Community College Growth Engine Fund

Micro-pathways, Macro-Impact

By creating credentials with market power, market driven precision, and the speed to fit this new uncertain time, we can help New Majority Learners change their economic destinies and those of their communities.

Why Micro-pathways?

Whether called nanodegrees, micro-credentials, or any other term in the myriad, the need for credentials that are faster to obtain than a four or two year degree is palpable. Certificates and non-degree programs were the fastest growing learning offerings at community colleges over the last year. These are all attempts to break down degrees into targeted units of learning that name the skills employers are asking for in job postings and that are critical for success on the job. The times have called for a new class of credentials that are faster than a standard degree, ruthlessly hued to learner needs and more tied to market demand than any before. The Lab’s form of this new credential is the micro-pathway, which we argue will be an important bridge to the future in this new agile and uncertain time.

At the Lab, we define a micro-pathways as “two or more stackable credentials that can be packaged as a validated market signal connecting learners to employment in high growth careers.”
Effectiveness and Equity: Design Criteria for a Micro-pathway

Design Criteria serve as parameters or guardrails for our designed solution in order to meet the needs of the learners and other stakeholders. Through research and consultation, the Education Design Lab has developed the following design criteria for micro-pathways.

Data Informed and Dignity Focused
Using third party and credible economic data, the occupation and career of focus of the micro-pathway must lead to a job that:

- Pays the area median wage and,
- Over time, will credibly lead to other occupations that pay a living wage

Employer-Driven and Validated
After the learner, the main customer for these pathways are the employers and for these pathways to be effective enough at providing necessary talent, they must include:

- A focus on in-demand occupations
- Regional employers define the skills and competencies for occupations
- Regional employers co-design the credentials and recognize the stackable credentials as required or preferred in the hiring process

Move at the Speed of the Market
Ensuring that the micro-pathways move at the speed of market demands and learner needs, credentials must be able to be completed by any learner in less than one year. Additionally:

- Learners have on- and off-ramps into the pathways and into jobs upon exit
- Learners receive prior learning credits that can be applied to the micro-pathway
- The pathways provide opportunities for high school students to earn credits and credentials through dual credit agreements

Flexible delivery format
To be accessible and flexible for all learners, micro-pathway must:

- Be offered online or hybrid, learners are able to complete coursework in the least constraining format to accommodate life, school and work
- Take into account identified technology barriers of learners

Stackable, portable, and track towards a degree.
A micro-pathway must include two or more credentials that can stack towards a degree in a portable way and these credentials must meet the following:

- Credentials* include, but are not limited to, certificates, industry certifications, and micro-credentials
- Credentials are stackable and include at least one 21st Century Skills micro-credential
- Credits, courses, and credentials are portable and valued in the market
- Credits earned in the pathway count towards an associate degree
- Progression on the pathway is clearly communicated to learners

Affordable cost
Ensuring that price is not a barrier to micro-pathways requires that:

- Pricing takes into account the life situations of learners
- Pathways align to funding sources to support students, such as paid internships, scholarships, grants and public funds

Digitally discoverable
Once learners have completed their pathway, it must be the case that their credentials are discoverable by employers. Additionally:

- Learners are issued digital credentials (badges) and trained on how to use them to promote their accomplishments
- The competencies and essential information about the credentials are entered into a skills & credentials registry
How do we get there: Designing Micro-pathways

Achieving the design criteria previously mentioned, creating a pathway to economic dignity for the learner, and fulfilling the talent needs of employers requires a very deliberate process to be undertaken.

**Micro-pathway Design Process**

1. **Examine Market Demand**
   - Use labor market data + employer input to determine in-demand occupations.

2. **Determine Skills + Competencies**
   - Elicit skills + competencies needed by employers.

3. **Design to Learner Needs**
   - Discover + determine learner needs from direct inquiry.

4. **Test + Iterate Prototypes**
   - Test + iterate prototype pathways with all stakeholders.

5. **Marketing + Business Model**
   - Test + iterate on various business models.

6. **Finalize Pathways**
   - Finalize pathways components into a digitally discoverable + learner accessible format.

**On ramps:** Making sure that learners get into pathways through marketing + PLA

**Off ramps:** Working with employers to get learners into jobs

1. Examining market demand ensures that micro-pathways will lead to in-demand occupations. A crucial step in providing fruitful pathways for learners is actively engaging with employers and labor market data.

2. Fulfilling the talent needs of employers requires fully understanding the skills and competencies that employers are seeking. An open line of communication with employers throughout the design process is a key part of this process.

3. Engaging directly with learners during the design of the micro-pathway will lead to a design that meets the learner’s needs and avoids creating barriers. Without direct engagement, the efficacy of the design cannot be ensured.

4. Developing an effective micro-pathway requires testing with all stakeholders involved and iterating based on what is learned through testing.

5. Creating a financially sustainable model for micro-pathways is an important piece of the process. Testing and improving through iteration is a necessary step for this as well.

6. Once pathway components are finalized, it must be delivered in a format that is digitally discoverable and accessible to the learner.

To achieve such a process, tight coordination between all the players in the institutions and the ecosystem (employers, learners, K-12 school districts, chambers of commerce, unions, etc.) is more important now than ever before. Each player must be involved at every step of this process and must be willing to change the way in which they operate to achieve the overall goal.
Micro-pathways in Action: Easy to Navigate and Effective

If learners are to be at the center of this work, we need a more user-friendly and intuitive method of organizing and stacking options.

It is most important to have a kind of subway map to show consumers where they can go to hop on a reliable transport to marketable skills. We must also show the stops along the way, the transfer stations, the fastest route, a destination, and other places they might go if they change their mind along the journey. For a high school student, it is critical to be able to test different skill-building journeys, but to understand how they might link together into a degree.

As we speak, billions of dollars are being invested by companies hoping to win parts of the race, shifting us all toward a skills-based economy (e.g. Artificial intelligence, precision data skills assessment, virtual reality training environments) At the heart of this, the part providing navigation, relevance and motivation for the learner, will be that subway map of micro-pathways.

Below is an example of a micro-pathway at the Community College of Rhode Island for Advanced Manufacturing.

We’re working with community colleges, employers, and workers to build new earn-and-learn micro-pathways.

In collaboration with a national cohort of community colleges, employers and regional stakeholders, we’re working to co-create 18 employer-validated micro-pathways designed to connect low-wage and entry-level workers to in-demand jobs that pay at-or-above median wage and put them on a path toward a degree. Together these institutions, with support from the Education Design Lab, will produce new pathway models, new credential signal power for industry groups to rally around, as well as learnings and insights to enable adoption, replication, and scale by other learning providers and regions.