



LUMINA ISSUE PAPER

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# **COMMUNITY COLLEGE CAREER EDUCATION: SCALING A NEW APPROACH**

by Tamar Jacoby

July 2019



## Foreword

Our postsecondary education policies, institutions, and practices were developed for an economy that is many decades behind us. While we often talk about the “future of work,” we need to recognize that our economy has already been transformed, and our problem is that we haven’t put enough attention toward developing new approaches to learning. Too much of what we offer students once they leave high school is truly “the past of education and training.”

One dimension of this problem is simply numbers. In an era of increasing skill demands for even entry-level work, we have failed to increase the number of seats at the postsecondary table. Highly selective colleges and universities educate the same number of students they did 40 years ago. State universities and community colleges have shouldered the burden of expanding to keep up with population growth but with budgets that are equivalent of one hand tied behind their backs.

Of course, expanding access to outdated learning opportunities is no solution. The good news is that, in addition to expanding to meet the growing demand for postsecondary education, community colleges are also innovating new models that are more affordable, flexible, and occupationally focused. These programs hold the promise of creating opportunities for students of any age seeking high-quality, in-demand credentials. They also are the answer to employers looking for workers with the skills needed for today’s economy.

To better understand this emerging new model of career preparation, Lumina Foundation convened a group of community college leaders and education reformers on the front lines of this changing landscape. Several questions framed this forward-looking discussion, including: How are community colleges putting workforce education at the center of their missions? How are educators building stronger partnerships with employers? What’s slowing the adoption of shorter, stackable credentials? What can be done to encourage all of this and other developments to meet the needs of the future?

These discussions informed this issue paper authored by Tamar Jacoby.

One important takeaway from the discussion: While community colleges are only one education provider among many, they will be an increasingly important provider, working in an increasingly complex, demand-driven credentialing marketplace. Two-year colleges will be called on more and more to pilot and implement new types of credential programs – often with limited resources and on tight timelines. Many programs will likely be short-term, learn-as-needed programs. External groups will be looking at new ways to measure outcomes, including student pass rates on industry certification exams, employers’ pre-hiring assessments, and on-the-job success.

In this increasingly complex credentialing marketplace, community colleges must make their many different types of credentials understandable, and employers must signal clearly what credentials they’re seeking – not only degrees but certificates, certifications, licenses, badges, and noncredit credentials that transition to credit pathways.

In this new era of learning and work, students will need to understand that degrees and other credentials of value are just the starting point. People will need to be learner/workers throughout their professional lives – learning through the workplace, through postsecondary programs, self-study, third-party provider programs, and other avenues. The institutions that help prepare learner/workers will need to constantly improve their teaching practices and their assessment of competencies and skills. These will be the opportunities and challenges facing community colleges, now and into the future.

Lumina looks forward to partnering with the many stakeholders – especially community colleges in the vanguard of this wave of change – to help the nation prepare for a stronger work-and-learn ecosystem.

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## Executive Summary

A new landscape is emerging at community colleges across the country – a new approach that puts preparing students for the workforce at the center of the college’s mission and culture.

Occupational education has always been part of the mission at community colleges. What’s changing today: New technology is putting a new premium on occupational skills, and educators focused on preparing students for the workplace have a new set of tools at their disposal.

Encouraged by this new trend and eager to advance it, Lumina Foundation convened a group of innovative community college leaders to talk about shared challenges and strategize for the future.

Why aren’t more community colleges putting workforce education at the center of their missions? Why aren’t more educators building stronger partnerships with employers? What’s slowing the adoption of shorter, stackable credentials? And what can be done to encourage all of this?

The educators around the table had questions, but they also had answers. This paper is a report on their conversation.

The educators feel they are on the edge of a new, exciting universe – a new way of serving students and delivering skills to fuel economic growth. They want to bring others – other educators and more employers – with them into this new world, and they want help from policymakers.

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## Introduction

A new landscape is emerging at community colleges across the country – a new approach that puts preparing students for the workforce at the center of the college’s mission and culture.

Occupational education has always been part of the mission at community colleges – at the core of that mission at some institutions, more peripheral at others. What’s changing today: New technology is putting a new premium on occupational skills, and educators focused on preparing students for the workplace have a new set of tools at their disposal.

The nation’s 1,100 community colleges are highly diverse and decentralized. They come in all shapes and sizes, and they answer to no national authority, sometimes not even state authorities.<sup>1</sup> So the new approach looks different from campus to campus.

Still, the trend is clear – not just a new general direction, but a shared set of innovative strategies. The key elements of the new approach: close working partnerships with employers; experiential and work-based learning; shorter, stackable credentials; a more flexible approach to college credit, and more options for mid-career adults.

Encouraged by the new trend and eager to advance it, Lumina Foundation convened a group of innovative community college leaders to talk about shared challenges and strategize for the future. The half-day session took place in Indianapolis in February 2019.

The question the participants found most compelling: How to scale the new approach?

Why aren’t more community colleges putting workforce education at the center of their missions? Why aren’t more educators building stronger partnerships with employers? What’s slowing the adoption of shorter, stackable credentials? What are the obstacles to awarding credit for prior learning, whether on the job or in the noncredit, continuing education division of colleges? And what can be done to encourage all of this?

The educators around the table had questions, but they also had answers – several hours’ worth of ideas about the obstacles to scaling and how to address them.

This paper is a report on that conversation. It’s a story about bottlenecks, but also about potential solutions – and it’s a call to action.

The educators around the table feel they are on the edge of a new, exciting universe – a new way of serving students and delivering skills to fuel economic growth. The colleges want to bring others – other educators and more employers – with them into this new world, and they want help, including from policymakers.

The brief that follows consists of two parts: first, a description of the new landscape emerging on community college campuses, and second, an inventory of the recommendations offered by the group in Indianapolis.

**Career education has always been part of the mission at community colleges. What’s changing today: New technology is putting a premium on occupational skills.**

## Part One: The New Landscape

Even before they were labeled community colleges, back in the first decades of the 20th century, what were then known as junior colleges worked to balance multiple missions: preparing students to attend four-year institutions, preparing them to go directly to work, and making up for deficiencies in the learning they had acquired in high school.<sup>2</sup>

Today, these three legs of the stool have been renamed – transfer programs, terminal occupational options, and remedial or developmental education. But today as in the past, they compete for resources and respect at many community colleges.

In the years after World War II, a new role was added to the mix: community education – generally a combination of recreational courses, noncredit workforce preparation and customized job training offered on contract to employers.<sup>3</sup> Later, near the end of the century, as many embraced the goal of four-year college for all students, the transfer function moved to the forefront on many campuses.

