to reach out to kids and give them some attention. Mentoring is key. A lot of what is happening is just giving kids attention. Being present. Maybe industry has to step up. Maybe teachers have to take a different approach. (Business Community)
- Interest and aptitude don't align often. That is where cultural biases show up. There isn't any correlation between gender, race, etc. with aptitude. When you line up with aptitude, you tap into internal motivation. (Education)
- We will never have enough coaches to serve everybody. Ratios are overwhelming. Have started working through high schools with anyone who works with kids, to have them understand the career navigation process. (State & Local Government)
- South Dakota Dept. of Labor and Dept. of Education combined funding to work with four school districts in the state. Focus on career counselling in middle school. Most counselors are dealing with social and emotional issues and don't get to career counseling. (State & Local Government)
- Network in Idaho funded by the [Albertson Foundation](#) for remote coaching. Working with high school and early college. Each student has a remote coach they talk to each week. (State & Local Government)
- [Washington State Opportunity Scholarship](#) is a program about creating opportunity for people who otherwise wouldn't have it and it is all about doing it through a network. This program has always been about a network. It is the first of its kind in the country not because the idea behind it was profound, but in some ways because it was simple and obvious but wasn't being pursued. (Nonprofit)
- [TalentFOUND](#) is a landing place and convening group so that people always know the right door to get to the information they need. All talent development and workforce partnership groups in one location so there is easy access for consumers. (State and Local Government)
- Career pathways legislation how do we identify roadmaps for students, adults, incumbent workers, so that Coloradans know their on ramps and off ramps to careers. (State and Local Government)
- Have CTE counselor funding and training so counselors can earn for their district state dollars for CTE just like a teacher does. (State and Local Government)
- Perception of work in general is a huge issue. How do we make people feel that their career is a very important thing to start self-discovering at a young age because you spend the bulk of your life doing that? Talk about what happens after college. A lot of guidance efforts are focused on what school you will go to and not what major you will choose or what you'll do after. We're hoping we change that perception of work in general so that people start thinking about their career when they choose where they want to go. (State and Local Government)

Soft Skills

- Need to integrate soft skills in early vocational and technical classes. Need to train the teachers as well. Extern programs help handle that. Work up internship and apprenticeship program while kids are still in high school. (Education)

- [South Dakota] purchased a soft-skills curriculum. Eight-hour class focused on things like importance of attendance, appearance, etc. It is a start but doesn't replace the first job experience. (State & Local Government)
- Three ways to build a workforce: retain citizens, retrain citizens or recruit from elsewhere. South Dakota is focusing on retaining citizens. Need kids to be engaged in the workforce. However, 10% decrease in youth engagement in the workforce in the state in recent years. Nationwide, labor participation among 16 to 19-year-olds is now at only 32%. Number of the negatives of kids not being in the workforce: gap in development of soft skills: showing up, getting along with others, listening to boss, respectfully disagree, budgeting, etc. Having youth in the workforce doesn't push out other workers, it pushes them up. (State & Local Government)
- Many schools offer things like [Future Business Leaders of America](#), [Future Farmers of America](#), etc. Those organizations connect class learning with direct action. Leadership, etc. and other soft skills are important and gained through those organizations. (Education)
- You can tell a [4-Her](#) from afar. Youth programs help a lot. They prepare and teach communications and leadership experience. (Education)
- Project-based learning, find ways to perform, get public speaking, etc. Don't blame kids. Need adult feedback to kids so can get mastery. (Education)
- Some of the things we work on: how to talk on the phone. How to dress for success. Teach basic manners and life skills. (Nonprofit)
- How do you teach soft skills? 37 core competencies focused on employability skills. Moving toward performance-based learning model. (Nonprofit)
- Different from 10 years ago - Used to be able to put somebody in an office and let them work on own project. Now, employees must work much more in teams and with clients. Need good written and oral skills - those are getting more and more important. (Business Community)
- What skills do remote workers need? We look for employees that are hungry, humble and smart. Can tell within a few minutes if it is going to work or not. Remote work has a 50-50% chance of success. Different if you bring into HQ for several years and then they move on to remote. That has higher success rate. (Business Community)
- Want kids to be curious, problem-solving. STEM opens opportunities for them to use those skills. (Nonprofit)
- To expose younger kids to STEM problem-solving earlier, engineering is now part of teaching goals/criteria. However, most elementary teachers don't have engineering experience, so we are using the private sector and bringing engineering challenges into the classroom. This excites the kids' imaginations. (Nonprofit)
- Need to get kids out using communication skills. We have internships down to the high school level. That gives opportunity to observe and groom. Often not the best book-smart kids. (Business Community)
- Real time decision-making - how can kids be ready for that kind of work? Communications skills are key. Have to be relational and confident. It is labor-saving and time-saving. (Business Community)
- Over the last 20 years, telecom systems have changed dramatically. Use of technology is now key. Looking for ways to do things cheaper. Have to continue to up the bar. 20 years ago, when

interviewing we keyed in on technology aptitude. Now, kids are very comfortable with technology. Now, we need to think about how adept they are at working remotely. Need self-starters. Must be disciplined. (Business Community)

- Adults don't let young people work. Regulations are restricting that. [Home Builder Association](#) trying to get programs to get middle schools kids involved. 18-year-olds don't know what work is. Don't show up. (Business Community)
- Colleges train well for hard competencies. Soft skills are not handled as well and need to be trained for. (State & Local Government)
- Soft skills like attitude are the most important. (Nonprofit)
- Soft skills are critically important. They are as important as any technical skill. If a potential employee can't work in groups, write, they are no use to us. (Business Community)

