

Pathways to Opportunity: Alignment between University of the District of Columbia Programming and Labor Market Demand

Introduction

The University of the District of Columbia (UDC) plays a critical role in the economic vitality of the region and provides pathways to opportunity for DC residents as the only public university in the District of Columbia and as a historically Black university. The university offers programs that support students along the educational continuum including non-credit workforce certificate programs, associate's, bachelor's, master's, and professional degrees. In particular, UDC helps to build pathways for students from DC's public school system as a local and affordable option for students. According to UDC's Spring 2024 Fact Sheet, more than 25% of UDC students were awarded Pell grants.¹

Within UDC's 2024-2029 strategic plan, the university focuses on "delivering on the promise of becoming the District's workforce and economic mobility engine."² In order to achieve this goal, the university needs to place continued focus on alignment between UDC's degree programs and the high-paying, high-opportunity jobs available in the region.³ This alignment is essential for ensuring that graduates are well-prepared to succeed in the local labor market and contribute to the region's economic growth.

The Office of Education Through Employment Pathways (ETEP) is focused on providing program providers, policymakers, community stakeholders, and researchers with actionable, trusted insights to inform the District's education and workforce systems. In particular, ETEP is focused on sharing information about how current education and workforce opportunities impact economic mobility and how education offerings align with labor market demand to guide decision-making and disrupt patterns of inequity.

Toward this goal, ETEP has defined a research agenda with key areas of focus to inform the District's policy, program, and investments. The research agenda includes the following question: "Which postsecondary degree-granting programs and workforce training programs are most associated with: full-time employment among graduates; highest salaries among graduates; economic mobility and wealth attainment among graduates?"⁴

In support of this research question, this research brief will focus on two primary areas:

1. To what extent are UDC program offerings and enrollment trends associated with high-wage, high-demand jobs in the region?
2. What are the areas where DC anticipates significant labor market demand and UDC does not currently offer programming?

¹ University of the District of Columbia Spring 2024 Fact Sheet, [factsheet_spring2024.pdf](#).

² UDC strategic plan, <https://docs.udc.edu/president/udc-strategic-plan-2024-2029.pdf>.

³ GREGOR AISCH, L. B. (2017, January 18). *Economic diversity and student outcomes at University of the District of Columbia*. The New York Times. <https://www.nytimes.com/interactive/projects/college-mobility/university-of-the-district-of-columbia>

⁴ Education Through Employment Data System Research Agenda, <https://dme.dc.gov/etep>

Methodology

In order to understand job prospects for UDC students, this analysis brings together information on annual job openings in the District of Columbia along with UDC fall 2023 enrollment. This analysis leverages labor market projections data for the District of Columbia from the DC Department of Employment Services.⁵ The wage data depicted in this analysis represents annual earnings data for the District of Columbia Metropolitan Statistical Area from the U.S. Bureau of Labor Statistics.⁶ Programs are coded based on whether graduates in that program of study pursue occupations that pay a median wage of \$56,000, which is the living wage for a DC resident with no dependents according to the MIT Living Wage calculator.⁷

For the purposes of this analysis, we anticipate the optimal relationship between enrollment and labor market demand is 20 to 50 job openings per enrolled student. This relies on assumptions that UDC is one of many institutions of higher education that is developing talent within the Washington, DC region, that all students who are enrolled will not graduate within a given year, and that programs will see some attrition between enrollment and graduation rates. This relationship, however, is not absolute as some program areas see demand that

MAPPING PROGRAMS TO OCCUPATIONS

To determine alignment between educational background and employment, this analysis builds on the Regional Education Laboratory Mid-Atlantic report, [“Aligning the University of the District of Columbia’s program offerings with data on the local job market.”](#) The report uses the 2018-2022 U.S. Census Bureau American Community Survey (ACS) to determine the top occupations pursued by graduates of a given program of study. Because this is based in real-life decision-making, we can see the occupations that graduates elect to pursue rather than a theoretical analysis of what jobs could be an appropriate next step. For example, ACS shows that graduates with an associate’s degree in nursing predominantly pursue careers in healthcare such as nursing assistant, registered nurse, or medical assistant. However, those with an associate’s degree in construction management pursue a occupations ranging from first-line supervisors of construction trades to truck drivers. Within the report and this brief, the median wages reflect wages for the top occupations that graduates with the degree pursue, including those not tightly aligned with the program of study. For example, a first-line supervisor of construction trades has a median salary of \$89,552, but because that is only one of the associated occupations, the median wage for graduates with a construction management associate’s degree is significantly lower. For a full explanation of the methodology, please reference the [Regional Education Laboratory Mid-Atlantic report](#).