But this push and pull – the contest for which mission should take precedence – has taken on a new urgency in recent years, spurred by economic change and competition from providers outside traditional higher education.

Yesterday's blue-collar jobs are giving way to more highly skilled, technical positions. Workers in virtually all industries, including the service sector, need technical savvy to succeed on the job. And a high school diploma is rarely enough. There are fewer and fewer good jobs for workers with no education or training beyond high school.<sup>4</sup>

Bottom line: Economic change, likely to accelerate in years to come, is sharply increasing the demand for occupational education.

Meanwhile, a host of new competitors has emerged: massive open online courses (MOOCs), coding boot camps, last-mile post-college training and placement services, and other disruptive innovations. Many of these are online providers that seek to serve the same students as community colleges.

Community colleges have an important advantage: reach and scale. They educate more people each year than coding boot camps, apprenticeship programs, and government job training combined – more than 12 million students, compared to 17,000 at boot camps and 160,000 in government training programs.<sup>5</sup>

But colleges that fail to adapt to changing demand and new competition risk being left behind.

Many community colleges struggle to deliver on their traditional promise to students. Fewer than one-third of two-year students graduate within three years of enrolling.<sup>6</sup> More than 80 percent arrive at college with the intention of earning a bachelor's degree, but only 14 percent succeed within six years.<sup>7</sup>

Yet many colleges have been hesitant to experiment with new, more job-focused approaches. Innovation remains uneven – pockets of opportunity in a sea of institutions still devoted primarily to remedial education and preparing students to transfer to four-year colleges.

## Key Ingredients of the New Approach

The north star that guides today's innovation, a key differentiator from old-style vocational education, is labor market demand. The focus isn't just skills or skill attainment; it's employment outcomes – jobs and wages.

Many programs set the bar higher still: They aim to place graduates in high-demand, high-wage jobs in growing industries. The watchword is "alignment," and colleges use many tools to achieve this end, starting with sophisticated, real-time labor market information, often purchased at considerable expense on the private market.

But arguably the surest way for colleges to align their programs with a changing labor market is by collaborating with employers. Only employers know what skills are in demand at their companies. Few know better than employers how technology is transforming their industries or what skills will be needed in the workplace of tomorrow.

Collaboration is rarely easy. Educators and employers inhabit different worlds; they often speak different languages and operate at different speeds. Few on either side of the divide have experience bridging these gaps. But companies and colleges across the country are experimenting and demonstrating what can be done.<sup>8</sup>

Every collaboration is different. Employees may come to the table alone or in a group. Some firms are focused on new hires, others on incumbent workers. The jobs they seek to fill vary widely: blue-collar, white-collar, technician, service worker, on the front line of production or in supervisory roles – to name just a few possibilities.

Relationships also vary in intensity, from occasional exchanges of information to close, working partnerships – day-to-day collaboration. And every program relies on a different mix of innovative tactics, including shorter noncredit offerings, stackable credentials, and better options for mid-career adults. A few examples illustrate the range of possibilities.

Colleges that fail to adapt to changing demand and new competition risk being left behind.

**Building on the strengths of the noncredit division.** When global aerospace manufacturer Spirit AeroSystems opened a new facility in rural North Carolina in 2010, it sought to recruit several hundred workers in just a few months.<sup>9</sup>

State policy that matches educators and employers brokered a relationship between Spirit and nearby Lenoir Community College, a small school with no experience training aerospace workers. Company and college worked together to develop curriculum and hire instructors. Training took just 13 weeks, and most trainees were hired by the company. The key to the successful partnership, both parties recall, was collaborative trial and error, with the company in the lead.

Among the most distinctive features of the collaboration: It was housed in the noncredit continuing education division of the college. More flexible and accustomed to working with companies than colleagues in traditional academic departments, continuing education administrators were able to launch a program in a matter of months rather than the years it might have taken to get approval for a credit-bearing course.

Continuing education programs aren't right for every student. Learners typically receive no college credit for time spent in class, and they are ineligible for Pell Grants or other federal financial aid. But many learners, especially mid-career adults, find the benefits outweigh the costs. Most important, they can acquire the skills they need for a job without taking the general education courses – English, history, math, social sciences – required for an associate degree.

This is a boon for trainees in a hurry to get into the workplace and start earning. It's also beneficial for companies eager to fill open jobs and often more focused on workers' skills than their academic credentials.

It was the ideal answer for Lenoir Community College and Spirit AeroSystems. But Lenoir has since taken the innovation a step further, bridging the divide between credit and noncredit divisions.

In 2018, the college made it possible for students who wish to continue their education later in life to earn college credit for their noncredit training. This can be a hard gulf to bridge – not just technically but also politically, among the faculty. Still, Lenoir administrators were able to demonstrate enough overlap between credit and noncredit curricula to exempt noncredit trainees from nearly two-thirds of a semester on the way to an associate degree.

**Harnessing industry certifications.** Lord Fairfax Community College faced a different challenge: not just one company looking to fill a one-time labor need, but a regional workforce shortage affecting scores of construction firms in Virginia's rural Shenandoah Valley.<sup>10</sup>

The college responded with a new program to train heavy-equipment operators. As at Lenoir, training is offered on the noncredit side on the college, and it's tailored primarily for older students, many of them already working.

Unlike in North Carolina, the college's employer partner is a local trade association, and the goal is to build a talent pipeline for companies across the region. The program is open to anyone who applies, not just a select group chosen by the company or the college. Graduates looking for jobs have a broader array of options. And the arrangement is built to last, sustaining continued economic development in the region.

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Still another important difference at Lord Fairfax: The program is built around a nationally recognized industry credential – a National Center for Construction Education and Research (NCCER) heavy-equipment operator certification.

Of all the tools in the toolkit of the new workforce education emerging at community colleges, industry certifications are among the most important. Developed by employers and employer associations to signal the skills in demand in their industries, certifications are based on job profiles – a detailed list of the skills required to succeed in a given position. The industry group uses this profile to develop a competency-based assessment. Learning still generally takes place at a high school or community college, sometimes both. But success is measured by the industry assessment – usually administered by a third party – rather than by time spent in class or college credits earned.



The payoff: Students know they are developing skills in demand in the labor market, and employers know which job applicants have the skills to succeed in the workplace.

The curriculum developed by Lord Fairfax and its local trade association partner is designed to prepare students for an NCCER heavy-equipment operator assessment. An innovative state approach to noncredit funding helps cover the cost of earning the certification. Students who succeed are guaranteed interviews with local companies, and employers across the region are discovering the value of NCCER credentials.