TRAINING & EDUCATION

- Americans have been vigorously consuming more education and training. Since 1996, the proportion of people with less than a high school degree has decreased by 40%. At the same time, the proportion of people with a bachelor's degree or higher has increased by the same percentage. (Nonprofit)
- The largest investment in America's workforce today remains the Higher Education Act: legislation that dwarfs all other federal investments in this area. As we look towards modernizing this legislation and others, it is important that future policy recognize that there are multiple pathways, including a four-year degree, to success in today's labor market. (Nonprofit)

Work-Based Learning

- Quality-CTE programs are integrated – technical and academic – and give contextual experience (i.e. real actions in the real world). (Education)
- “What gets measured gets done.” Arizona used to measure success of schools through test scores. The state developed metrics for school readiness and career readiness. One thing is to give credit for work-based learning. Give credit for students who take dual credit classes, etc. Every state should embrace career readiness as part of evaluating schools. (Education)
- Had meaningful conversation around what work-based learning looks like in Colorado. It's a spectrum ranging from what education leads, which is learning about work, to what business leads, which is learning at work. (State and Local Government)
- In Colorado, some form of work-based learning has to occur to receive state CTE funding. (State and Local Government)
- Focused on dual-tracking: looking to have kids finish high school, have access to next credential (i.e. college AP or classes at technical colleges) and get the kids experience in a real business environment. This is a triple win for kids: keeps them engaged and fully maximizing high school; allows a head-start on pathways and gives them experience that develops soft skills that help support future employment. (Oklahoma Governor Fallin)
- Have advocated for system that prepares all students for career success. Challenge is how to effectively engage employers in career-focused learning. (State & Local Government)

- Number of the negatives of kids not being in the workforce. There is a gap in development of soft skills like showing up, getting along with others, listening to boss, respectfully disagreeing, budgeting. (State & Local Government)
- One of the things that appeals to me [about work-based learning] is that some skills (soft) are translatable to many future opportunities and it is paired with discrete training. In rural area, can't always get the second, but can at least work on the first part. (South Dakota Governor Daugaard)
- STEM and CTE can sit comfortably together. STEM is about solving theoretical issues. CTE is a place where practical problem-solving occurs, and where kids can see why problem-solving matters...so STEM gets applied to real world things. That helps keep kids engaged. (Education)
- [Talent Ready Utah](#) is a priority of Governor Herbert. Set up in six months, now two years old. Looked first at school districts with manufacturing-related programs already in place. Companies evaluated gaps in the curriculum. On education side, worked on making stackable credentials. Education partners were able to make changes quickly to curriculum. Boiled down to two classes (one in the H.S. and one at the technical college) and an internship required for the certificate. State Board of Education signed off, so it can be implemented in other school districts. Have a guide online that tells how we built the whole thing. (State & Local Government)
- [Utah Aerospace Pathways](#) – six aerospace partners came together to set up certification: allow students to graduate H.S. in aerospace manufacturing. A key component is to have done an aerospace internship. Guaranteed at least an interview. Those hired also pay for tuition reimbursement for further education by the new employee. Has been expanded into IT, outdoor recreation, health care, diesel tech. (State & Local Government)
- [Utah Diesel Technician Pathways](#): start in high school for one year of training. They then must go on to a community college for one more year of training. When industry toured the identified schools, found inadequate engines. Contributed 24 engines so the schools with the program are working on up-to-date machinery. (State & Local Government)
- Other things have emerged out of [Oklahoma Works](#). The latest is focused on work-based learning. Working to adapt the European apprenticeship model to work in Oklahoma. Involves everybody in the states with a stake in workforce development. The more students exposed to career opportunities, the more likely they are to hone in on future plans. The more businesses are exposed to students, more likely the students will become full-time workers. Also helps education system because students can see why classes they take are relevant to their future. (State & Local Government)
- [Daktronics](#) employs students because there is a powerful business case. In Brookings, SD, two-thirds of employees were students. Students win because it helps them pay for school and test for fit. University wins because the kids have experience that is translatable to quality of school experience. Company wins because that is our primary pool for hiring. (Business Community)

Apprenticeships

- Needed lots of help from education to get [Idaho Power](#) pre-apprenticeship program started. But we didn't get it, so we did it ourselves. Ended up going to specific rural counties and worked directly with school districts. Now that the program has grown, the Idaho Department of Labor will post it. (Business Community)
- Apprenticeship programs need to come from states, industries, etc. Not the federal government. One size does not fit all. (U.S. Department of Labor Secretary Acosta)

