

Digital report design: structure, editing and UX

<https://www.jff.org/idea/a-road-map-for-dual-enrollment-work-based-courses/>

Identified key audiences and structured navigation for targeted access to relevant sections

A Road Map for Dual Enrollment Work-Based Courses

Tested strategies for success for systems, educators, and employers



Repurposed testimonials as multi-use "Case Studies" and "Impact Stories" for increased visibility across channels

Structured and cut 9,000 word copydeck by 50% into discrete, accessible segments

Introduction

Today's high school students are eager for guidance and clarity on how to get an education and enter the workforce. But most don't know about options beyond entering the workforce or beginning a four-year degree program. Their parents aren't prepared to navigate the system, either: A 2025 survey by Gallup, the Walton Family Foundation and Jobs for the Future (JFF) found that at least half of parents say they know "only a little" or "nothing at all" about any pathway other than four-year degrees or working a paid job.



Dual enrollment, which allows high-school students to earn college credits before they graduate, and work-based learning, which focuses on offering hands-on paid training, are proven strategies for building strong pathways to good jobs.

Typically, these two experiences are in separate spaces in the school day, sometimes forcing students to choose between two essential approaches. Dual enrollment work-based courses can solve this challenge.

Supported by JFF in collaboration with the Tennessee Department of Education and with funding from the U.S. Department of Education, a group of high schools, colleges, and employers tested the Dual Enrollment Work-Based Courses (DE-WBC) model throughout the state on over 600 high school students. The courses applied the model to dual enrollment STEM and computer science courses and the partnerships found innovative ways to adjust to local context, student needs, and hurdles along the way.

DE-WBC High Schools in Tennessee



★ University High School | ● John Overton High School | ▼ Oak Ridge High School

Organized for SEO and scannability

Key findings from this pilot include:

- Students are deeply engaged in this model, as evidenced by a 100% pass rate across all participating programs in the fall 2024 semester.
- Empowered, supported instructors, with input into course design, helped programs thrive.
- Outside-the-box thinking for employer partnerships, including creating in-school work opportunities, removed barriers in rural areas.

Dual Enrollment Work-Based Courses at Tennessee High School



2 MIN READ

Four Mic-Drop Moments from Horizons 2025

Speakers on leadership, AI, career navigation, and making powerful change

Jessica Ullian : July 2, 2025

Career Navigation Artificial Intelligence Labor Market Quality Jobs State & Local Policy



The first day of the 2025 Horizons Summit, presented by Jobs for the Future, opened with a rueful reflection from CEO Maria Flynn about the call to action: “Dare To Be Brave.”

“Our theme...felt like a really great idea when we rolled it out last year,” Flynn told the 1,500 attendees gathered in New Orleans on June 10 and 11. “But I have to be very honest with you: It has been weighing on me in the months leading up to today. Because this is not an easy time to be a leader, let alone a brave leader.”

But bravery, Flynn emphasized, isn’t out of reach. “We’re not in a hopeless situation,” she said, “and this is not a point of no return.” Instead, she said, bravery means playing the long game, staying the course, and maintaining focus on the “why” of the work that brought educators, policymakers, workforce experts, philanthropists, and entrepreneurs into the room together.

For the next two days, thought leaders and innovators from across the education and workforce fields shared their versions of the “why” and what it means to be brave in this moment. JFF also announced exciting progress toward our North Star—by 2033, 75 million Americans facing barriers to advancement will have quality jobs—and a new partnership for powerful impact measurement.

Here are four can’t-miss moments from Horizons 2025. Share your own on social media with the hashtag #JFFHorizons, and check back here for four more mic-drops next week.



Thasunda Brown Duckett: “History doesn’t repeat itself, but it can rhyme.”

TIAA CEO Thasunda Brown Duckett, the third-ever Black woman to lead a Fortune 500 company, talked about how leadership in this moment calls on us to recognize everything that our institutions have endured to reach this day—and to rise to the challenge ourselves.



Cristina Mancini: "Raise your hand when you see that technologies are being developed that are not just suggesting bias, but that are acting on bias."

Cristina Mancini, founder of Black Girls Code, and Andrew McCaskill, global communications executive at LinkedIn, break down why everyone needs to develop a fundamental understanding of artificial intelligence to ensure that everyone is represented in its development and use.



Chris Sununu: "All the answers are right in front of you."

Former New Hampshire governor Chris Sununu, known for his strategies governing a heavily bipartisan swing state, shared his thoughts on how to make powerful change: keep your focus local and practice strong civic engagement.



Steve Yadzinski: "This is representative of our collective impact, our collective work, and all the hard work we're doing together."

JFF's Chief Strategy and Growth Officer, Steve Yadzinski, and board chair Tod Loofbourrow announced the first results from JFF's partnership with Gallup and the Families and Workers Fund to measure growth and impact towards JFF's North Star goal.

Your Home's Value Is Based on Racism

Wherever they choose to buy, Black people are penalized by white preferences.

The New York Times, March 20, 2021

John, who is Black, and his wife, who is Japanese American, purchased a family home in a suburb of Atlanta in 2004.

When he was interviewed for my book, John — who asked to be identified only by his first name to protect his family's privacy — said the couple chose to buy in College Park, where 80 percent of the residents are Black, because they expected their children to identify and be treated as Black. They wanted the kids “to be in the village of Black community life, and to understand the cadences and relationships that are built there.”

