Community College Growth Engine Fund

Micro-pathways: A Gateway to Community College Transformation

Executive Summary
The Education Design Lab (Lab) is a national nonprofit that co-designs, prototypes, and tests education-to-workforce models through a human-centered design process focused on understanding learners' experiences, addressing equity gaps in higher education, and connecting learners to economic mobility. The Lab believes human-centered design allows colleges and universities to map and galvanize their existing strengths to meet the needs of the students they serve.

The current COVID-19 crisis and historic inequities in our labor market have disproportionately impacted and exacerbated long-standing barriers for new majority learners. Higher education institutions have been forced to adapt quickly, clarify their value proposition, and develop new business models.

That’s why the Lab launched the Community College Growth Engine Fund (CCGEF or the Fund, for short) — a design accelerator to work with community colleges and systems across the country to co-create a new class of credentials: micro-pathways.

---

**Micro-pathways Explained**

Co-designed with learners and employers, micro-pathways are defined as two or more stackable credentials, including a 21st century skill micro-credential, that are flexibly delivered to be achieved within less than a year and result in a job at or above the local median wage.
The First CCGEF Cohort

The six colleges and systems in the first CCGEF cohort include:
+ Seattle Colleges
+ The City University of New York
  Borough of Manhattan
  Kingsborough
  LaGuardia
  Queensborough Community Colleges
+ Prince George's Community College
+ Ivy Tech Community College
+ Austin Community College
+ Pima Community College

Between October 2020 to December 2021, they developed 30 micro-pathways aligned to a set of design criteria informed by best practices in the field and driven by years of Lab design work with community colleges and employers.

We’re revealing these models along with the innovative design elements from each institution in the next section.
Innovative Design Elements of Emerging Micro-pathways

This section features emerging micro-pathway models and innovative design elements from each institution. After some brief background information, a list of the micro-pathways each college launched or will launch in 2022 links to visuals showcasing how these models came together. In addition, the design teams each selected two innovations they are most proud of.

To view all of the micro-pathway models organized by institution, see the CCGEF Micro-pathway Repository.
Translating learning outcomes and curriculum into "rich skill descriptors."
+ Engaging employers in deep and meaningful ways, including one employer donating $200,000 in scholarships to support micro-pathway learners.
+ Formalizing a new noncredit on-ramp for adult learners with access to advisors, financial support and seamless credit articulation.
+ Instituting an adult-friendly website resulting in more than 1,000 learners submitting interest forms at pilot launch.
+ Making the noncredit-to-credit articulation process seamless, in one case even mixing noncredit and credit in the same micro-pathway.
+ Advocating for state funding to cover tuition and materials to support micro-pathways learners.

MICRO-PATHWAY OCCUPATIONS
+ Amazon Web Services (AWS)
+ Cloud Practitioner
+ Junior Extended Reality (XR) Developer
+ Epic Associate
+ Supervisor
+ Remodeler

MICRO-PATHWAY OCCUPATIONS
+ Automotive Service Technician
+ Industrial Engineering Mechanic
+ Carpenter
+ Electrician
+ HVAC Technician
+ Plumber
+ Computer User Support Specialist
+ Emergency Medical Technician (EMT)

MICRO-PATHWAY OCCUPATIONS
+ Heavy Truck + Trailer Driver
+ Cloud Associate
+ Broadband Technician
+ Electro-Mechanical Manufacturing Technician
INNOVATIONS
+ Creating EMT-specific scenarios to support 21st century skills development.
+ Ensuring learners have a clear understanding of the requirements and commitments of the EMT micro-pathway and occupational requirements prior to enrolling.

INNOVATIONS
+ Instituting a co-design approach across the Continuing Education and Workforce Development Division through the use of the T-Profile Tool with employers.
+ Awarding badges for technical and 21st century skills credentials.

INNOVATIONS
+ Ensuring noncredit and credit programs complement and enhance each other rather than compete.
+ Engaging employers resulting in over 50 employers offering internships in community health and data analyst employers covering 100% of programs costs for learners.