The payoff to industry certifications: Students know they are developing skills in demand in the labor market, and employers know which job applicants have the skills to succeed in the workplace.

**The power of employer collectives.** Employers and educators looking for ways to collaborate often gravitate to a collective model in which several firms in a single industry come together to work with a community college. These employer groups vary widely in how active and engaged they are. The Federation for Advanced Manufacturing Education (FAME) shows what can be done by a collective with a strong vision and effective organization.<sup>11</sup>

Launched some 10 years ago at a Toyota plant in Kentucky, FAME now boasts more than 300 member companies across 11 states. Firms come together in regional chapters – generally 10 to 25 employers – and most have an active, working partnership with a local college.

Unlike some employers, which see their role as mainly advisory, FAME employers want to be in the driver's seat – an engaged and demanding customer. FAME chapters recruit their community college partners and insist on a list of conditions. Colleges must adopt the FAME curriculum, work with the federation to hire instructors out of industry, and replace classrooms with an open workshop configured like a factory floor. Participating employers recruit and choose students to be admitted to the program, then meet monthly at the college to oversee their progress.

Unlike many employers who find it easier to work with noncredit administrators, FAME has found a way to build close working relationships with community college credit divisions – so students earn college credit and graduate with associate degrees.

FAME employers also cover the cost of tuition. Students spend half their time in class and the other half on the job at a sponsoring company, applying what they have learned and earning wages that cover their college costs.

Still another feature of the FAME model, seen as increasingly important by many career educators: Only one-third of the curriculum is devoted to technical skills. A second third focuses on what FAME calls "professional behaviors" – employability skills such as communication and teamwork. The third component, more innovative still, teaches a higher order of nontechnical skills – problem solving and efficiency.

**Credentialing that opens the way to lifelong learning.** Among the most significant innovations in the new approach to career education is the concept of stackable credentials – shorter credentials, more appealing and attainable for students, and mechanisms to link them, opening a path to lifelong learning.

The trend toward shorter, job-focused credentials isn't new. The first step in this direction, decades ago, was the advent of credit-bearing academic certificates, commonly awarded after a year of study or less and today almost as popular as associate degrees. Industry certifications also appeared years ago, driven by employers seeking a better way to identify workers with the skills to succeed on the job.

But recent years have brought a burst of new thinking and new credentialing: digital badges, micro-credentials, and a profusion of noncredit certificates, often issued by disruptive education innovators, including online platforms and coding boot camps.

Many students like shorter credentials. Goals appear more attainable. Programs focus more narrowly on essential skills – just what you need to succeed on the job. And the best new awards are more transparent to employers: They signal that credential holders have skills in demand in the labor market.

The challenge and opportunity for educators: Can this welter of credentials be connected and coordinated in a way that works for students and employers? The answer increasingly is yes, but it doesn't happen automatically, and some of the most significant work being done at community colleges involves translating the new credentials and linking them to conventional academic degrees.

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Examples abound. When Lenoir Community College set out to bridge the gulf between credit and noncredit divisions, its first step was tying noncredit training to an industry certification, then mapping that credential onto curriculum offered on the credit side of the college.<sup>12</sup> Other institutions focus on breaking up traditional degree programs into smaller units that students can complete at their own pace, starting perhaps with a certificate they can use to get a job or a better job, but build on later in life to earn an associate degree.<sup>13</sup>

Still other institutions and state education authorities work to guarantee that students can move seamlessly from one credential to another – stacking badges to earn certificates, stacking certificates to earn associate degrees, and building on associate degrees to earn credentials from four-year institutions.<sup>14</sup> This work is not easy. Translating and linking between programs is fraught with technical and political obstacles. But it's an all-important piece of the new approach to career education – a web of links that makes the new approach more than the sum of even its most innovative parts.

The payoff for students: When the system works, they can chart their own paths through postsecondary education – interspersing school with stints at work, never having to repeat schoolwork already mastered, and continuing to grow through their careers, adapting to changes in the labor market.

## Part Two: Scaling The New Approach

How widespread is the new approach to community college workforce education? No one knows – there are no reliable data on many features of the new landscape.

But the community college educators gathered in Indianapolis, all working on the front lines of innovation, saw themselves as a small vanguard – people with a secret hidden from the wider world. And as the conversation unfolded, the educators came back again and again to the need to scale the new approach.

The group identified three major issues to be addressed in years ahead.

First, a wide circle of stakeholders – students, parents, and potential employer partners, among others – know little or nothing about the new job-focused education or shorter, stackable credentialing.

Second, community colleges lack institutional capacity to implement the new approach, and proponents often face misunderstanding or resistance from entrenched interests in other parts of the college.

Third, no college is an island, and policy matters – incentives, performance metrics, funding, and a host of other supports lawmakers can and should provide to advance job-centered higher education.

### Getting the Word Out

The problem starts with language. *Industry-recognized certifications, microcredentials, career lattices, unbundled learning, even noncredit continuing education and middle-skill jobs*: This was well-worn vocabulary for the educators around the table – but hardly household terms for most Americans.

Professionals in every field use their own specialized argot – no surprise there. But colleges advancing a new approach to higher education need to be able to communicate about their goals and the programs they offer to parents, students, employers, policymakers, and other educators up and downstream from community colleges.

Colleges that offer primarily job-focused education already face an uphill battle. Even students who understand their options may struggle to choose between, say, a conventional liberal arts BA and a 12-week program leading to an NCCER certification offered on the noncredit side of a community college.

But without a better understanding of the new credentialing and the broader approach in which it's grounded, it's hard to expect most students to make meaningful decisions – and hard to see the new approach taking off on a significant scale.

What's needed isn't just marketing – many community college educators are adept at marketing their programs. The challenge ahead is steeper: to create a market where none exists today, educating students and employers about what's on offer and persuading them it's what they need to meet their goals.

## An Essential Message

The educators around the table in Indianapolis agreed all but unanimously about the message they believe should be communicated to other stakeholders – three critical, complementary points.

**Many paths to success.** First and foremost, there are many paths to postsecondary success: academic and occupational, credit and noncredit, front-loaded in the years after high school and spread out over a lifetime. Training and education may be less different than many think – arguably, in the end, a single category.

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**A new kind of student.** A second essential point: the explosive growth in recent years of nontraditional students – older learners, often working and raising families even as they make their way through college – is just the beginning. In years to come, as automation and artificial intelligence transform the workplace, adult learners may outnumber traditional, college-age students at many community colleges.