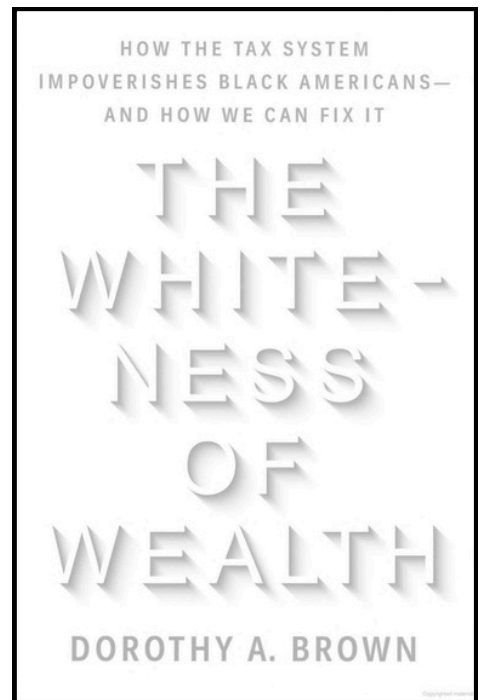
But the family's time in College Park didn't last long. Because of the relatively low home values in their neighborhood and the resulting low property taxes, the public schools in the area were underfunded. So after their second son was born, they decided to move to an area with a better-funded school district.

This time, they bought in Candler Park, an area that is 87 percent white and less than 5 percent Black. In 2014, John and his wife sold their College Park home in a short sale for \$60,000 — \$144,000 less than what they paid for it.

Were they just unlucky? No. Is this massive loss through real estate unusual? Not for Black families. Black Americans are often unable to build wealth from homeownership in the same way their white peers are, in large part because home prices are generally set by the people who make up the majority of buyers: white Americans. White families typically prefer to live in predominantly white neighborhoods with very few or no Black neighbors. Homes in these neighborhoods tend to have the highest market values because most prospective purchasers — who happen to be white — find them most desirable.

Black Americans, on the other hand, tend to prefer to live in racially diverse or all-Black neighborhoods. Research has shown that once more than 10 percent of your neighbors are Black, the value of your home declines. As the percentage of Black neighbors increases, the property's value plummets even further.

A study published in The American Journal of Sociology in 2009 found that “race, per se, shapes how whites and, to a lesser extent, Blacks view residential space.” The researchers showed videos of neighborhoods with different racial makeups to Black and white participants and found that even after they controlled for social class, whites found the all-white neighborhoods significantly more desirable than either the racially diverse or all-Black neighborhoods. The mere *presence* of Blacks in a neighborhood made it less appealing to whites.



This is where the past meets the present. “There’s a carry-over of the redlining and steering days, before the fair housing laws were passed. So the difference in property values almost tracks 100 percent with the demographics of the area,” said Wayne Early, an Atlanta-based realtor and community economic activist.

So if a Black person like John buys a home in the diverse neighborhood he prefers, his home is likely to not appreciate in value as much as a home in a white neighborhood. But if he becomes a homeowner in a predominantly white neighborhood, making a good financial investment, social penalties can follow: Will a neighbor call the police as he enters his own home? Will he have to alert the police that his Black sons belong in the neighborhood and shouldn’t be treated as suspicious? Whatever they choose, Black people risk being penalized by white preferences.

“There are no other Black people that live on my street,” John said. But he also acknowledged that the appreciation of the house has been phenomenal. “In terms of long-term value, I would absolutely choose this neighborhood again,” he said. But his vision of raising his sons in “the village of Black community life” looks very different now.

Enter tax policy to add insult to injury. The typical white family has eight times the wealth of the typical Black family, a racial wealth gap that’s fueled by tax subsidies for homeownership. Between 1940 and 1950 a majority of white Americans became homeowners by riding a wave of anti-Black policies — public and private — that prevented Black families from buying in certain neighborhoods and from taking advantage of F.H.A.-insured loans. By the end of the 1950s, 98 percent of homes built with F.H.A. support after World War II were occupied by white Americans. Black taxpayer dollars were supporting a federal government that was denying them equal treatment.

At the same time that America was solidifying its status as a nation of white homeowners, the post-World War II defense industry was mobilizing and in need of workers. To enable those workers to sell their homes with tax-free gains and move to where the jobs were, the real estate lobby went to work. By 1951, a new tax provision allowed homeowners to avoid paying taxes on gains when they sold their homes, if they purchased a new home of equal or higher value.

Today, if you sell your home at a gain, you can receive up to \$500,000 of gain tax-free. If, however, you sell your home at a loss, you get no tax break. (Contrast that with the way the tax law allows losses to be deductible when you sell stock.) John’s \$144,000 loss did him no good in terms of taxes. However, if he and his wife sell their Candler Park home, they’ll receive a significant tax-free gain.

So even though it is now illegal to discriminate against Black home buyers, tax subsidies that reward homeowners who sell their homes at a gain and punish those who sell their homes at a loss still disproportionately benefit white homeowners and their preferences — helping far too few Black homeowners along the way. White homeowners win while Black homeowners — particularly those who want Black neighbors — lose.

This is just one of many ways that the U.S. tax code perpetuates the racial wealth gap. There are dozens more examples that touch areas of life like marriage and paying for college. But the outcome is always the same: Tax policies tend to disadvantage Black Americans while subsidizing their white peers.