- The apprenticeship model has been used by the building trades for years. Trades invest \$1 billion of private sector money into training per year. Would like to expand that model across all industries. Appropriate for all industries. (U.S. Department of Labor Secretary Acosta)
- [Home Builders of the Sioux Empire](#) started a carpentry apprenticeship program. It allowed the association to tap into more immediate access to workforce. Have long supported technical education and four-year curriculum. Also need two-year technical degrees. (Business Community)
- [On continuing [TAACCCT](#) funding] Flexibility to states is key. Large part of DOL budget flows through to the states. One of the great thing about apprenticeships. Can lead to all kinds of innovation. Apprenticeships tap into diversity early on...has the effect of gaining gender and race diversity. Hearing that businesses are willing to put up money, if educational institutions are willing to listen and model programs. (U.S. Department of Labor Secretary Acosta)
- Apprentices are earning \$80,000 - \$100,000 per year. Many students can't afford education. Apprenticeships allow earn-while-learn programs. (Business Community)
- Apprenticeship programs are not that scary and hard to set up. All it is a structured training program registered with the state or federal systems. There are guidelines at the federal level and folks in states who can help. (Business Community)
- In many states, there are dollars to start new and grow apprenticeships. (Business Community)
- One of the most important things is getting applicants into the pre-apprenticeship program. Work with your Department of Labor and school systems to get folks into the program. (Business Community)
- [Regarding whether apprenticeship programs are promoted through employment agencies] State workforce systems are there to assist those who are unemployed, not underemployed. Apprentices are usually retraining, not first employment. (Business Community)
- Lots of apprenticeship programs are being developed. What we need long-term, in order for businesses to get involved and in order to make it easy for families to be involved, is a system. (Education Consulting)
- In Switzerland, 70% of kids go through a system that is 40% cheaper per student. If we can engage business, this will be transformational. (Education Consulting)
- Business is a battle every day. Not out there to think of great things to do for the community. Have to post a profit. Big problem is a capable workforce. Business doesn't know how to set up apprenticeships. Getting help on how to do it will find a willing audience from many businesses. (Business Community)
- While in Switzerland, we met with hundreds of companies and thousands of apprentices and were blown away by what we saw. Apprenticeships can change things fundamentally. Path to success has many beginnings, but not all start with college degree. (Education Consulting)
- Keys to success for the Swiss (as opposed to German model) – choosing an apprenticeship path doesn't define you for life. They focus on preparing for life, broad skills instead. (Education Consulting)
- Need to make sure that apprenticeships have permeability baked in. Should have pathway to longer career. (Education Consulting)



- Take businesses up on their claim that people are their most important asset. Ask how businesses amortize. With apprenticeships, folks are doing real work and providing value, so businesses can weather downturns without cutting back apprenticeship programs. (Education Consulting)
- [Techtonic](#)'s apprenticeship model – companies hire us to do work and then at the end, they can hire in all the apprentices who worked on the project. Been exciting. Vision is there are all these tech workers waiting to be hired. Why don't we hire rural folks rather than hire to India? (Business Community)
- [Techtonic](#) offers the only software apprenticeship in Colorado and is one of only a handful in the country. In five years everybody is going to do this. The state took a chance on us. (Business Community)
- In the future, there will be fewer and fewer entry-level jobs. To prepare for this, emphasize apprenticeships. (Education Consulting)
- In U.S., businesses are used to education system creating talent. In Swiss model, business community is leading on development of training. Swiss businesses spent \$5.8 billion toward this system. 1% of Swiss GDP. It is not out of social responsibility. It is their core HR strategy. (Education Consulting)
- In Switzerland, businesses are paying salaries of apprentices and paying the associations to bring businesses together to create competencies and curriculum. They work together to grow the pie and pay their fair share. (Education Consulting)
- Helps build longer-term retention. Every apprentice will have one or more mentors. Not a one-way thing. Older employees are also learning from younger person. Grows local talent. (Education Consulting)
- What we are learning is that apprenticeships need to be business-led. Businesses aren't just consumers, but also creators. (State & Local Government)
- Most of the time I was alone in the business community. If this is a government or education program, won't work or scale. Need business community to understand their role and self-interest. Have to stay focused on how this will make businesses more successful. (Business Community)
- Intent on making [CareerWise](#) scalable. No question that it can change workforce for the state. Colorado is the first state looking to do this systematically and state-wide. (Business Community)
- [Independent Electrical Contractors Rocky Mountain](#) has done 1600 apprenticeships. Helpful to reflect where were 20 years ago. As plan apprenticeships, want to make sure focus on continuous lifetime learning. Focus on stackable, seamless learning. (Business Community)
- Businesses facing risk management questions around hiring very young folks for apprenticeships - Colorado passed 12 pieces of legislation to scrub child labor laws to allow kids in there. In the U.S. the floor will be 16 years. Governors can help streamline to get businesses on board. (Education Consulting)
- Regarding retention of apprentices, critical mass helps. 40% of Swiss companies participate. If enough companies do it, they collectively raise the workforce, so cherry picking across companies isn't as much of an issue. Move from scarcity mindset to abundance mindset. (Education Consulting)
- Size of business is irrelevant. Government can be helpful to small business by reducing transaction costs in starting an apprenticeship program. (Business Community)

- There is advantage for going a little bit slowly. For lots of parents, apprenticeship doesn't sound so great. The more that grow foot print incrementally the more durable it will be. (Business Community)
- Apprenticeships – In Europe start in late teens. In U.S., so far are for people in late 20s. Still largely in the trades. Need to expand to areas like health, etc. The benefit is to ensure quality. (Business Community)
- Know that many families and businesses want internships vs. apprenticeships. Bringing same structure to internships as contemplated for apprenticeships. (Education Consulting)
- Four years ago, my principle mold-maker retired. Tried to find successor and couldn't find anyone. [AJAC](#) became my life-line. It gave me a chance to bring apprenticeships to the US. I loved the idea that teenagers could begin to work in industry. (Business Community)
- Glad to have a chance to push this to the recognition it deserves. My company now has one apprenticeship. Our apprentice is 17. He goes to H.S. in morning, then comes to company in the afternoon. He also works full time in the summer. Every Tuesday, he takes college classes through [AJAC](#). We see him as the future growth of our company. (Business Community)
- Not sure what I would have done [if [AJAC](#) didn't exist]. Mold-makers are an aging population. First, I turned to out-sourcing mold-making. Most was coming from China. I spent hundreds of thousands of dollars on that approach, but it didn't work. Then I would have probably tried to set up an apprentice program on my own. However, [AJAC](#) is a saving grace. States that have set up these mechanisms got pressure from industry to do so. (Business Community)
- [AJAC](#) is life-saver. Other states need to look at this model. What sold me on it is that it isn't controlled by government, unions, business or education. Have everybody at the table to get it right. (Business Community)
- Looking at both the education gap and diversity challenges in certain industries, apprenticeship makes a lot of sense. (Nonprofit)
- The IT industry is also drawn to how the [Apprenti](#) model works: rigor of curriculum, training, credentialing etc. (Nonprofit)
- [AJAC](#) wants to create pipelines into industries and then use apprenticeships to 'train up.' (Nonprofit)
- Last year, my principal said they were trying apprenticeship. Employers were skeptical, given the nature of high school students. Throughout my junior year, I was taking machining three hours a day and that taught me the basics for the apprenticeship. My first day in the shop, I already knew a little about running machines. Senior year, I went to school four hours in the morning, four days a week. One day a week, do work to get credits for college (through [AJAC](#)). The whole apprenticeship only takes up a normal school day, plus about 45 minutes. Been able to do everything the regular students do, like marching band. (Youth Apprentice)
- At first being around people who do the same thing every day seemed kind of weird. But when I started talking to people at work they are doing all kinds of things that involve machining. If I start talking to them about work, they are very passionate. I have learned a lot through side conversations with those who are working. Gives me more insight. (Youth Apprentice)
- Big hurdle for giving high school kids jobs in advanced manufacturing is safety but aerospace shops look different today. There is a long list of equipment qualified as "safe" for youth apprentices (where one-on-one training occurs). This student waiver allows 16 or 17-year-olds to do real work.