**Bridging credit and noncredit.** Third, noncredit programs that culminate in industry certifications need not be viewed as an alternative to credit-bearing certificates and degrees. On the contrary, for many students, shorter credentials are an essential stepping stone on the way to an academic award – and educators need to do more to create seamless pathways.

For many around the table, this was the most significant communications challenge – how to explain the value of shorter, stackable credentials?

The educators were encouraged by a handful of ongoing initiatives to catalogue the new credentialing. The searchable database being developed by the nonprofit Credential Engine is an important step toward mapping the new landscape.<sup>15</sup> So is work under way at the U.S. Chamber of Commerce Foundation: an online job registry that will include information about in-demand credentials.<sup>16</sup>

Data analytics firm Burning Glass Technologies tracks certifications listed in job postings to identify those most widely requested and accepted in the labor market.<sup>17</sup> Many states have developed lists of industry certifications of value to employers in their jurisdictions. Many employer associations are working to educate their members about the new credentialing. And academic researchers are beginning to explore the territory.

But there is still a long way to go before the new credentials are household terms or readily recognized currency in the U.S. job market.

## Getting Word to Educators and Community Partners

Community colleges are a critical node in a network of institutions devoted to education and training. Two-year colleges recruit from high schools. They send graduates to four-year colleges and universities. They partner with workforce-development boards and one-stop job centers. Many also work closely with community organizations, churches, unions, nonprofit and for-profit training centers, as well as local companies.

The complaint that came up again and again in Indianapolis: Most of these partners don't understand the new workforce education or the new credentialing – and this poses a major obstacle to public acceptance and scaling.

A number of colleges represented at the meeting are working to address this lack of knowledge, exploring or forming partnerships with other kinds of institutions.

Some are collaborating with four-year institutions to create a path for students with nontraditional credentials. One approach being pioneered in Massachusetts and Michigan: co-location. Students who start off in shorter programs, earning job-focused certificates and certifications, go on to take courses offered by a four-year institution without leaving the community college campus.

Other educators are collaborating with nonprofit organizations that provide wraparound services for students seeking industry certifications. Colleges in Florida and Michigan have developed partnerships with the Urban League. Others are working with local neighborhood groups or workforce-development boards.

Still, in this realm too, much remains to be done.

### **Getting Word to Employers**

There was no dissent around the table: Employers are the most important partners in any community college's ecosystem. They are and must be at the center of the new job-focused education. And yet, paradoxically, many employers are unaware of the new approach.

Many employers are skeptical that the local community college is flexible and responsive enough to provide up-to-date job training. Many don't know about the new credentialing – even, in many cases, credentialing developed by their own industry. Still other employers have relationships with local colleges, perhaps as members of an advisory committee, but aren't sure it's worth their time. Many find that advisory committees are more about employer sign-off than meaningful employer input.

The educators in Indianapolis offered a different vision – much closer, more engaged collaboration in which companies drive important decisions about curriculum and credentials. The challenge: how to convey this opportunity to employers and engage them in a more meaningful way?

Much of the conversation in Indianapolis focused on using the new credentialing to advance deeper cooperation between educators and employers.

The first step is education. Employers often don't know which credentials to trust. Many don't know how to read the signals embedded in a given certificate or certification: What does it tell them about the skills of the job applicant who presents it?

Other companies are still looking for candidates with bachelor's degrees – even though the job the firm seeks to fill may not require bachelor-degree skills or few current jobholders have four-year degrees.

**There is still a long way to go before the new credentials are household terms or readily recognized currency in the U.S. job market.**

Among the messages that educators want to convey to employers: Not every student needs a degree, and not every job should require one. Industry certifications are often a better tool for companies trying to identify promising new hires.

Still another essential insight from Indianapolis: Employers and educators who come together to talk about the new credentialing often have more focused, more productive conversations than those who trade less precise, less concrete information – even information about labor market trends and hard-to-fill jobs.

Almost by definition, a conversation about credentialing is practical and specific. There's less room for employers and educators to talk past each other. And the concrete specificity of the conversation makes it easier to engage multiple employers.

Bottom line: the new credentialing is an essential tool – an end in itself. But it's also an important means to an end: better ongoing communication between employers and educators.

### **Students**

Of all the target audiences that need to better understand the new approach to workforce education, none is more important than students. Do students understand what's on offer? Do they grasp the doors it can open? Will they enroll in programs that lead to something other than academic certificates and degrees?

The educators gathered in Indianapolis were of two minds about attracting students. Some were convinced that if they build it, students will come. Others saw a need for more active, intentional outreach and persuasion about the value of a job-focused approach.

The conversation centered on two different but related challenges: attracting students and guaranteeing equity – not just diversity, but equal opportunity for women and students of color, ensuring that, as one educator put it, "each student receives what they need to be successful."

**Not every student needs a degree, and not every job should require one. Industry certifications are often a better tool for companies trying to identify promising new hires.**

**Attracting students.** The educators offered several ideas for attracting students. One popular tactic: Show them a seamless path from high school through college and into the workplace.

There are many ways to structure a seamless path, including dual enrollment, early college high school, and three-way partnerships among high schools, companies, and community colleges.

Among the options with most appeal for students, according to the educators, are concurrent work-and-learn models that combine classroom instruction with on-the-job experience at a company. Students are impatient to get into the workplace. They welcome the opportunity to start earning while in college, and programs that include on-the-job learning all but sell themselves.

A second approach: Show students the return on investment – starting salaries for in-demand technical jobs, what they can earn with industry credentials and how their salaries can grow if they continue to learn through their careers.

A third tactic – among the easiest ways to increase the number of students earning alternative credentials – is to embed the new credentialing in traditional degree programs.

In such cases, students need not face a choice between a degree and an industry certification, or between the credit and noncredit divisions of the college. The extra credential is a bonus students collect on the way to a degree – no tradeoff or decision necessary.

The new credentialing is also an important means to an end: better communication between employers and educators.

**Equity.** Attracting students is only half the battle. The educators who met in Indianapolis were also deeply worried about equity – would the new approach work equally well for all students?

“Not every student will be able to navigate the new landscape,” one educator warned. “Who will be left behind?” another asked anxiously.

The educators offered an array of ideas to meet this challenge.

Their solution starts with information – disaggregated data made available to educators and the public. Who enrolls in college, who completes programs, who earns the new credentials – each must be broken down by gender, race, age, and family responsibilities. Colleges should be required to act on the data – to make an active effort to recruit more equitably and help all students complete programs. And those institutions that fail to act should be reminded by third parties.