Black Americans are paying taxes into a system that benefits white homeowners. That is all the more true when you remember that most Black Americans are renters and can't take advantage of any subsidies for homeownership. Only 44.1 percent of Black families, compared with 74.5 percent of white families, own homes.

The federal government should stop subsidizing a racist housing valuation system that's made so by the preferences of white homeowners. It should repeal all federal tax subsidies for homeownership. Household rent is not deductible because it is considered a personal living expense. Why shouldn't homeownership be treated the same way?

Joe Biden's presidency could bring us one step closer to rooting systemic racism out of our tax laws. His first executive order created a data working group — which includes the Department of the Treasury, which is responsible for administering tax laws — designed to disaggregate data by demographic variables like race and ethnicity. Collecting tax data by race is a first and necessary step in making our tax laws more equitable.

If white supremacy is to be rooted out everywhere, it must be rooted out of our tax system. Black taxpayers should not be required to finance our own subordination.

UPCEA Keynote Address - University Professionals and Continuing Education Association

March 27, 2024

Maria K. Flynn, CEO, Jobs for the Future

Good morning!

Thank you, Roberto for that kind introduction.

And, thank you all for inviting me to join you in this important work.

I'm very excited to be here with you in my adopted hometown of Boston, which, as you know, happens to be one of the best places in the world to consider the past, present, and future of postsecondary education.

The organization I lead is called Jobs for the Future, or JFF, and although "jobs" is in our name, education has always been at the core of our mission: to prepare learners and workers for quality jobs, and opportunities for a better life.

When we were founded back in 1983, we were helping leaders in states and communities prepare their workforce for huge shifts in the labor market. For example, we worked with Governor Bill Clinton in Arkansas who was dealing with major declines in manufacturing and looking for new labor market solutions.

Today is no different, as governors and other leaders examine how artificial intelligence and other new forces and innovations will impact their leading industries.

We all know that labor market shifts are inevitable. And as a result, so is the need for lifelong learning as workers upskill and reskill for new opportunities.

Your work is more critical than ever. Your work is more critical than ever to your institutions, especially given all the headwinds that are hitting higher education these days. Your work is more critical than ever to employers, who need more skilled workers to fill jobs in emerging fields; And your work is more critical than ever to adult learners who need to keep pace with the changes happening around them.

I was exposed to the importance of lifelong learning at an early age.

When I was growing up – I saw my father pursue his associates, bachelors and masters degrees - all at night – and all while raising four kids and working full time.

This was over 40 years ago – way before on-line education was an option. He had to find programs that met his schedule and his budget, and that would set him up for career progression.

Fast forward to today and that's still what your consumers look for (CLICK)....accessibility, affordability and positive career outcomes.

Your institutions know they need to provide offerings that meet those objectives.

I believe that as UPCEA members you are - by your very nature - focused on workforce preparation.

But I'll be honest:

you've got your work cut out for you.

There are two big challenges in your way.

The first big challenge... learners. Learners themselves and how they want to access learning. They are gravitating to new providers – providers that can be your competitors at times.

Big names with big reach, like Google and LinkedIn, have entered the game with low-cost certificate programs that use the latest technology to offer flexible, personalized tools for every learner's journey. They can be more accessible, and more affordable than traditional models.

These are just a few of the examples we're seeing of a growing number of providers in the professional development space.

And there are now more than one million unique credentials in the marketplace for learners to choose from—from digital badges in phlebotomy to IT credentials offered by coding bootcamps.

That amount of choice can be great for learners. But, the maze of credentials can be confusing. And, I think it's a challenge for institutions, because it makes it hard for you to know where to place your bets in terms of program development.

The new entrants are hurting you in another way, by changing employers' preferences.

That's the second big challenge... employers.

UPCEA's recent study with Collegis found that in 2022, nearly half the employers surveyed had partnerships with four-year institutions; a year later, the number-one organization they partnered with was LinkedIn Learning.

I see that as a challenge since I deeply believe partnerships with employers are key to your long-term success.

Employers can help you scale up your enrollment and revenue numbers. In return, you can help them upskill and reskill their workforce.

The trouble is, many employers haven't even been asked to partner. Last year's report from Collegis and UPCEA revealed that 45% of employers have never been approached by a college or university interested in partnering to design and deliver a non-degree program.

That's a miss because university brands like yours would be very attractive to them since you are known quantities in the market.

But an even bigger problem, I believe, is that too many adult learning offerings from colleges and universities are not aligned with labor market demand – what skills employers need today as well as the skill needs that are on the horizon.

As someone who's been working in this field for over 30 years, I know that is the hardest nut to crack.

Because our education systems aren't closely aligned with market demand, we run the risk of not having enough skilled workers to fill the quality jobs that are coming.

And as demand and resulting skill needs continue to change at an accelerated pace, your ability to be agile and keep up with that fast rate of change is critical.

What kind of jobs are out there? Of course, the details vary from region to region.

But, consider recently enacted federal programs. There are trillions of dollars of federal spending that are becoming available— dollars authorized in three pieces of legislation: the Bipartisan Infrastructure Law, the Inflation Reduction Act, and the Chips and Science Act.

All three are creating historic demand for skilled workers in many industries, from semiconductors to construction to robotics and clean energy.

Millions of workers will be needed and there's already a dearth of skilled workers across these industries.

Take green jobs, for example. The green economy is projected to create 9 million new US jobs over the next decade. Demand for green skills is quickly exceeding the pool of workers ready to step in to fill those roles.

