



Building Sector-Based Talent Pipelines:

A Case Study of Austin Community College's Strategy for Creating Economic Mobility in Manufacturing

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Executive Summary

This case study highlights Austin Community College's (ACC) efforts to build talent pipelines into the manufacturing sector, aligning programs both internally and externally to promote student economic mobility while meeting local industry demand. One unique feature of ACC is its focus on developing comprehensive pathways in the manufacturing sector rather than focusing exclusively on individual programs. We highlight ACC's efforts and successes in creating the conditions for programs that lead to advancement for their students, working in partnership with employers and workforce organizations and spanning silos internally by working across non-credit and credit sides and individual departments to facilitate student advancement. This study is based on a series of interviews with ACC leaders and external partners conducted in 2023 to understand how the college creates programs that have local labor market value, with a focus on students and workers of color.

ACC's strategies have particular relevance as community colleges across the country seek to expand their impact on economic mobility. Despite many initiatives aimed at strengthening employer engagement and pathway development for colleges, it is uncommon for program alignment and employer engagement work to coincide in practice. This case study demonstrates that the intentional integration of sector-based employer engagement and pathway design is necessary to ensure that programs create equitable economic mobility for graduates. Put another way, in order for colleges to truly serve as engines of economic mobility, they must simultaneously strengthen strategic employer partnerships and leverage partnerships to align programs internally, building sector-based talent pipelines that meet industry needs while facilitating student advancement in the targeted industry.

Background and Context

Community colleges are viewed as institutions uniquely positioned to expand economic mobility in the American workforce.¹ Fulfilling this potential will require colleges to make strategic shifts in how they operate. Internally, colleges face an imperative to bridge institutional silos across for-credit and non-credit programs as well as CTE and non-CTE programs to create seamless pathways across programs in a single sector, facilitating and supporting student advancement. Externally, colleges need robust and strategic employer partnerships to align with dynamic labor market needs.

This case study explores how Austin Community College (ACC) is adapting both internally and externally to promote economic mobility for its students using a sector-based approach. With a targeted focus on manufacturing, ACC is working to overcome internal silos across programs and forging stronger external partnerships with employers and intermediaries. In the process, ACC is confronting two long-standing challenges that community colleges face across the country: strategic employer engagement and internal alignment to bridge non-credit and credit program offerings at the college.

External Alignment: The Employer Engagement Challenge

Strategic employer engagement has been an ongoing challenge for community colleges. While program-level advisory boards offer opportunities for employers to shape individual programs, there are few mechanisms for groups of employers to shape the college's overall strategy for meeting industry needs, identifying gaps and developing collaborative strategies to align programs with industry demand, both current and future. Furthermore, advisory boards often struggle to engage a representative group of employers, leaving faculty to rely on input from a small sample of companies to shape programs.

Outside of advisory boards, most community college-employer partnerships are developed with single firms and organized around customized training strategies. This means that there are limited forums for colleges to engage employers *collectively*, understanding common needs and trends across companies that impact the sector as a whole. These insights are critical for colleges to make decisions about how best to maximize opportunities for economic mobility and advancement in the sector overall, not just within individual firms. They are also important to help colleges understand which jobs meet certain wage and benefit thresholds ("good jobs") in order to target programs to those jobs.

¹ Jaro, Jan. Federation of American Scientists. "Turning Community Colleges into Engines of Economic Mobility and Dynamism." <https://fas.org/publication/community-colleges-economic-mobility/>

Schwartz, Robert and Rachel Lipson. *America's Hidden Economic Engines: How Community Colleges Can Drive Shared Prosperity*.

Internal Alignment: The Challenge of Spanning Silos Within Colleges

For decades, community colleges have attempted to bring greater structure to career pathways to support student advancement. Siloed programs traditionally lead to course sequences that do not align to key competencies for relevant occupations. When implemented well, the Guided Pathways framework can address institutional silos that inhibit student completion and advancement, bridging for-credit and non-credit programs, as well as the CTE/non-CTE divide. In practice, however, colleges rarely connected Guided Pathways to employer engagement efforts, missing the opportunity to ground pathways in real labor market needs.