(Nonprofit)

- There was a concern about lack of maturity. However, the kids who are on the floor have shown great enthusiasm. They bring a good atmosphere to the work floor. (Nonprofit)
- Some software developer apprentices don't have degrees but have shown early talent for developing. Lots of apprentices are mid-career and come from police or military. They have lots of soft skills. (IT Apprentice)
- With apprenticeship, you can do whatever you want. I could go to technical school. I have leg up on that. Or, I can go to college with different perspective than anyone else. (Youth Apprentice)
- [Apprenti](#) was built directly in response to a challenge in the tech industry but every sector has tech need. As talent gap is growing and four-year institution isn't meeting demand (and can't scale to meet that gap) there needs to be an alternative pathway. (Nonprofit)
- Recruiters see apprenticeship as the best way to not only get talent, but also to help diversify. Five years ago, that wasn't what was being said: then they were only pursuing college graduates from about 10 universities. (Nonprofit)
- Advanced manufacturing isn't very diverse either: rural people, women, people of color, juvenile rehabilitation, etc. Pre-apprenticeship training works for everybody. About providing opportunities. (Nonprofit)
- Partner with community college system. When enough demand emerges for sectors, work with community college on curriculum. Helps pay for portion of costs for education attached to it. Idea is to get apprentices coming out with job, educational credentials and no debt. (Nonprofit)
- When spoke with industries and asked them to figure out requirements for four-year college degrees. About 40% of jobs qualified. Found that it is absolutely critical to marry the 40% jobs requiring college degrees with 60% that require less training. They positively reinforce each other to form a competent workforce. Apprenticeship folks have been trained to do the work, but don't get theoretical. Need both perspectives on the job. (Nonprofit)
- "What we don't know could make a brand-new world": apprenticeship allows individuals to be engaged on something didn't even know was out there. Youth have increased choices and gives them a better perspective. (Nonprofit)
- Currently in Washington, in the last spring quarter, 12,000 apprentices were engaged in class at community college. If apprenticeship classes had college credit attached to them, we could keep apprentices attached to college. There is rigor in the classes. (State & Local Government)
- Since 2006, Washington has had [Apprenticeship Utilization Requirements](#) -- state projects had to have 15% of work hours done by registered apprenticeships. Later moved to include transportation projects, then moved to education sphere. Over the years, has been very beneficial for construction work force. (State & Local Government)
- Example: Aztec High School / OK State University / Dell are working on developing apprenticeships. Several seniors are finishing high school with classes at OSU. These credits also stack toward future degree. They are working at Dell at \$15 / hour. All are low-income students. Program popular. Have Junior cohort chosen. (State & Local Government)
- We partner with 30 manufacturers to make sure training level is at industry need. Then coupled training with apprenticeships. Designed to train for industry and then get them into the industry.

This program can be very challenging from perspective of investment and how standards need to change to keep up with technology. (Technical College)

- Most of our apprenticeship programs remain to this day concentrated within a limited range of occupations and industry sectors. Against that backdrop, we can't meaningfully expand apprenticeship in the United States without trying to connect and integrate it into our formal education systems, and importantly, expand it into new industry sectors. (Nonprofit)
- One of the great benefits of the new focus on apprenticeship is that it is no longer being presented as an either-or option, meaning vocational or college. We are seeing that apprenticeship is woven into high school, community college, and four-year institutions. Those partnerships are important to not only improve the quality of the apprenticeship, but also to push back against the negative stigmas of apprenticeship. (Federal Government)
- On technical classes not counting as college requirements: "For students who really get into these technical classes, it really creates a barrier to their access to university. If we are going to grow apprenticeship models within the United States, we have to set them up in a way that it opens doors and it doesn't close doors. (Education)
- In the United States, our apprentices are comparatively old. The average age of apprentices in the United States is closer to 30 than 18. (Nonprofit)
- There's an idea that youth apprentice is a radical idea in the U.S. or will never work here... What we found is that it is aligned and is a mainstream idea. (Nonprofit)
- We always hear about tax credits, but what we found is that isn't really an important lever when it comes to youth apprenticeship. It's how we fund the classroom instruction that students need, as well as a sustainable model for funding the intermediary. That's the biggest design lift for state leaders. (Nonprofit)
- With youth apprenticeship, we feel that states really need to take the lead since they're working with local school districts. (Federal Government)
- Looking to apprenticeship is a way to help reduce the national student loan debt, which is over \$1 trillion. (Federal Government)
- I think parents in general are starting to see this as a positive policy change, but I think we have some distance to travel to find parents who are willing to say 'Yes, I want this for my child.' (Federal Government)
- Businesses are investing because they see this as critical to their success. They are realizing that this serves them well. For apprenticeships to be sustained, they need to see the pay-off. (Federal Government)
- We must address the issue of stigmatization. If we can't do better at helping people understand the power of apprenticeship and the great jobs available for someone coming through an apprenticeship pathway, almost nothing that business or government can do will have the success we want. (Federal Government)
- We've almost talked kids out of the building trades, and these are great jobs that foster entrepreneurship and give people creative outlets. I don't want us to sell the 'new apprenticeship' in a way that says 'it's better' than the old apprenticeship, we just want more options out there. (Federal Government)