Why aren't employers training workers to fill these roles? Well, we asked them.

In a survey we just completed, over 80% of employers say they need more resources and government support to meet demand.

There is a big opportunity for you to partner with employers to fill this gap.

Meanwhile, low unemployment- which is still hovering below 4% nationally - isn't helping this dynamic, it is making it even more challenging for employers to find the skilled workers they need.

All of which begs the question:

Where will these millions of learners and workers come from?

We've got a big idea at JFF.

By our calculations, there are 92 million people in our country who are currently shut out of quality jobs. These are people who don't have four-year degrees, people of color, and other groups who face systemic barriers to advancement.

Being shut out of these jobs holds workers and their families back – and exacerbates systemic inequities such as the ones we see in data on wealth distribution here in the US.

Here's just one bit of evidence – a truly staggering data point from right here in Boston.

Several years ago, The Boston Globe reported on Boston's racial wealth gap, and found that the median net wealth of white households in greater Boston was about \$250,000, while for Black households, it was \$8.

The Globe got many letters and calls saying that must have been a mistake, so they printed a second story to confirm that it was correct. "That was no typo: The median net worth of Black Bostonians really is \$8."

It's so notorious that another larger sample study is now underway to update these findings. One thing's for sure: Racial disparities persist. Nationwide, Black individuals earn 1/3 less than white individuals over the course of their lifetimes.

Add in others who are shut out of quality jobs -- including other people of color, as well as most women and individuals impacted by the justice system – and you've got a pool of more than 90 million eligible workers.

At JFF, we believe that millions of these workers who face systemic barriers to advancement can secure quality jobs in the next 10 years.

That's our North Star: In 10 years, 75 million people facing systemic barriers to advancement will work in quality jobs.

That would be up from 38 million today – basically doubling the number.

We believe it's possible. And preparing this workforce represents a significant opportunity for you.

So: How can you help drive towards this north star?

By being more learner centered, and by being more employer- and demand-driven.

Let me give you some specifics. I want to share four imperatives with you – steps we think must be taken in order to seize this opportunity. I'll give you a few examples for each.

The first imperative is Redesigning Systems.

I'll start with a great example of systems redesign: Google's Career Certificates. They blend what learners need, like affordability, with what employers want, and what educational institutions can offer. The program partners with 3,000 educational institutions—including many of yours—to offer these Career Certificates. And, Google partners with more than 150 major employers to help connect certificate completors to jobs.

Certificates are available in six core tech fields, from cybersecurity to user experience design. Across these fields there are about two and a half million open jobs with a median salary of more than \$76,000 a year.

Google recently added three advanced certificates in Advanced Data Analytics, Business Intelligence, and IT Automation with Python. That's a great example of being demand driven!

Over 250,000 learners have graduated from the certificate program.

75% of them report a positive outcome like a new job, promotion, or raise, and 55% of these learners identify as workers of color.

The Google work shouldn't be viewed as competition to your programs – rather it is an opportunity for partnership.

One great example of a university partnership comes from Northeastern University, which is just a few minutes from here: since 2018, learners who complete Google's IT Support Professional Certificate have been able to receive up to 12 credits toward a Bachelor of Science in Information Technology – saving them close to \$6,000 as they complete their degrees.

Here's another local example: The UMass Flex program. It's a program my father would have loved, ideal for students who are working full-time, or caregiving, or have a learning style that benefits from a different pace.

UMass recognized the virtues of online learning a long time ago—they've been working in this area for decades.

And, through the Flex program, they're giving students access to a mix of remote and in-person courses, letting them earn a degree or credential at a pace and price point that meets their needs. You'll get to hear a lot more about it tomorrow from Chancellor Reyes[Ray]+[Is].

Purdue Global is another great example, with courses starting every month so workers don't have to wait until the traditional start of a semester to begin earning the certificate that they need right now. That's learner centered.

Switching gears a bit - here's one more example of a systems redesign that we're excited about at JFF: LERs, or learning and employment records.

LERs are digital wallets of verifiable credentials—so just as you might keep your concert tickets or your health insurance card on your phone, you can also have a verified record of your military experience, your certificates, and your employment with you at all times.

Western Governors University is doing some exciting work in this space, using LER technology to create an “Achievement Wallet” that lets learners assemble all their skills and experiences in one place, and use that record to identify potential job matches from employers. I know Kacey and the team are here today.

The University of Texas system is partnering with the edtech leader Territorium – who are also here! - to offer its students LERs that include skill assessments and job matching as well.

The value isn't only workforce-focused. I'm sure you're all very familiar with the challenges that come up when learners try to transfer between institutions. Or even the bureaucratic nightmare it can be to get a copy of your college transcript. LERs can streamline those processes as well.

It's promising technology with a lot of potential to showcase the value of lifelong learning, and I'd urge you to look into how your institutions can make use of it.

Here's some final advice on systems redesign. I encourage you to be sure to look both at the systems you have control over within your institution as well as systems outside of your institutions that you interact with and have the ability to affect.

This is where a strong policy and partnership agenda can go a long way.

I encourage you to advocate for federal and state policies that can drive innovation, flexibility and equitable outcomes.

And, you don't need to do this alone. Partnership is key.

For example, JFF and UPCEA are both part of Today's Student's Coalition, a group of organization who have joined forces to push for policy changes that will better serve today's students.

The second imperative is Investing In Human Potential.

I'd like a little audience participation here, if you don't mind: How many of you have a four-year degree? Raise your hands.