Austin Community College's Approach: Building a Manufacturing Talent Pipeline

In the manufacturing sector, ACC is working to align both externally and internally by intentionally linking sector-based employer engagement with internal efforts to design curriculum around in-demand competencies and align curriculum across programs. ACC leaders refer to this work as "talent pipeline development:" a set of proactive strategies designed to meet current and future needs of the manufacturing sector while maximizing student economic mobility. This is distinct from a more limited view of community colleges as participating in a "labor market exchange," where their primary role is simply to build skills and trust market forces to match workers and jobs.

This case study describes how ACC forged external partnerships and overcame internal program-level silos that can often serve as barriers for colleges looking to build industry-responsive programs and pathways.

External Alignment: Employer Engagement Strategies

In Austin, ACC has forged a close partnership with the Austin Regional Manufacturers Association (ARMA), Workforce Solutions, and other workforce partners to jointly engage manufacturers, understand their workforce needs and build responsive programs. As a regional industry association, ARMA has convening power to bring together a cross-section of manufacturers to work together in tackling shared issues, including talent. In this capacity, ARMA functions as a regional sector partnership for the Greater Austin metro area, convening employers to gain labor market insights and activate business leaders to partner in building a talent pipeline. According to Ed Latson, former CEO of ARMA, "Workforce has been some of the most meaningful work we've done. It's one of the most important things to our members; attracting talent is their number one priority."

In collaboration with industry leaders, Workforce Solutions, the City of Austin, ACC and other partners, ARMA has facilitated processes to clarify industry needs through surveys, focus groups, and industry-driven strategy sessions. This work has yielded insight into common workforce needs across manufacturing sub-sectors and has helped industry, education and training partners hone their strategy for meeting those needs, addressing gaps in skills as well as broader perception issues that prevent people from

pursuing careers in the industry. By aggregating the needs of industry, ARMA has been able to make the case for why new or different programs are needed. According to Latson, “The most fundamental thing was having a strong coalition of companies that agreed this was the right approach. I had a room of 40 people saying, ‘this sounds great, let’s try this.’ That got people’s attention. I had a group of 10 gorillas—the big companies that showed up every time. They gave institutions like ACC confidence that they could invest and there would be a real return.”

Just as ARMA has aggregated and synthesized industry needs across individual companies, ACC has responded to those needs with solutions that span multiple programs within the college. Garrett Groves, Vice Chancellor of Strategic Initiatives at ACC, has worked with ARMA and other workforce partners to identify where ACC can work collaboratively to meet industry needs, developing programs that play to ACC’s strengths while maximizing opportunities for students. According to Latson, “Garrett has been a great strategic partner for me. He has brought on the community college in an incredible way, bringing multiple spheres of the college together to create solutions.” Internally, ACC responded to industry needs by looking across the institution to identify potential solutions. According to Laura Marmolejo, Associated Dean of Advanced Manufacturing Programs, “We bucketed all the feedback we got, researched all the courses that existed, then thought of new ways to respond to industry needs. From there, companies blessed it. It was important to confirm that our approach had value from an industry perspective.”

In addition to ACC’s work with ARMA, ACC forges individual partnerships with large manufacturers such as Tesla, Samsung, Applied Materials and others to understand their needs and develop programs that prepare workers for entry and advancement into their companies. In addition to customized training programs, these partnerships yield insights that the college team then uses to shape decisions about pathway development, identifying ways to promote student and worker advancement both within and across firms. The employers that were interviewed commented on ACC’s flexibility and responsiveness in creating programs and partnerships. One manufacturer said, “ACC is pretty close to the ideal partner. They are very flexible. I have worked with other community colleges around the country and, relatively, ACC is very easy to work with, they think out of the box and they are flexible with our needs.”

Internal Alignment: Designing Programs and Pathways to Meet Labor Market Needs and Facilitate Student Advancement

Equipped with labor market intelligence from ARMA and partnerships with individual manufacturers, ACC holistically shapes its portfolio of manufacturing programs to meet current and future labor market needs while maximizing student economic mobility. According to Groves, “We listen closely to our company partners, and then we build customized training programs to fill gaps in their talent pipelines. Our work together can then grow from there.” This involves using labor market data and employer feedback to understand pathways to advancement within

the industry and targeting programs to entry points that are likely to lead to advancement.