MICRO-PATHWAY OCCUPATIONS
+ Emergency Medical Technician (EMT)
+ User Experience (UX) Designer
+ Community Health Worker
+ Cybersecurity Professional
+ Entry-level Data Analyst

NAME
City University of New York (CUNY), Borough of Manhattan Community College

NAME
City University of New York (CUNY), Kingsborough Community College

NAME
City University of New York (CUNY), LaGuardia Community College
City University of New York (CUNY), Queensborough Community College

**INNOVATIONS**
+ Piloting the Persistence Plus Model with 400 learners enrolled in the Cloud Engineer micro-pathway.
+ Successfully pursuing federal grants with other CUNY colleges.

Prince George’s Community College

**INNOVATIONS**
+ Instituting a holistic advising model for all learners, including those who start in the Continuing Education division.
+ Beginning the transitioning to Competency-based Education model across the college, starting with their three micro-pathways.

**MICRO-PATHWAY OCCUPATIONS**
+ Software Engineer
+ Entry-level Cloud Engineer

City University of New York (CUNY), Queensborough Community College

**INNOVATIONS**
+ Launching a new Continuing Education Scholarship Fund, providing last-dollar funds for noncredit micro-pathways.
+ Articulating credits for higher-level certificate and/or associate degree.

**MICRO-PATHWAY OCCUPATIONS**
+ Healthcare Technician
+ Hospitality Leadership
+ IT Support Specialist

**MICRO-PATHWAY OCCUPATIONS**
+ Administrative Assistant
+ Production Associate
Design Insights from Key Stakeholders

At its core, human-centered design is built on empathy, and requires us to understand and engage those most proximate to the problem as experts. This section offers a wide range of insights gathered during the design year that are organized by key stakeholders who participated in the process.
Design Insights about Shifting Learner Attitudes + Needs

#1 Learners need practical pathways with a clear return on investment (ROI). Learners need high-level details about the program to understand the total cost of pathways, in both time and money, as well as the value to be gained.

#2 Learners need flexible micro-pathways that meet them where they are in their journey. Learners need flexibility in format and timing as well as recognition of their life and work experiences.

#3 Learners want and need deeper and more extensive work-based learning. Learners want immersive experiences in the career field they are studying so they can establish contacts and begin to build a professional network.
#1 Employers need learners to have work-based learning experiences. Employers seek applicants who have work-based experiences whether it’s an internship, a job, volunteering, or a personal project they’ve built on their own.

#2 Employers see the micro-pathway co-design process as transformative to deepening their relationships with community colleges. CCGEF’s model helps colleges transform employer relationships to those of a co-designer where they are able to provide input on an ongoing basis.

#3 Employers strongly value training and credentialing for 21st century skills like communication, critical thinking and intercultural fluency. Employer partners appreciated the strong 21st century skills focus in the micro-pathways they reviewed.
Design Insights about Transforming Community Colleges

#1 The micro-pathway design process can serve as a gateway to institutional transformation. College leaders are using micro-pathways as a testing bed to solve numerous challenges, including the growing gulf between noncredit and credit-bearing courses.

#2 Colleges used their micro-pathways to further collaborate with other mission-aligned regional ecosystem initiatives. The design process has helped community colleges advance other workforce and system-level strategic initiatives.

#3 Facilitated design processes with targeted tools and customized support are critical to accelerated design work. College leaders and employers found value in the Lab’s "pressure tests," T-Profile, and Learner Engagement Framework, which will help strengthen future initiatives and decisions.

#4 The colleges demonstrated the ability to innovate with limited resources. While additional capacity would have enabled the colleges to expand even further, they made the most of the resources despite the challenges of designing micro-pathways during a pandemic.

#5 Champions of this work must ensure buy-in from college leadership. While the need for strong leadership is not a new requirement for transformation, the micro-pathway design process involves nearly every department across the institution.
The Road Ahead

Through the experience of participating in the CCGEF design accelerator, the institutions noted critical outcomes that are important to their ongoing success, including stronger, more intentional employer partnerships; new or improved models of articulating learning experiences outside of the traditional classroom; the addition of key services including advising for all learners; and the recognition of the power of human-centered design in driving institutional change to better serve new majority learners.

This work is far from done. There is still much to do to remove barriers and improve economic mobility for new majority learners. The Lab soon will begin our work with 13 new colleges in Cohort 2. We will continue to share proof points, tools and processes that will impact more learners, and strengthen communities across the country. This is just the beginning.