That's a lot of people in this room, which isn't surprising given we're at a higher ed conference! But it is important to remember that we're the minority. Only 38% of adults in the US have a 4-year degree.

Meanwhile, many employers use degrees as a way to screen out candidates. JFF is part of a campaign organized by our friends at Opportunity@Work called Tear the Paper Ceiling. The paper ceiling is a metaphor for the college degree requirement. And, the campaign is an effort to help employers look at the skills rather than the degrees that a job candidate has or doesn't have.

This is part of a movement that is gaining real traction. And it creates opportunity for you as a skills-based division of a degree-granting institution. It's a movement that is sweeping through the public sector. In June of 2020, the Trump administration issued an Executive Order encouraging federal agencies to remove degree requirements from their job listings in —and the Biden administration has continued it, offering guidance for creating skills-based hiring assessments. Likely one of the few executive orders that have extended into the current administration!

And in the last 2 years, 21 states have removed the college degree requirement for their state jobs. Maryland was the first to make the change. Former Governor Larry Hogan told me that in the first year, they saw a 41% increase in hires of state workers without college degrees. 43,000 workers in total. This is a great example of change happening at scale. And, it's happening on a bipartisan basis with Governors of both parties.

It's not just the public sector, either. The Business Roundtable, an association of more than 200 CEOs of America's leading companies, has a Multiple Pathways Initiative, a multi-year effort to bridge the gap between talent and opportunity.

So, what can you do to take advantage of this shift to put skills first?

Employers are going to be looking for ways to easily determine who has the skills they need. You could help with systems like Learning and Employment Records.

You could also make it easy for your students to know what skills they are attaining through various courses. Some institutions are using a Lightcast tool called Skillabi to call out key skills embedded in coursework. Lightcast is a real time labor market information company headquartered not too far from here.

I also encourage you to embrace a credit-for-prior-learning or competency-based education approach that considers a learner's entire journey, not just starting at the moment they enter your institution.

Capella University, for example, is built around a competency-based approach focused on practical knowledge and relevant workplace skills that enables learners to move faster – or slower – through their curriculum as needed.

When we focus on who people are and the skills they bring to the table, we break down the systemic barriers that have kept deserving candidates away from postsecondary education, and out of quality jobs.

Which brings me to the third imperative -- Activating Equity.

We know there are significant achievement, employment, and wealth gaps in this country. Closing these gaps may become a lot harder after last year's Supreme Court decision on affirmative action that has sent shock waves through not just higher ed but in the business community as well.

But it doesn't change what we already know about access to quality learning, quality jobs, and a better quality of life for most people in this country.

Which is that there's still a lot of inequity in the labor market, and in educational attainment.

And we know that just doing more of the same isn't going to fix the problem.

It's going to take intentional action. You have to design programs to be more equitable. It doesn't happen by accident.

We see that many well-intended solutions are not accessible to or effective for everyone.

Here's an example of what happens when solutions designed to prepare workers for in-demand jobs don't have equitable outcomes for all populations.

Technology jobs – in data science, engineering, cybersecurity, and software development – are expected to grow 14% in the next decade.

However, Black tech talent in those roles is expected to grow only 8 percent over the same period. We wanted to know how to increase the flow of Black learners into these in-demand jobs. So, JFF surveyed Black learners and workers and found that they would be more interested in pursuing tech jobs if they had:
a better understanding of the pathways to those jobs,
were able to tap professional networks,
and had access to more academic and career services.

There's a program in Boston that does just that: a non-profit called Duet. In partnership with Southern New Hampshire University, they offer in-person support for students as they move through school and into the workforce, from enrollment guidance to academic support to career services for two years post graduation.

I love how they describe their program as simple and affordable - "college on your terms." That's learner-centered!

What might you do to provide this kind of support, if you aren't already? For example, are there community partners who can provide in-person support for your on-line offerings?

Here's another exciting opportunity -- a way to activate equity and leverage federal dollars. Last year, the federal government restored Pell Grant eligibility to learners who are currently incarcerated, which means more than 700,000 people who are currently serving sentences are now eligible for Pell funding to start or continue their education.

I know later this afternoon you'll have a chance to hear from some of your colleagues at Washington University, California State University, and Northwestern about how they are collaborating on prison education programs.

So, I'll just share one observation. It comes from Shaun Libby, who is a JFF employee and graduate student at the University of Michigan, and who is currently serving a sentence at the Maine State Prison.

Shaun writes:

"If we take the "corrections" part of the term "department of corrections" seriously, then it only makes sense for them to provide educational opportunities for people in their care."

How might you make this work? I think it's an opportunity to really think creatively.

Speaking of Pell grants – there's one other expansion of Pell that JFF is advocating for -- the ability to use Pell grant dollars for short-term credentials. This legislative change seems to be getting bipartisan traction on Capitol Hill, and while I know UCEPA has flagged some concerns with how this change would be funded – I believe it could open up new opportunities for you.

Okay, I've got one more set of recommendations for responding to labor market demand.

The last imperative -- Seizing the Next Frontier.

Technology is creating millions of quality jobs. And AI – artificial intelligence – is the technology with the most potential.

Sundar Pichai, the CEO of Alphabet – the parent company of Google - says that "AI is something more profound than electricity or fire."

AI will change everything in our collective wheelhouse: the way people learn, the jobs they'll get, the work they'll do, and the way they'll acquire new skills to stay relevant.