- I think one of the biggest concerns with school districts when you say ‘we want to send students to work,’ is the full-time employment allocation of teachers. If you have a staff of 30 teachers, and you’re sending 25% of your students somewhere else, you need to figure out how to create a self-supporting program. (Education)
- We prioritize student learning about not teaching. It doesn’t matter how it’s taught, we prioritize what the students learn. (Education)
- In terms of insurance concerns with students in the workplace: “We first aid certify all our students and OSHA-10 certify all of our shop students. We don’t send unskilled students to the businesses. They’ve already been trained from 7th grade to 11th grade before we place them at a business. These businesses are making money back. That’s a way to answer the return on investment and safety pieces, they’re married. (Education)
- We know that there’s a challenge that’s greater than our company that’s impacting our entire state. If we address this with the youth population, and we can help galvanize this and help other companies in our industry and others, then it creates a ‘rising tide raises all ships’ phenomenon. (Business Community)
- We’re looking for a return on investment, but we also feel it’s important to invest in the quality and caliber of workforce in our state, so that there is more talent out there to access the kind of jobs that go unfilled. (Business Community)
- We want to maintain institutional knowledge and have our young students learn from our leaders who may not be here down the road. We just felt like youth apprenticeship was the right approach for our business. (Business Community)
- If we have too rigid and too baked of a system, then it makes it hard for us to pivot and allocate our apprentices to where they bring the most value to our organization because we’re hamstrung by the registered apprentice model. (Business Community)

Reengaging Adult Workers

- For adults, workforce development activities sit on the non-credit side so no federal funding is available. Means folks have to find money out of their own pocket. [The Idaho Governor’s Workforce Development Task Force](#) suggests some kind of financial aid for these accreditation programs. (State & Local Government)
- On the adult side, Colorado has entered career services alignment. Everybody is working together to identify who the coaches are, use same language, etc. Make coaching more streamlined, more consistent and more accessible. Need to make it easier for students to get to the resources that are relevant to them. They get overwhelmed by the amount of information. Need to use technology better. (State & Local Government)
- To help adults, the manufacturing and energy [TAACCCT](#) grant from the Department of Labor include a facilitator role. They are actively going out and recruiting and marketing directly. Follow through with “intrusive advising.” (Education)
- In trying to connect middle-skill workers to jobs, we can do a lot with tools and technology, but we still need people to help navigate through the tools. People don’t have a good sense of what is available, so coaches can help people trying to figure out new job opportunities. (Nonprofit)

- This depends not only on career training for students, but also involving retraining adults. (Business Community)
- [Tri County Tech](#) developed programs for welding, culinary arts, etc. in half the time of the program for the younger students (as adults are usually more motivated to get it done). Hope to eventually offer all 22 programs in both formats. (Education)
- The Governor’s goal for workforce development can’t be met solely with young people. Stress with employers that additional training benefits you and helps you retain employees. (State & Local Government)
- Walmart wanted to invest in upward mobility, so part of the investment went to training. Building infrastructure to help with readiness for entry-level workers, but also building academies nationwide to provide next level of training on management issues (i.e. personnel training). (Business Community)
- Walmart has taken tremendous steps on how to invest in front-line workers. Important, because Walmart prepares many folks who move on elsewhere in the labor market. Lots of other companies are jumping in as well. (Business Community)
- [Walmart Pathways Program](#) - For all entry level employees to help them understand their role. Also helps them understand path from entry-level job to others. Helps people stay engaged. Trying to retain people in first 90 days. Completion of the program results in a raise. (Business Community)
- Walmart Academy Program:
 - Classrooms added to stores. Focused on frontline management. Improving those skills help store run better, but also helps with employee retainment. Provides leadership skills. Focuses on managing P/L, customer service, how to use demographics in stocking the store. All are tangible stores that are translatable to other jobs. Lasts two to six weeks.
 - Next step: In next year will connect with community colleges. Run the academies during work day. We have facilities that could connect the community. Also talked about how to make learning modules available to other companies. (Business Community)
- [On Walmart’s decision to invest in human capital]. For a while folks have bounced around. We are trying to get back to a model where we keep people for the long-term. (Business Community)
- Open sourcing education doesn’t require being a huge company. Example of a Mom-Pop company that figured out they get a better recruit if they say they will pay for college. Employees don’t quit because they are working toward education. (Education)
- Adults need flexibility, access and affordability. (Education)
- The working adult’s barriers are huge—information technology is at the front of solving some of these barriers. (Education)
- The [Complete Washington Initiative](#) is focused on the adult learner. The goal is to conduct outreach and reduce barriers for 300,000 WA folks who have some college, but no degree. (State & Local Government)
- There is 4.5% unemployment in Washington but that only captures those actively searching for work. It doesn’t capture those who have disengaged. We have a talent pool out there in the adult population. (State & Local Government)