Other proposals focused on partnerships. Colleges should identify organizations that are trusted in the local community – nonprofits, churches, neighborhood groups – and collaborate with them to recruit students who might not otherwise consider college.

Also necessary in the educators’ eyes: professional development for faculty and a second kind of tough conversation – with employers.

A final set of suggestions centered on how colleges treat nonwhite, low-income, and other underrepresented students once they arrive on campus.

Institutions should work to make programs as inexpensive and accessible as possible, including by replacing costly textbooks with open educational resources. Colleges can help students of color feel more comfortable with dedicated orientation sessions and other supports. Still other educators suggested contextualizing job-focused learning to resonate with nonwhite students.

## **Institutional Capacity**

Community colleges vary widely. Some serve just a few thousand students; others boast enrollments the size of a small city. They exist in rural, urban, and suburban settings. Some focus largely on readying students for transfer to four-year colleges. Others see their primary mission as preparing students for the world of work.

The balance between credit and noncredit offerings also varies widely. Some institutions offer virtually no noncredit options. At other schools, the continuing education division is as large or larger than the

credit side of the house. And noncredit divisions, too, vary widely – some catering primarily to students' personal interests, others focused all but exclusively on workforce training.

This means there can be no single blueprint for scaling more job-centered approaches. Some institutions are sure to find the new models more appealing than others, and resistance is likely to vary considerably from campus to campus.

The educators gathered in Indianapolis expressed concern about colleges' capacity to change. The key to success, they maintained, will be flexibility: responding quickly and nimbly to changing technology and stakeholder demand – from students and employers. Can most community colleges keep up with the pace of change? The educators weren't sure.

**Among the gaps to be bridged, none is more important than the divide between credit and non-credit divisions.**

### **Central to the Work of the College**

The new job-centered approach is unlikely to take off, educators felt, unless it becomes what one participant called "central to the work of the college" – a core pillar of the school's mission, understood and endorsed across all departments.

Among the gaps to be bridged, none is more important than the divide between credit and noncredit divisions.

The noncredit side of the college is often the natural home for job-focused programs and nontraditional credentialing. But it often exists in a world apart, separate from the rest of the school and looked down upon as second-tier – not really "college."

The educators in Indianapolis agreed emphatically: This gulf must be bridged.

Credit and noncredit divisions need to learn to work together. Liberal arts faculty and others on the credit side of the house must be educated about the value of a more job-focused approach. They need to understand the new credentialing and accommodate students who arrive in their classes with nontraditional awards. Educators on the credit side can also learn from noncredit administrators, emulating, among other strengths, their close relationships with employers.

At most colleges today, the line between credit and noncredit is bright and clear. But over time, the educators hoped, it may begin to blur.

It will take strong, determined leadership to effect change of this kind, but change is possible.

Even as they expressed concern about institutional capacity, the educators offered examples of colleagues working to blur the boundary between credit and noncredit divisions.

At one college in Alabama, the two divisions work together to attract students, and all recruits go through the same intake process, whether they're heading for job-focused continuing education or an academic path to a four-year institution.



A college in another state carved up its credit and noncredit divisions to isolate occupational programs, then merged those programs in a single division – credit and noncredit career-focused courses combined under one umbrella.

Still another school, this one in West Virginia, has abolished its continuing education division altogether – but found a way to preserve the unique strengths of a traditional noncredit approach.

Former noncredit administrators still work closely with local employers to launch new programs quickly in response to changing labor market demand. Most occupational offerings are still shorter than a semester, and many lead to industry credentials. But taken in sequence, these shorter modules can add up to a semester of credit, and students accumulate microcredits that count toward academic certificates and degrees.

In other situations, noncredit instructors and deans work with colleagues on the credit side of the college to develop programs, forge relationships with employers, recruit faculty, and pool resources to maintain equipment.

This cross-pollination doesn't always come naturally. Credit and noncredit instructors often bring different assumptions to the table – different styles and, sometimes, different values.

But when it works, the combination can be hard to beat – the best of both worlds. The ideal mix: a college that can respond nimbly to employers and students seeking short job-focused programs while also offering a path to learners who want a certificate or degree.

### **Articulation**

The ultimate challenge for administrators working to build bridges between credit and noncredit divisions: translating what students learn in a continuing education program – or on the job – into credit they can apply toward an academic certificate or degree.

Today, the line between credit and noncredit is bright and clear. Over time, it may begin to blur.

The two biggest obstacles to building these bridges: resistance from traditional faculty and lack of resources. Translating credentials can be time-consuming and expensive, particularly for a small community college.

Still, most of the educators in Indianapolis reported that someone on their campus was grappling with the challenge. This suggests there is widespread experimentation with credit for prior learning and articulation.

The new credentialing can help span the gap.

More and more noncredit programs are preparing students to earn industry credentials – increasingly accepted currency among noncredit educators. But a growing number of credit-bearing occupational programs also lead to industry certifications. And some colleges allow students who have earned industry credentials in another setting – a noncredit program, noncollege training, or on the job – to test out of some portion of a credit-bearing course.

Also, increasingly popular on many campuses: prior learning assessments that enable students to earn college credit for skills acquired outside a classroom – on the job, or in the military.

The educators in Indianapolis said they see progress at their colleges and elsewhere. Students seeking college credit for life experience or a nontraditional credential don't meet a brick wall as often as they once did. But acceptance is rarely automatic; there are few general guidelines and few guaranteed correspondences.

The most common outcome appears to be case-by-case consideration – student by student and credential by credential. For a student seeking college credit, this is better than nothing, but often a slow, cumbersome process – and it's costly for colleges.

Many educators see this as the next frontier – a critical test for colleges making the transition to the new job-focused approach.

### **Mid-career Students**

Of all the issues weighing on the assembled educators, few seemed more pressing than the demographic shift they see on the horizon: the growing number of mid-career adult learners coming back to college to acquire new skills – what some call “lifelong learners” or “second-act students.”

No one can predict how many workers will be displaced in coming years by automation and artificial intelligence. No one knows exactly what skills they'll need to retool for the future. But the educators gathered in Indianapolis are bracing for the challenge.

More likely than not, in their view, the job will fall to community colleges. Many mid-career learners will likely want short, job-focused programs. They may or may not be interested in earning college credit. Their number-one priority is likely to be labor market alignment – will the course lead directly to a job? And many will put a premium on speed – how quickly can they complete the program and get back to work?