The impact of AI will be deep, it will come fast – and this is just the beginning. Learners and workers already understand this. A few months ago, we surveyed more than 2,200 of them. Not surprisingly, more than half believe they'll need to upgrade their skills as a result of AI in the next five years.

But get this: 88 percent don't trust their employers to help them understand AI. Your institutions have an opportunity to serve as that trusted partner and help learners get a functioning knowledge of the technology -- and to partner with employers in this effort. We've seen new courses that teach learners how to use generative AI to help draft content, design images, generate ideas, and manipulate data.

I know many of you are looking at instructional AI as well – tools like automated assistants that support teachers and extend the help they provide to students.

One of your colleagues described a successful AI model as a personalized lifelong learning companion, and that's exactly the approach companies like Coursera are taking. Coursera's "Coach" program is a virtual assistant that can summarize lectures, highlight key concepts, and even translate the resources into multiple languages for greater access.

There's even the opportunity to train the AI workforce itself.

One-third of workers in the AI field today do not have four-year degrees. And most AI jobs will be in middle-skill and entry-level positions.

Our partners at Georgetown University recently looked at the opportunities for workers without 4-year degrees in the AI field.

Look at how many workers already in the AI workforce have less than a bachelor's degree:

- Over 80 percent of electrical technicians. These are the workers who test and repair the equipment that runs AI systems.
- A third of the information security analysts who look for security breaches
- And almost half of the network administrators and architects who build and maintain the computer networks that power AI systems, don't have a four-year degree.

It's true of other roles as well. What a great manifestation of skills-based hiring – and a great opportunity for continuing education!

The good news is that there's still a lot of runway left. We're in the early minutes of AI's takeoff.

But if you don't move to fill the demand for training for these roles in AI, non-traditional providers will with built-for-purpose solutions.

Certainly, there are reasons to be concerned about AI. There's the threat to other jobs; the biases AI can have.

But on balance, we are optimistic about AI.

I recently collaborated with LinkedIn's Aneesh Raman on a New York Times piece about AI and the workforce.

Aneesh and I feel strongly that all signs point to the increasing value of uniquely human skills like collaboration, empathy, and critical thinking. Assuming we're right – what does that mean for your program content?

How can you best combine technical training and a focus on human skills?

I want to quickly highlight one more technology that's being used to create accessible training programs and reach a wider range of learners. A few years ago, Morehouse College partnered with a virtual reality education company to launch the first "Metaversity." Now several courses at Morehouse are offered exclusively in virtual reality.

Results so far are promising. VR classes have 10% higher attendance rates, and student achievement has increased 12%. Students master concepts more quickly, and the immersive experience eliminates distractions like phones.

Using AI and VR for education and training isn't just making the education more interesting—it's training the next generation of workers how to use technology that's going to become increasingly important in the global workforce.

These four imperatives — redesigning systems, investing in human potential, activating equity, and seizing the next frontier—may sound like a lot.

But it boils down to just two essential recommendations.

Your offerings need to be learner-centered and demand-driven.

On the demand side, you need to be keeping pace with evolving labor market demand and employer signals.

At the same time, you need to be responding to those signals in ways that work for today's learners who, at the end of the day, are no different from my father in the 1970s. They are looking for ways to balance family, work, school and the chance for economic advancement.

It may sound simple, but in fact too many higher ed institutions have failed to be learner-centered and demand-driven. Instead, they've centered on tradition, or old narratives about why a four-year degree is the only measure of workforce readiness, or the bottom line.

I encourage you to take the unique strengths that your institutions bring to the lifelong learning field, and apply them to inviting more students in, connecting them with in-demand opportunities, providing the supports they need to build pathways that lead to quality jobs and a quality life.

Leaders like you are well positioned to do this.

In the landscape of higher ed, you are the most flexible when it comes to developing solutions for adult learners and you have the most innovative infrastructure to accommodate new methods.

In rapidly changing times, you can't wait for change to come to you.

You need to be anticipating what is coming down the pike and alter your path before it is too late.

And anticipating these changes — and acting on it — it is a critical piece of the cycle that we will all return to again and again as we build a future of work that works—for all adult learners.

The future of education is here in this room today, and it is agile and responsive. It is learner-centered and demand-driven.

Thank you for the work you do. I'm excited for your questions!

Learn, Earn, and Lead: Paid Pathways to Teaching Careers

The Colorado Mountain College teaching apprenticeship program breaks down barriers to careers in K-12 education

December 18, 2025

AT A GLANCE

Colorado Mountain College's Registered Teacher Apprenticeship shows

CONTRIBUTORS



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Director

<https://www.jff.org/blog/learn-earn-and-lead-paid-pathways-to-teaching-careers/>

Like many working students with families, Alaine Reiter has a lot on her plate. The second-year student at Colorado Mountain College works full-time as a full-time special education paraprofessional at an elementary school, has two children, and makes time for class work in the mornings and evenings.

“We still only have 24 hours in a day,” she jokes. “I keep asking for more, and they just won’t give it to me.”

But as a CMC student, Reiter is part of one of the nation’s first Registered Teacher Apprenticeship programs, which means her time spent teaching in the classroom is paid and counts toward her degree progress. Recruited into the program to help address regional teacher shortages, Reiter is on track to get her degree on an accelerated schedule and at a lower cost than a traditional bachelor’s degree program. When she completes her degree in May 2026, she’ll continue working in one of the state’s designated shortage areas, where teacher and special service provider vacancies have increased over the past year.