- Adult population has strong need for more education to get better jobs. 97% of good jobs since the Great Recession in Washington have gone to those with bachelor's degree. College degrees increase resiliency. (State & Local Government)
- [On [CareerChoice](#) tuition assistance program for hourly workers at Amazon] The most compelling example is when we get adult learners. We schedule classes from the local community college before and after shifts, on site. Bring the classes to them. 14,000 hourly workers have engaged through Amazon on this. It provides a low-barrier option for people to step back into learning. (Business Community)
- Some people have said it seems like we are paying people to leave. However, Amazon is simply acknowledging the reality that workers won't stay in one place. Also, there is a good business case. [CareerChoice](#) is a great recruiting tool. Folks are happier while they work for us. (Business Community)
- There is a large pool of graduate students that need to be retrained and refocused. (Education)
- Our second point is to provide support services to non-traditional students by enacting the Gateway to Careers Act. Due to the growing population of non-traditional students in secondary education, the needs of today's students entering the education system have changed. For example, a single parent may need some type of child care support to be able to enroll in a course. (Education)
- We've learned that a motivated adult can get the training they need in about half the time for Pell grant eligibility. (Technical College)
- We're advocating for a permanent federal funding stream for support services in the Higher Education Act. The language that's included in that would line up with WIOA and labor programs. (Nonprofit)
- What we see is that colleges are collecting and reporting data to the federal department of education, but only for students receiving federal financial aid. That does not give a complete picture of programs and outcomes. (Nonprofit)
- Our programs are affordable. We have a foundation in place that will help provide up to 2/3 of the costs of the program. (Technical College)
- We also have a portion of our foundation that is available for 'emergency assistance.' If students need temporary assistance, we want to remove any barrier they have for coming to school. If a student's car battery dies, we make it clear that we can pay for it if needed. (Technical College)
- On accepting federal financial aid: "We still believe student debt is out of control. Our approach seeks more student accountability. We would have to think about that very carefully and whether the bureaucracy would be worth the extra dollars." (Technical College)

Credentials

- Data shows that majority of students in U.S. are underperforming. Increasing need for credentials valuable in the workforce. (Nonprofit)
- Significant skill gaps in credentials. Gaps vary economy-by-economy. Need to look at data in state or sub-state and tailor credentials accordingly. (Nonprofit)

- By 2030, the need for credentials will expand dramatically. Number of jobs that are in demand will demand some credentials. What we don't track very well is how to track the value of various certifications. (Nonprofit)
- Individuals with more education and training: unemployment drops, and weekly earning goes up. Strong families, communities and state economies are tied to solving this gap. (Nonprofit)
- Data shows credentials will be more and more important. 77% of the new jobs in 2025 in OK will require credentialing after high school. Plans need to start in early education. By middle school, need exploration opportunities. By high school kids need to develop ICAPs. (State & Local Government)
- In area of competency-based education, need to figure out how to stack credentialing. How do change culture to move from university-centered education structure and to community-based education? How to get business involved. (State & Local Government)
- Competency-based credentials is key. Should signal readiness to work and readiness to learn. (Nonprofit)
- Students who enter educational systems think if they get a degree can get job. Not necessarily. May then need certification/licensure. Often lockstep: graduation from accredited institution to qualify for licensure. Must get license before they can actually work. (Nonprofit)
- In certification, the recertification element always is bringing skills up to current standards. Certification is a life-time credential. Many of these other types of credentialing are not. (Nonprofit)
- Competency-based education: Arranges credential based on person proving that a person can demonstrate competency before giving out the credential. (Nonprofit)
- In order to have value credential, need: quality (can be eye-of-the-beholder), market value and effectiveness. (Nonprofit)
- In manufacturing example: lots of credentials already exist, but most manufacturers say they aren't very successful. Big certifications are around discrete tasks. Those aren't useful to small manufacturers, who need more. (Nonprofit)
- Look for collage of credentials. Need to be able to do a technical task, but also have to be part of a team and system. Also looking for attitude focused on customer. (Business Community)
- Most jobs will describe jobs as needing certain educational requirements. Will employers start to reimagine how define jobs away from education and toward competencies? (Education)
- Linked into Governor's [Main Street MT](#). Connected to key industries. Spent lots of time deconstructing curricula in advanced manufacturing and health care, etc. Allowed stackable credentials to help folks build toward degree programs. Directors do become familiar with credentials prevalent in their industry. (State & Local Government)
- Created 199 credentials that have value in the NJ economy. Have an interagency effort to continue to review over time. Have joined [Credential Engine](#). (State & Local Government)
- Most public companies think quarter-to-quarter, especially in high tech companies. All use job boards. The fact that so many requirements don't need four-year degree or recognized skill or credentialing. (Business Community)