**A critical challenge at many colleges: translating what students learn in a continuing education program – or on the job – into credit they can apply toward a certificate or degree.**

Community colleges should be well-positioned to accommodate an influx of mid-career students. Most have extensive experience serving adult learners. They know what it takes to help displaced workers retool. But the group at the table was worried – not sure their institutions are ready for what lies ahead.

The challenge that seemed to concern them most: helping older students navigate the new terrain of lifelong learning.

The pattern they foresee: many more students coming to college for a course or two, then going back to work, then, three or five or

10 years down the road, reappearing at college for another round of training. “Are colleges set up for this?” one administrator asked anxiously. “Can we handle it?”

What can and should community colleges be doing to prepare for the challenges ahead?

A critical first step, according to the educators: rethinking and retooling recruitment of older students. Will displaced adult workers know where to turn for mid-career job training? Will they look to community colleges? Is existing college outreach likely to reach or appeal to them? The educators were skeptical and eager to see their institutions doing more.

A second step: restructuring and revamping college offerings to make them more appealing to adult learners. The educators had ideas about scheduling – offering more classes in the evening and on weekends. They also talked about streamlining programs, eliminating options and electives that could distract adult learners or slow them down. But clearly, this is only the beginning. Much more must be done.

A third challenge: An influx of adult learners is sure to sharpen the need for better bridges between credit and noncredit options.

Many mid-career learners will be looking for short, unbundled, job-focused training of the kind offered in colleges' noncredit divisions. Many will bring a jumble of prior learning experiences, and some will want college credit for what they learned in the past, whether in a classroom or elsewhere.

Many mid-career learners will be looking for short, unbundled, job-focused training of the kind offered in colleges' noncredit divisions.

Are colleges prepared to handle what could be rapidly expanding demand for prior learning assessments and articulation? Many of the educators were doubtful.

A last, formidable obstacle for displaced adult workers and the colleges that serve them: Many mid-career students will be ineligible for federal financial aid.

Many are likely to have exhausted their lifetime allotment of education assistance. Others, with one foot still in the job market, will earn too much to qualify for needs-based Pell funding. And those who enroll in noncredit programs are likely to have little or no access to federal financial aid.

## The Role of Public Policy

Community college governance varies widely. Some schools are all but autonomous, run by independent college presidents overseen by locally elected boards of directors. In other places, a state agency makes policy for a statewide college system – centralized decisions about spending, hiring, curriculum, and a host of other questions.

Still, no matter where on this spectrum they fall, virtually all community colleges rely heavily on government funding – some combination of federal student aid, local property tax revenue, and state institutional support. Even the most independent institutions report extensive data to one or more state agencies, and all respond to a variety of state funding incentives.<sup>18</sup>

Not surprisingly, then, the educators in Indianapolis were eager to discuss policy – they want lawmakers, state and federal, to help ease the transition to the new world of job-focused education.

They had a long wish list – many ideas about what government could and should do to help. As a rule, they focus more on state than federal policy, and they'd like to see states doing more to share best practices and learn from each other. But they also have suggestions for Washington.

Their proposals fall into three broad categories. They want lawmakers to recognize and track information about the new credentialing and the new job-focused approach to education and training. They want policymakers to provide resources – increased funding to ease the transition to this new world. And they want state help to convene allies – employers and other potential partners who can work with colleges to develop programs and align them with a changing labor market.

## Better Information

Metrics matter – what gets measured gets improved. Educators, policymakers, parents, and the media pay attention to the information that state and federal agencies collect about colleges. And the administrators gathered in Indianapolis want lawmakers to bear down on two kinds of data: labor market information to help them align the programs they offer with in-demand job opportunities, and outcomes data they can use to showcase the value of job-focused education and training.

**Labor market information.** Twenty-first century data-collection methods have vastly improved what's known about local labor markets. A wide variety of nonprofit organizations and for-profit companies collect copious, granular information about supply and demand for workers, broken down in every conceivable way – geographically, demographically, by occupation, over time, and more.

**Educators want lawmakers to collect outcomes data they can use to showcase the value of job-focused education and training.**

This information can be invaluable to a job-focused postsecondary education or training provider, but it's often prohibitively expensive – especially for a small community college.

What states can do: purchase and disseminate information – or, equally helpful, create channels for in-state education and training providers to share the data they purchase.

**Enrollments, certifications, and outcomes data.** Even more important than information about labor markets, educators want states to use data more effectively to draw attention to the new job-focused education and training.

A first critical step is to collect better data. Without more revealing, more reliable information, it's all but impossible for educators to tell their story – to describe the new landscape or demonstrate the value of the new credentialing.

As is, many states gather little or no data about noncredit community college offerings. According to one national scan, now some years old, fewer than 15 states include information about noncredit education in their state-level data systems.<sup>19</sup> And there is no reliable national estimate; we have no idea how many students nationwide are enrolled in noncredit job-focused education and training.<sup>20</sup>

So too with industry credentials. It's often difficult for colleges to track which students earn industry certifications. In many cases, the tests are administered by third-party credentialing bodies, often employer associations that are not used to sharing data and hesitate to cooperate with college administrators or state officials. Many colleges have few options beyond surveying students after the fact – hardly a reliable method.

Similarly, at the state level, few states keep data on certification attainment, and those that do generally see only part of the picture. They track only credentials earned by students at accredited institutions, not those who prepare for the test some other way – on the job or in a noncollege training program.

Even less is known in most states about employment outcomes – job placements and earnings for students who have completed programs. Many states match student records with information collected from employers by the state agency that manages unemployment insurance. But the resulting data rarely include information about noncredit students or industry credentials.

A few of the assembled educators work or have worked in states that have found ways to collect data on noncredit enrollments and nontraditional credentialing. Florida, Missouri, North Carolina, and Virginia are among those making inroads. But so far, they are exceptions that prove the rule.

The educators in Indianapolis were all but unanimous: They would be more than willing to collect information about noncredit enrollments and industry certifications if states would make better use of it to tell the story of the innovations taking place on college campuses.

“Give us a system,” implored one workforce dean from a small, rural community college. “Give us a simple, standardized way to report this information to the state or the feds, and we’ll be all over it.”

### **Incentives and Funding**

With metrics comes accountability – sometimes burdensome accountability. But the educators in Indianapolis seemed prepared for that. They said they would welcome more accountability for nontraditional credential attainment and job outcomes. As is, they often feel they are being measured with the wrong yardsticks – metrics designed for programs with a different mission – and they are eager to be judged by more appropriate standards.