The certified production technician (CPT) program, for example, emerged out of a common belief from multiple manufacturers that people working in the service or retail industries would be good candidates for manufacturing but they lacked an accessible entry-point into the industry. The 8-week CPT program was designed in response to this hypothesis and was intended to serve as a recruitment mechanism to bring people into the manufacturing sector who would otherwise struggle to gain a foothold. The CPT program plays a distinct role from some of ACC's longer-term certificate and degree programs that are more focused on specialized skill development. The college has designed the pathway to be stackable to facilitate student and worker advancement.

ACC leaders acknowledge that some elements of its talent pipeline are still aspirational. "There is a larger vision of a Certified Production Technician (CPT) to a BA pathway, but it is not yet in full operation," said Groves. Leaders also acknowledge that "stacking" (i.e. students returning to ACC for further education and training after completing one program) doesn't happen as much as they would like, even when programs are designed with stackability in mind. Nevertheless, ACC is committed to the vision of a seamless pipeline. According to Laura Marmolejo, who oversees manufacturing programs, "The goal is a program for every level that's needed. Entry, middle-, high-, technical and all the degree programs. We want to allow the student the ability to connect as needed to those programs without having to start over."

Key Enablers: Strategic Staffing & Data Systems

ACC's ability to bridge strategic employer engagement with internal pathways alignment in the manufacturing sector is a result of intentional staffing and infrastructure that allow the institution to take a holistic view of its programs and outcomes in manufacturing. It has created staff roles that have the skills and positional power within ACC to: 1) bridge the gap between employers and the college and create strategic partnerships; 2) translate occupational competencies into curriculum and programs that span silos within the college, and; 3) translate data and research insights into program design.

ACC has positioned key staff to link external employer engagement work with internal efforts to span silos and build responsive pathways. Garrett Groves, VP of Strategic Initiatives, describes his role as a bridge. "Part of my role is helping the college move quickly when working with employers. I'm tasked with supporting our program team and bringing additional resources or staff capacity when needed." Groves works closely with other college leaders to translate employer feedback and balance industry needs with student and worker interests, collaborating with the institutional research office to track outcomes and using that data to inform programmatic decisions.

Laura Marmolejo, Associate Dean of Advanced Manufacturing Programs, also plays a strategic role in designing ACC's manufacturing programs and pathways. She brings particular expertise in building seamless pathways that facilitate student advancement, bridging non-credit to credit bearing programs. Marmolejo

has worked on both the for-credit and non-credit sides of the college, experience that helps her bridge these often disconnected systems to ensure that non-credit courses 'articulate' towards credit-bearing certificates and degrees. For example, ACC is currently working to position manufacturing certificates as building blocks that lead to applied bachelor's degrees in engineering. This work has required curricular redesign so that all students regardless of their starting point begin with the core curricular competencies within manufacturing and can then continue with general education courses if they decide to earn an associate's or a bachelor's degree. Front-loading technical manufacturing courses allows students to be exposed to the technical courses needed for an associate degree and/or bachelor's degree regardless of where they start and ensures students do not 'waste' credits if they decide to leave after earning a certificate.

These internal efforts to build pathways are integrated with ACC's employer partnerships. ACC leverages its employer partnerships to integrate apprenticeship and other work-based learning opportunities into pathways and works with employers to ensure programs are accessible and relevant for workers looking to upskill.

Data system development and strategic institutional research staffing have also been key to ACC's success. Beyond producing required reports on outcomes, the ACC research office tracks earnings of students enrolled in all credit and non-credit programs across the college. This data is then used to shape decisions about programs by using student-level earnings data to inform the college about each program's success and the

degree to which students take advantage of stackable pathways, as well as identifying gaps in programs and pathways. This information also helps the college make decisions about which employers to prioritize for focused partnership based on labor market outcomes.

Conclusion

ACC's ability to work across program siloes and partner strategically with regional employers provides insights into what it takes to holistically meet the needs of a critical industry sector. By forging strategic partnerships with employers through relationships with key external organizations and with individual firms, ACC has an ongoing mechanism for understanding current and future needs of the manufacturing sector. It then translates these insights into decisions about what programs to offer to maximize student economic mobility with intentional design and proactive planning. ACC works across programs to identify gaps, design course sequencing, and define unique roles of various programs in meeting industry needs, working in partnership with employers. Both elements—strategic external partnerships and responsive internal design—are necessary to build true talent pipelines that both meet industry demand and promote economic mobility for students and workers.

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