- The Business Roundtable and [Credential Engine](#) are pulling together all the credentials and helps solve issue of determining which credentials are most valuable to employers. (Business Community)
- [To bring state technical training program into the 21st century] Collaborating with a technical college to come up with certificate, which is stackable toward a degree. (State & Local Government)
- Defining and measuring new credentials very hard. Need to have clearly defined language. All credentials must be described in the same language. This important to allow the user of the tool to do apples-apples comparison. Challenges are a lack of common focus, credibility and shared terminology between Dept. of Labor and Education. (Nonprofit)
- More and more, the traditional four-year college is not the awarder of certifications and degrees: community colleges increasingly are where occurring. (Nonprofit)
- States also looking at barriers that keep folks from getting credentials. Example: some grant programs are only for those coming out of high school...not retraining. (Nonprofit)
- Military is also considering being more transparent about credential requirements and how to bridge to states. 250,000 military vets coming out...if more competency-based will be able to bridge and bring more talent into their states from the veterans' community. Only 4% of society has had any relationship to the military. So, most don't understand the highly technical competency that occurs there. (Nonprofit)
- Demand for credentials above a high school diploma is exploding because there is a great need for employers to get good, entry-level employees. (Technical College)
- Data is useful to employers who are looking for available skilled workforce to decide where to locate. Systematically implemented nationwide [ACT Work Ready Communities](#). Brings together economic development, education and workforce development folks on a shared goal. (Nonprofit)
- Chevron approached school looking for engineering technicians. Asked Chevron to get other sector members to see if there was enough need for a program ([Flex Program](#)). [Flex Program](#) possible when [Tri County](#) eliminated relationship with Pell Grants. Lots of restrictions attached to those funds. Chevron needs a training program shorter in duration than Pell Grants required. (Technical College)
- Showing students, parents and employers the post-education outcomes of a credential to help people understand future value of the credential. (Education)
- Over ¼ of working-age Americans now hold a non-degree credential, such as a certificate, occupational license or certification. 67% of those say they earned it at a community or technical college. Significant majorities found their credential to very useful in getting a job, remaining competitive in the labor market and improving their ability to do their current job. (Nonprofit)
- In the last 15 years, certificates awarded by community colleges have more than doubled. (Education)
- Our message is that the HEA needs to be modernized to meet all these different student groups... Our first point is to eliminate the bias against working learners seeking in-demand credentials supporting the JOBS Act. This would expand Pell grant eligibility to students enrolled in courses that are less than 600 clock hours. (Nonprofit)

- We don't take federal financial aid or federal student assistance or Pell grants. We did away with that because of the constraints on certificate programs, at least 600 hours, which provided very little funding to a student. (Technical College)
- The issue of short-term workforce development is probably the most important item for community colleges in the reauthorization of the Higher Education Act. (Education)
- The four-year institutions with whom we have a lot of interaction in higher education advocacy have expressed strong reluctance to provide these new eligibilities for funding for short-term programs. (Education)
- There's differences of opinion on to what extent we should fund non-credit programs. The primary reason for that is we don't know as much about these programs nationally. Before we go into supporting major amounts of support, we need to be certain about Congress' expectations for outcomes. (Education)
- The JOBS Act requires that programs that are eligible for Pell are recognized as valuable by employers, industry or sector partnerships, and that these programs align with broader career pathways. (Nonprofit)
- Non-credit programs play an important role in workforce training because they can be more responsive to changing industries. A lot of that is due to the way they are evaluated. The turnaround time for getting a course approved is faster for non-credit programs. (Nonprofit)
- People want to see some type of parameters in federal law if we're going to open short-term programs to federal money. The opinion on which and how many parameters differ. (Nonprofit)
- The main question is if we should lower the hours for Pell eligibility and not put any other assurance measures. Or, if we need to put assurance measures in place and what should they be. (Nonprofit)

RURAL CHALLENGES

- Western state labor challenges very different. Very excited to see Western Governors take on the challenges for rural states. (State & Local Government)
- We don't have enough folks and those that we have don't have right skills. We don't want to be a talent exporter. (Education)
- [For sub-regions that lack resources, businesses, tech sector] One thing we did was an asset management plan for the state, so know where learning entities are, what offering, etc. Need to know what you have. Then developed a strategic plan. Appointed [Key Economic Networks](#) for each sub-region. Set goals specific to each sub-region. Have been monitoring outcomes to refine. Surveyed businesses about what they are looking for. Didn't set sub-regions based on geography. Were drawn based on economic sectors. Differentiated data based on the sub-regions. Top jobs were also broken down that way. States leading on workforce development, differentiated based on differences. That allows tailoring to local needs. (State & Local Government)
- Research across-the-board shows that if you hire folks from within the state, they are more likely to stay. If you import, they are more likely to leave. About 92% of students who graduate in Washington stay. Graduation from a Washington high school, then a Washington college and having



the involvement of WA employers throughout helps up the odds. (Nonprofit)

- As part of the [Complete Washington Initiative](#), have gone to 14 different counties, mostly rural, to discuss workforce needs. The typical stories: fourth generation logger had a good job until injured. Or the fishing town where people have huge barrier to education because the main road floods every few weeks. (State & Local Government)
- Idaho has a recruitment program but isn't funded well. The [Task Force](#) decided to focus on "grow our own" side the equation. A number of local communities are trying to take on the recruitment side to the equation. (State and Local Government)
- Montana is a great place. People tend to want to move there at retirement age. Looking at how to attract younger Montanans back to the state. Identification of folks who had left small communities and then tried to lure back with telecommuting – expanding broadband, etc. Improve connectivity – that requires funds and infrastructure. (Education)
- Been with company for 28 years. Workforce is stable, but that is starting to change. When think about rural communities, beginning to get tough to attract talent. That didn't used to be the case. We used to be a great draw for high talent employer. Technology has opened a market to live where they wish. Need to deal with changing workforce. 40% of employees will retire over the next decade. Finding talent and developing leadership will be key focuses. (Business Community)
- Low-lying fruit are rural areas. It is hard for people to find jobs that allow them to stay in their rural communities. (State & Local Government)
- In rural communities, whoever goes through the door of small businesses first needs to diagnose the advancement of the business and employees. Technical assistance piece is critical. Need to marry job training and technical assistance. (State & Local Government)
- There is a great diversity of manufacturing facilities in rural areas. The [Make It In Washington Program](#) is trying to increase capacity for these rural manufacturers. There is a workforce shortage and retirements are looming. Many are family-owned and want to keep workers (often family) in their rural community. They are trying to figure out how to get younger people in and retained. (College)
- Advanced manufacturing isn't very diverse either: rural people, women, people of color, juvenile rehabilitation, etc. Pre-apprenticeship training works for everybody. About providing opportunities. (Nonprofit)
- Community colleges are in all the counties. Community colleges are at their best when engaging with local employers. Requires investment of time on both college and employer side. (Education)
- There's generally two key different types of rural communities that are struggling. The first is where people leave due to the lack of work opportunities or they leave for college and don't come back. The other is where the people aren't leaving, but there's not enough economic opportunity and the community is faced with high poverty and educational challenges and high unemployment. Both of those dynamics are important to consider. (Federal Government)
- We see that there's a significant gap in education attainment between urban and rural areas. Approximately 28% of rural adults hold an associate's degree or higher, in comparison to 45% of urban adults. (Nonprofit)
- 4/5 low-education counties are rural and many of these counties are likely to experience high rates of poverty. (Nonprofit)