A case in point: completion. Most states measure and reward college completion rates – students who stay the course to the end of the program and earn a certificate or degree. But in many states, non-credit students and those earning nontraditional credentials are not included in completion data.

Consider the student who enrolls in a noncredit welding course and earns an industry certification. Few employers will care if the student completes the program. The lure of the labor market will be hard for many students to resist, and many will drop out to take a job.

The upshot for the college: the student will be counted as a non-completer – by state standards, a failure for the institution, even though he or she is now gainfully employed and probably earning significantly higher wages than before enrolling in college.

Worse still, in many instances, completion metrics create the wrong incentives for colleges.

Even less is known in most states about employment outcomes – job placements and earnings for students who have completed programs.

Job-focused students want to get in and out of school as quickly as possible and get back in the job market. Yet state funding formulas encourage colleges to add curriculum many students do not want or need. “We should be unbundling programs to meet workforce demand,” one administrator explained, “not padding out courses so our data look better.”

Still another problem with completion metrics: They’re geared to traditional college-age students, not lifelong learners. State and federal data emphasize time to completion – the number of students who earn degrees within 150 percent of the “normal” time – three years for an associate degree, six years for a bachelor’s.

Few lifelong learners are on this schedule. But as long as a college’s reputation and funding depend on its 150 percent completion rate, there is little incentive for colleges to accommodate lifelong learning.

This problem came up again and again in Indianapolis. Colleges that focus on preparing students for employment – and programs geared to the new credentialing rather than academic degrees – are being measured with the wrong yardsticks.

The educators offered a few examples of states that are rethinking their metrics – exceptions to the rule, but also exemplars that can be replicated.

Although roughly two-thirds of the states now tie some portion of state higher education funding to college performance, only about a dozen reward employment outcomes or nontraditional credentialing.<sup>21</sup>

Texas offers additional funding for students who earn academic certificates. Florida, Missouri, North Carolina, and Virginia reward attainment of industry certifications. State funding for Texas State Technical College is based almost entirely on employment outcomes.<sup>22</sup>

These states demonstrate what can be done – metrics and funding can be re-engineered to showcase and reward job-focused education and training. The educators in Indianapolis want to see more states moving in this direction.

They also want states to think more creatively about funding – going beyond per-student subsidies and performance-based funding to provide resources for capacity building.

Job-focused education is expensive. Maintaining up-to-date technology, hiring instructors out of industry, keeping teacher-student ratios low enough to provide the hands-on instruction needed in, say, nursing or welding classes – all of this requires extra funding.

So does the new credentialing. Developing new credentials, crafting curriculum geared to industry certifications, matching what's taught in noncredit programs to credit-bearing curricula – these are time-consuming, expensive projects. Colleges will need help – lots of help – to pursue them on a wider scale.

Colleges focused on preparing students for employment are being measured with the wrong yardsticks.

### Convening

All the colleges represented in Indianapolis work hard to reach out to employers and build relationships. But they were all but unanimous, and they came back to the issue again and again: Educators can't do it alone.

The group had a long list of ideas about what states can do to help.

**Identifying high growth industries.** Options start at the macroeconomic level. Policymakers can identify their state's critical industries – the five or six sectors growing most rapidly and creating high-demand, high-paying jobs.

Many states already do this or are moving in this direction. Among those that do it well: Colorado, Florida, and Virginia.

The educators would like to see more states identifying high-growth industries, disseminating information about labor market demand, and supporting these dynamic sectors with targeted workforce-development dollars.

**Incentivizing collaboration.** A second step: States can help colleges recruit employer partners and reward companies that step up to build relationships.

Educators want to see states reaching out to employers and offering them tax incentives to partner with community colleges. They would also like states to impose tougher requirements on firms that receive state training subsidies.

Educators want to see states reaching out to employers and offering them tax incentives to partner with community colleges.

Some promising examples of what can be done: Alabama, Colorado, Michigan, and North Carolina maintain programs that funnel customized training funds through community colleges. West Virginia matches wages paid by companies that partner with colleges to offer earn-and-learn training. North Carolina pays 100 percent of community college tuition for students in formal apprenticeship programs.

**Sector partnerships.** Even without financial incentives, states can help by convening educators, employers, and other partners to plan job-focused education and training.

Colorado, Tennessee, and New Jersey show what can be done. All three states devote considerable resources to maintaining sector partnerships that bring together community colleges, companies, unions, workforce-development boards, and state agencies responsible for social services and wrap-around education supports.

The educators gathered in Indianapolis want to see more of this in other states – much more.

## Conclusion

The colleges represented in Indianapolis may not be a representative sample. But if the picture they paint is accurate, community colleges are at a crossroads.

Three questions hang over the future.

First, what share of colleges are rethinking and reshaping their offerings along the lines discussed in Indianapolis? And how far do these changes go? Are they mostly tinkering around the edges? Or is the innovation more deep-seated – a genuine transformation?

Second, can community colleges outpace emerging rivals – other kinds of job-focused postsecondary education and training? Coding boot camps, employer-provided on-the-job training, and last-mile training and placement services are all competing for the same market – including the same older students. Few of these new noncollege providers have the reach and scale of community colleges. But they are often nimbler and growing fast.

Finally, will policy – state and federal policy – keep up with the innovation on college campuses?

The session in Indianapolis underscored an enduring paradox. State incentives – metrics and funding – shape a great deal of what happens at community colleges. But college programs and practices sometimes outstrip state regulation. A new idea takes hold, a new tool emerges, new demand from students or employers sends colleges in a new direction.

The new credentialing is a case in point. Few state incentives encourage community colleges to offer shorter, job-focused programs – or noncredit training, or lifelong learning for mid-career workers. By and large, those trends have emerged bottom up – in response to changing demand and facilitated by the new credentialing.

Yet colleges cannot hope to succeed in meeting this new demand unless policy catches up and incentives change.

The educators gathered in Indianapolis pointed to a bright new future for community colleges. Whether that prediction will come to pass is an open question.