⁵ District of Columbia Long-Term Industry and Occupational Projections, *DC Department of Employment Services*, <https://does.dc.gov/publication/district-columbia-long-term-industry-and-occupational-projections#:~:text=DC%20Occupations%20with%20Most%20Job%20Openings%202016-2026.%20DC%20Long-term-long-term-industry-and-occupational-projections#:~:text=DC%20Occupations%20with%20Most%20Job%20Openings%202016-2026.%20DC%20Long-term>

⁶ Occupational Employment and Wage Statistics, *U.S. Bureau of Labor Statistics*, https://www.bls.gov/oes/2023/may/oes_47900.htm

⁷ MIT Living Wage Calculator, <https://livingwage.mit.edu/metros/47900>.

outpaces UDC enrollment by more than 1,000 annual openings, indicating that there is still room for significant enrollment growth to meet the regional demand for talent.

Key insights on associate's degree programs

- There is significant room to increase enrollment in UDC associate's degree programs to meet local labor market demand. For 10 programs, there are 1,000+ more annual job openings than there are students enrolled in the associated UDC program.
- Only one of 22 programs is overproducing talent for the local labor market.
- Less than 25% of current associate's degree programs lead to living wage jobs in the region.
- Less than 20% of current associate's degree students are enrolled in programs that lead to living wage jobs in the region.
- Specifically, UDC has an opportunity to expand enrollment in current programs focused on computer science, information technology, and aviation technology programs – all of which lead to jobs that are both high-demand and high-wage.
- There is an opportunity for the university to focus its efforts specifically on associate's programs that directly lead to living wage jobs, are grounded in strong employer relationships with employer commitments to paying a living wage, and associate's degree programs that have clear pathways to future bachelor's degree attainment. This could be accomplished through expanded partnerships, articulation agreements, or programmatic shifts.