“Another route would have cost a lot more, taken a lot more time, and then I still would have had to take my education courses,” she says. “With this, I get to take my courses and apply it practically while I’m working. I couldn’t ask for better.”

The Registered Teacher Apprenticeship program puts CMC and Colorado at the forefront of a nationwide trend in education: opening new, earn-and-learn pathways to certification and employment. Aspiring teachers facing financial stressors can get their degree, certification, mentorship, and classroom experience without amassing more student loan debt. School districts are finding that apprenticeships can stem teacher shortages and draw a broader range of applicants to the field.

Since the state passed a 2023 bill establishing standards and implementation guides for apprenticeship, more than 80 students have enrolled in the program offered at CMC and sponsored by CareerWise Colorado, a nonprofit that facilitates apprenticeship connections between students and employers.

While the first cohort is still a few months away from completing their degrees, the early results from participants are in: the program is “a game-changer,” according to program director Liz Qualman.

Building a “new normal” for careers in education

The traditional path to a K-12 teaching license involves a bachelor’s degree, followed by student teaching on the path to certification. For full-time students, that can mean four years of study—and tuition payments—before they have the chance to begin earning a living. For part-time students who are balancing work and family, like Reiter, it can take even longer.

It’s an expensive model that has put careers in education out of reach for many learners, and Colorado’s numbers reflect that. The state has an ongoing teacher shortage, with more than 600 positions left unfilled in the 2023-2024 school year.

Apprenticeship programs can meet this moment in K-12 education, says Eric Dunker, chief growth officer of the National Center for Apprenticeship Degrees, because they recognize a simple truth: “There are millions of Americans that need to work first.”

Dunker and NCAD believe that apprenticeship degree programs should be a standard component of education pathways, and are working nationally to help scale programs like the one at CMC. “For some Americans, traditional higher education is serving its purpose,” he says. “But for the millions of Americans who have not been well served by the traditional higher education market, we believe the apprenticeship degree....should be the new normal for the working adult in this country.”

An apprenticeship degree doesn’t just help minimize student loan debt, Dunker says—although most students in the CMC program fully fund their studies through a combination of grants and scholarships. By combining work and training, the apprenticeship can free up more of the scarce hours each day that students balancing work, education, and family need. With up to half of the coursework hours classified as “job-embedded”—meaning half the time spent working in schools counts toward the degree requirements—students don’t have to fit in a full load of academics on top of a full-time job.

The success and growth of programs like CMC’s is going to push higher education toward a “tipping point,” Dunker says. By 2035, NCAD hopes to have 30 million active Registered Apprenticeship degrees across a range of sectors in place across the country.

Finding teachers that reflect their students

The CMC vision of broadening access and affordability doesn’t just shift opportunities for the students in the teaching apprenticeship; it’s already shifting perspectives for Colorado’s K-12 students.

For years, the state’s pool of licensed teachers has not always reflected the demographics of the communities they serve. An eight-year assessment by the National Council on Teacher Quality found that while 45% of Colorado’s students identified as people of color, only 14% of teachers did.

It’s a systemic imbalance, one that drew Sergio de la Rosa to teaching in the first place. He’s getting a certification in culturally and linguistically diverse elementary education, and hopes that the apprenticeship program will bring other teachers like him into the field.

“I hope more people are able to find their way into a program like this,” he says. “People who are in a situation like mine, where you are trying to help the community, where you see the benefit in trying to develop the young minds around you.”

With the Registered Teaching Apprenticeships in place, however, CMC’s Qualman sees the opportunity to “diversify the teaching workforce in real time.” In the first cohort, 41% of apprentices identified as Latinx, compared to 10% of teachers statewide, and a survey of data from 17 of the state’s teacher training programs showed CMC with the highest percentage of program completers who identified as people of color.

“We are a very diverse school community — we have over 20 languages spoken,” says Jen Kral, director of alternative licensure for Colorado’s Morgan County School District, one of the first 11 partnering with the apprenticeship program. “So it’s really important for us to have educators that match our student populations.”

The mentorship component is also key to building that workforce. CMC was an early adopter of the state’s Mentor Teacher Endorsement program, which gives experienced educators formal training and stipends to serve as mentors for apprentices and other students in CMC’s education programs. The one-to-one support is critical for “getting apprentices to the finish line,” says Qualman, especially for student populations who’ve faced barriers to completing the traditional model.

CMC apprentice cohort by the numbers:

- 39% identify as women of color and 7% as men of color, compared to 11% and 4% statewide
- 11% are English language learners
- 37% have some college credits but did not earn a degree

A look ahead

Building on the momentum of the past few years, Colorado Mountain College and its partners are focused on growing a teaching workforce that recognizes and meets community needs. Priorities include expanding opportunities for women and women of color in apprenticeship pathways, which traditionally draw more male participants, and recruiting more male elementary-education teachers through the earn-and-learn model, which allows students who identify as the head of household — like de la Rosa — to continue providing family support while they obtain certification.

The program’s goals also align with NCAD’s vision of apprenticeship growth across the country; CMC hopes to raise its apprenticeship completion rates from 75% to 80%, beating national averages that hover in the 30-40% range.