## About the Author

**Tamar Jacoby** is president of Opportunity America, a Washington-based nonprofit working to promote economic mobility – work, skills, careers, ownership and entrepreneurship for poor and working Americans. A former journalist and author, she was a senior writer and justice editor at Newsweek and, before that, deputy editor of The New York Times op-ed page. Her articles have appeared in The New York Times, The Wall Street Journal, The Washington Post, The Weekly Standard and Foreign Affairs, among other publications. She is the author of “Someone Else’s House: America’s Unfinished Struggle for Integration” (Free Press, 1998) and editor of “Reinventing the Melting Pot: The New Immigrants and What it Means to be American” (Basic Books, 2004) and “This Way Up: New Thinking about Poverty and Economic Mobility” (AEI, 2018). Since 2008, she has also been president of ImmigrationWorks USA. She has taught at Yale University, New York University, and The New School for Social Research. She has been a senior fellow at the Manhattan Institute for Policy Research, a Bernard L. Schwartz fellow at New America, a Berlin Prize Fellow at the American Academy in Berlin and an Alicia Patterson Journalism Fellow. In 2004, she was confirmed by the U.S. Senate to a seat on the advisory board to the National Endowment for the Humanities. She holds a bachelor’s degree from Yale University.



## End Notes

<sup>1</sup> This paper uses the term “community college” in a broad sense to include all two-year public institutions of higher education. Some states use the label “community and technical college.” Other states maintain two separate systems – community colleges and technical colleges. In still other places, the term is “city college.” Other institutions, often those that offer occupationally focused baccalaureate degrees, use no modifier, “community” or other. The innovation described in this paper is emerging across this varied spectrum of institutions.

<sup>2</sup> <https://eric.ed.gov/?id=ED573824>, chapter by Peter Riley Bahr and Jillian Gross.

<sup>3</sup> Ibid.

<sup>4</sup> <https://goodjobsdata.org/>

<sup>5</sup> <https://www.educationnext.org/community-colleges-career-education-new-non-degree-programs-skip-general-education-requirements/>

<sup>6</sup> [https://nces.ed.gov/programs/coe/indicator\\_ctr.asp](https://nces.ed.gov/programs/coe/indicator_ctr.asp)

<sup>7</sup> <https://www.aei.org/wp-content/uploads/2017/11/The-Path-Less-Taken.pdf>

<sup>8</sup> <https://www.dol.gov/asp/evaluation/completed-studies/Employer-Perspectives-Study-Report-Round-Final.pdf>

<sup>9</sup> This and the paragraphs that follow are based on <https://www.educationnext.org/community-colleges-career-education-new-non-degree-programs-skip-general-education-requirements/>

<sup>10</sup> Interview with Lord Fairfax Community College vice president of workforce solutions and continuing education Jeanian Clark, Jan 25, 2019.

<sup>11</sup> This and the paragraphs that follow are based on <https://opportunityamericaonline.org/wp-content/uploads/2019/02/FAME-final-final.pdf>.

<sup>12</sup> <https://www.educationnext.org/community-colleges-career-education-new-non-degree-programs-skip-general-education-requirements/>

<sup>13</sup> Brenda Perea, “Using microcredentials to build flexible degree completion and career pathways,” forthcoming in *New Directions for Community Colleges*.

<sup>14</sup> Ibid.

<sup>15</sup> <https://credentialengine.org/about/>

<sup>16</sup> <https://www.uschamberfoundation.org/sites/default/files/Clearer%20Signals.pdf>

<sup>17</sup> <https://www.burning-glass.com/research-project/certifications/>

<sup>18</sup> <http://www.aei.org/wp-content/uploads/2017/11/Rethinking-the-Mission.pdf>

<sup>19</sup> <https://ccrc.tc.columbia.edu/media/k2/attachments/noncredit-workforce-education-policy-practice.pdf>

<sup>20</sup> The American Association of Community Colleges estimates that there are 5 million noncredit students nationwide – <https://www.aacc.nche.edu/research-trends/fast-facts/>. But this estimate has not changed since the organization first proposed it, in 2010 – precisely because no one knows.

<sup>21</sup> <http://www.aei.org/wp-content/uploads/2017/11/Rethinking-the-Mission.pdf> and [http://hcmstrategists.com/wp-content/uploads/2018/03/HCM\\_DBO\\_Document\\_v3.pdf](http://hcmstrategists.com/wp-content/uploads/2018/03/HCM_DBO_Document_v3.pdf)

<sup>22</sup> <https://www.luminafoundation.org/files/resources/linking-appropriations-to-outcomes-tx-1.pdf>

## Meeting Participants

### The Future of Learning and Work, Lumina Foundation, February 6, 2019

**Leslie Backus**, Director of the Center for Supply Chain Education, Broward College  
**Karin Edwards**, President, Cascade Campus Portland Community College  
**Douglas Flor**, Dean of Workforce and Economic Development, Central Alabama Community College  
**Sean Gallagher**, Executive Director of Northeastern University's Center for the Future of Higher Education and Talent Strategy, and Executive Professor of Educational Policy  
**Donald (Guy) Generals**, President, Community College of Philadelphia  
**Tamar Jacoby**, President, Opportunity America  
**Kemi Jona**, Associate Dean for Digital Innovation and Enterprise Learning and the Founding Director of the Lowell Institute School at Northeastern University  
**David Leaser**, Executive of Strategic Growth Initiatives for IBM's Training & Skills Program  
**Lisa Lutz**, President and CEO of SOLID, LLC.  
**Nan Maxwell**, Senior Researcher, Mathematica Policy Research  
**Russell McCaffery**, Dean, Industry, Manufacturing, Construction and Transportation, Broward College  
**Brenda Perea**, Director of Educational and Workforce Solutions, Credly  
**Kent Phillippe**, Associate Vice President, American Association of Community Colleges  
**Bill Pink**, President, Grand Rapids Community College  
**Hal Plotkin**, Consultant on Accelerated Pathways, College Promise Campaign  
**Richard Rhodes**, President/CEO, Austin Community College District  
**Lenore Rodicio**, Executive Vice President, Miami Dade College  
**Casey Sacks**, Deputy Assistant Secretary for Community Colleges, Office of Career, Technical, and Adult Education, U.S. Department of Education  
**Louis Soares**, Chief Learning and Innovation Officer, American Council on Education  
**Karen Stout**, President/CEO, Achieving the Dream  
**Steven Taylor**, Director, Education Attainment and Innovation, American Council on Education  
**Chuck Terrell**, President, Eastern West Virginia Community and Technical College

### Lumina Foundation

**Courtney Brown**, Vice President for Strategic Impact  
**Chauncy Lennon**, Vice President for the Future of Learning and Work  
**Holly Zanville**, Strategy Director for the Future of Learning and Work

*\* Among the items on the agenda at this meeting was a series of essays on community college credentialing to be published in 2020 by the journal *New Directions for Community Colleges*. The volume, "Credentials for a New Era of Work and Learning," edited by Nan Maxwell and Sean Gallagher, explores a new credentialing ecosystem emerging at companies and colleges across the United States..*