- One thing we've learned in Nebraska in the rural areas is that housing is a huge issue. Young people want decent housing if they're coming back to a small, rural community. That's compounded when we don't have homebuilders or quality workforce there. Housing continues to come up in all of our rural economic plans. (State and Local Government)
- Across the country, more than half of K-12 school districts are considered rural, and they serve more than 9 million students. (Nonprofit)

Provide Quality CTE

- ID Legislature gave \$5 million for advising. This year it will be \$7 million. Very important for rural district. (Education)
- To provide CTE to rural districts, SD has taken the approach that kids are spread. Technology helps. Kids can take dual credit classes from one of the technical institutes online. (Education)
- To provide CTE to rural districts, have online school with hybrid mentor training locally. (Education)
- Working with companies to provide virtual reality to needy schools. Technology has to be attached to curriculum. Embrace technology to connect remote folks to technology integration. (State & Local Government)
- Washington has made a big push to get extension agents involved. Their job around rural economic development is crucial component. (State & Local Government)
- As we look at programs in Utah, scalability depends on how close the employer is to the school system. Distance of technical colleges also can impact it. The [IT pathway](#) is less dependent on location, so helping in rural work-based learning opportunities. (State & Local Government)
- Easy to scale work-based learning in metro areas. Struggling in rural areas. Hard to make sure standards and structure are met. (State & Local Government)
- Scalability: isn't about importing programs metro to rural. Rather, the sub-regions are allowed to be developed with tools that will work for them. Try to identify what is working there already and scale something up. (State & Local Government)
- One of the things that appeals to me [about work-based learning] is that some skills (soft) are translatable to many future opportunities and it is paired with discrete training. In rural area, can't always get the second, but can at least work on the first part. (South Dakota Governor Daugaard)
- We're trying to shift the mindset. A lot of time people think young people are not capable of reaching toward these high demand, high wage careers. A lot of the past message kids got was just get through high school. We're trying to change that. We also have rural areas that don't see the jobs we're talking about. (State and Local Government)
- One of our shining star examples is Creede, Colo. The new superintendent has reached out to community to see who she has from a retired base as well as who is in the district that has skills that can benefit the students and how we can help them along the teacher licensure route. For example, the transportation director is going to teach an automotive class. Reach into community and see who you have access to bring in and work with students. (State and Local Government)

- Rural students historically for us have the best work ethic, for lack of a better way to say that, but the problem is access to technology. Higher level resources seem to be aggregated into urban centers. The rural students that best fit our industry, with the shift toward tech like 3D modeling, they're missing a lot of that cutting edge technological education. (Business Community)
- Dual enrollment opportunities where high school students work on college campuses are a great way to get hands-on experience with different equipment and technology. (Nonprofit)
- In these regional centers we hire local talent, employed by CSU, to help us connect to those community needs and bring those needs back to CSU. We can then develop solutions and take them back to those rural areas. It's a bridge to those rural communities. (Education)
- Our objective is to say 'your zip code should not determine the quality or diversity of opportunities that you have in education.' We're really doing it through distance learning networks where schools share instruction between each other, and that's worked really well for small, rural schools. (State and Local Government)
- Students can be a bit limited in what they're exposed to in small, rural areas. We created [Virtual Career Tours](#) to highlight three Nebraska companies in each of our 16 cluster areas. (State and Local Government)
- The opportunity for virtual learning and technology really expands education potential, but I don't think it replaces the actual work-based learning program. (State and Local Government)
- The state of Colorado passed a law requiring high schools to inform students about opportunities in trade schools, and what they need to do to follow these rewarding career paths. (Business Community)
- We have a large number of students who really want to go back to rural areas. That's made us think a lot about entrepreneurship and virtual learning options. (Education)
- The Every Student Succeeds Act (ESSA) includes the [Rural Education Achievement Program](#), which is designed to supplement funds to support activities in rural areas. (Nonprofit)

Access to Broadband

- Our concerns are internet bandwidth. Need to make sure our rural schools can share information and teachers. They just don't have those industries. They don't see high demand, high wage jobs. A lot of times even with CTE programs, trying to have completers follow a pathway becomes difficult because they can't offer a sequence of courses. (State and Local Government)
- A lot of our issues in CTE in Colorado are around broadband and access points. (State and Local Government)
- 23 million rural communities don't have broadband. It even occurs in communities near large cities. (Business Community)
- Rural America is being stranded in the dial-up age. Creates opportunity gap. (Business Community)
- 10% of Microsoft [TEALS](#) programs are in rural communities. If a school does not have access to broadband, it can't participate. (Business Community)