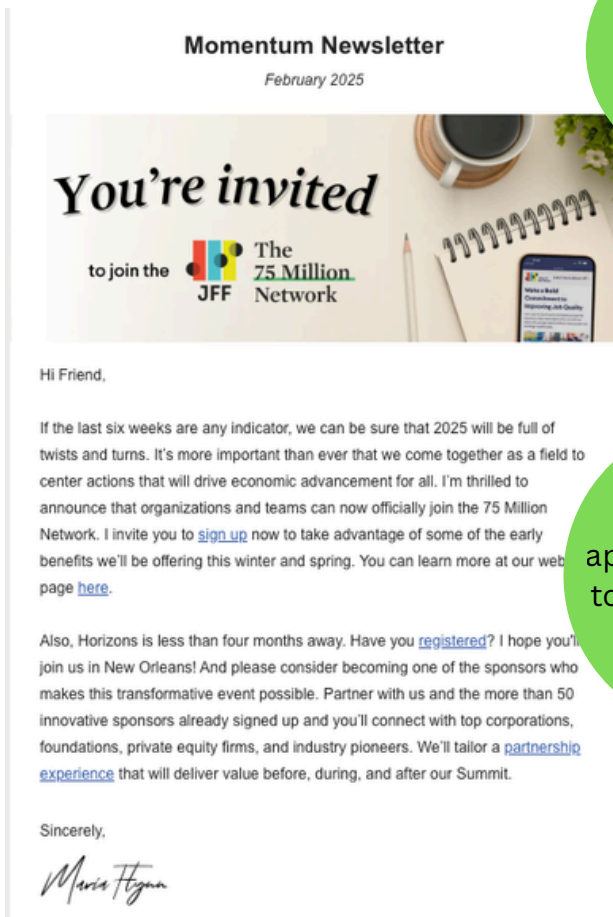
Within the college itself, other academic departments are looking to the teaching program as a model for other opportunities in apprenticeship and the earn-and-learn model. It’s a goal that matches many of the apprentices’ hopes that more students like them will embrace this program and its possibilities.

“I absolutely believe that this is the future for postsecondary education,” says Reiter. “I hope this program continues for a long time, because it’s made so many of our futures wonderful.”

Enterprise Email Redesign

Old version:

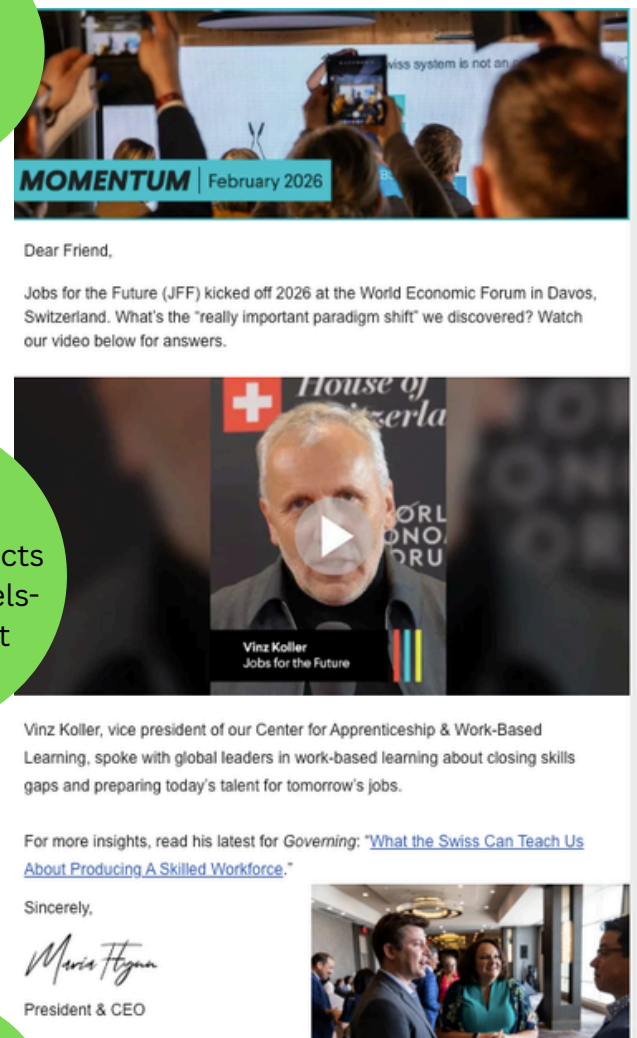
- Catch-all for every practice area
- Clipped by most mail clients at X KB
- “Wall of text” introduction



Open rates boosted 116% after redesign

New version:

- Targeted deep dive on biggest news
- X KB - never clipped
- Video introduction



Video-first approach connects to social channels- no wall of text

In this edition

- **Big, Bold Ideas:** Remote work in prison; phase three of the Quality Green Jobs Regional Challenge; standards for leadership opportunities for young adults
- **Moving Policy Forward:** Voters concerns; the role apprenticeship could play in unfilled jobs
- **Impact at Scale:** Key needs for young people navigating their careers; JFF recognition
- **Partnership for Success:** Equipping West Virginians with in-demand skills; apply for \$300,000 in grants



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- What does modern medicine have to teach today's workforce policymakers? The value of preventive care. Learn more in Maria Flynn's column: ["Prescription For A Resilient Workforce In The Age Of AI."](#)
- The inaugural cohort of JFF's [Fair Chance to Advance State Action Networks](#) launched in January in Kansas, Maine, North Carolina, and Oregon. The new initiative helps states expand high-quality postsecondary education and workforce pathways for people with histories of incarceration.
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