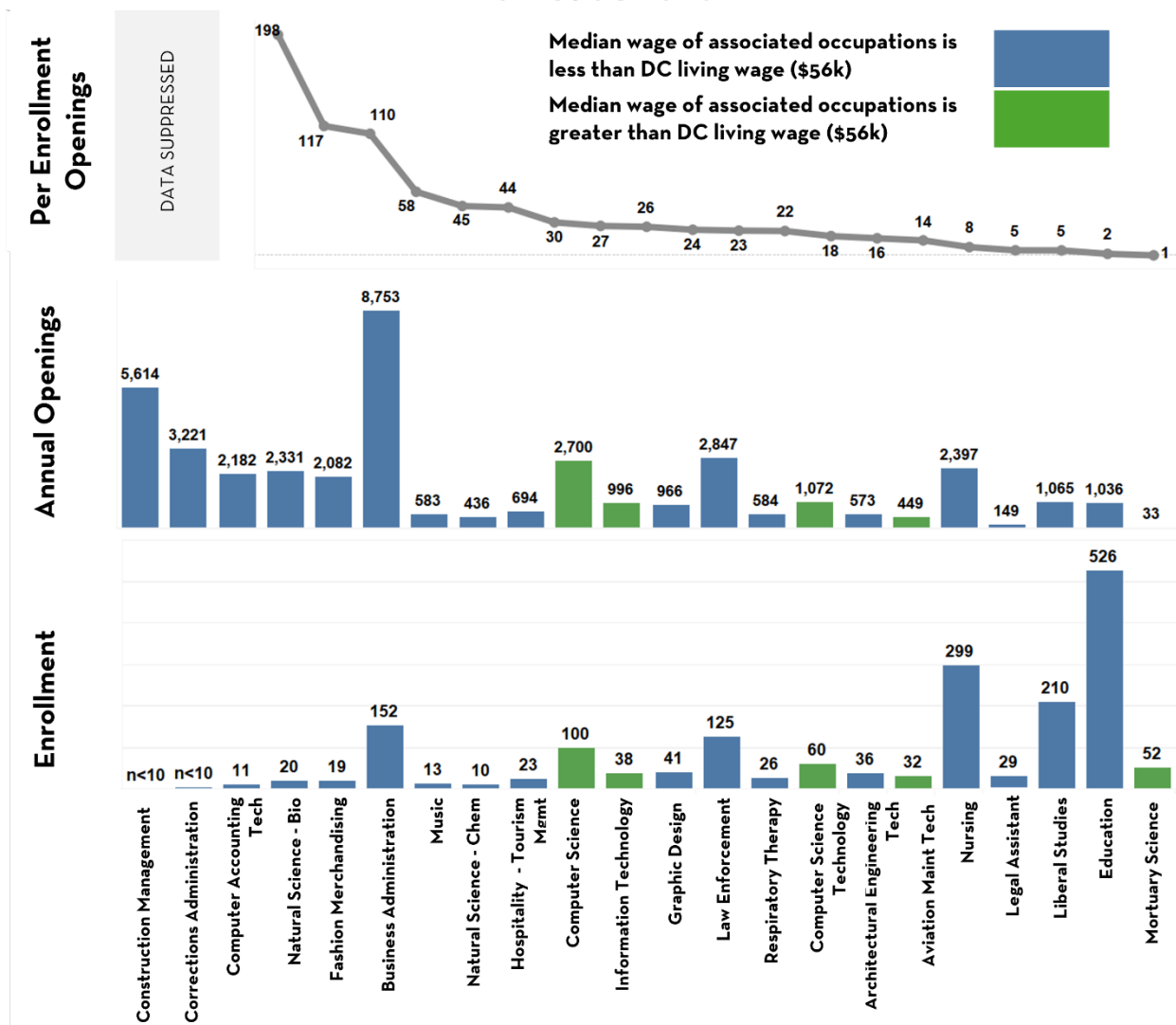
Key insights on bachelor's degree programs

- The majority of UDC bachelor's degree programs lead to a living wage, as 26 out of 32 programs lead to occupations with a median salary over \$56,000.
- More than 80% of UDC bachelor's degree students are enrolled in programs that lead to living wage jobs in the region.
- UDC bachelor's degree programs similarly have opportunities to expand enrollment in order to meet local labor market demand. In 10 current programs, there are 1,000+ more annual job openings than there are students enrolled in the associated UDC program.
- Marketing, communications, and aerospace engineering stand out as areas for potential new program offerings given projected labor market demand and the university's existing associated programming.

Analysis of UDC program offerings

Figure 1

Relationship between UDC's Associate's degree programs and labor market demand



Source: DC DOES and BLS Occupational Employment Projection data; BLS Occupational Employment and Wage Statistics survey data; Census ACS data; UDC program data.

Figure 1 examines UDC associate's degree offerings and the median wage and annual openings for occupations that graduates of that program of study pursue. By comparing UDC enrollment with the number of annual openings in associated occupations, we have

determined the number of open associated positions for every enrolled UDC student in a given program of study.

Looking at UDC program offerings, 17 of the 22 associate's degree programs do not lead to associated occupations with a median salary of \$56,000, which is the living wage for one adult with no dependents living in the District.⁷ This finding indicates that while there is demand for these positions, the programs are less likely to put residents on a path to earn a living wage. This finding is consistent with DC's overall labor market outcomes for associate's degree holders as median earnings are nearly \$54,000 for those with some college or associate's degree in the region compared to nearly \$89,000 for those with a bachelor's degree.⁸

While many associate's degree programs are associated with occupations with lower wages, many programs see consistent demand for graduates' skills. More than half of programs have 20+ annual job openings for every UDC student enrolled in a related program. For multiple programs, the number of job openings exceeds the annual enrollment by 1,000 or more. Mortuary sciences is the only program where current enrollment exceeds annual openings in the region.

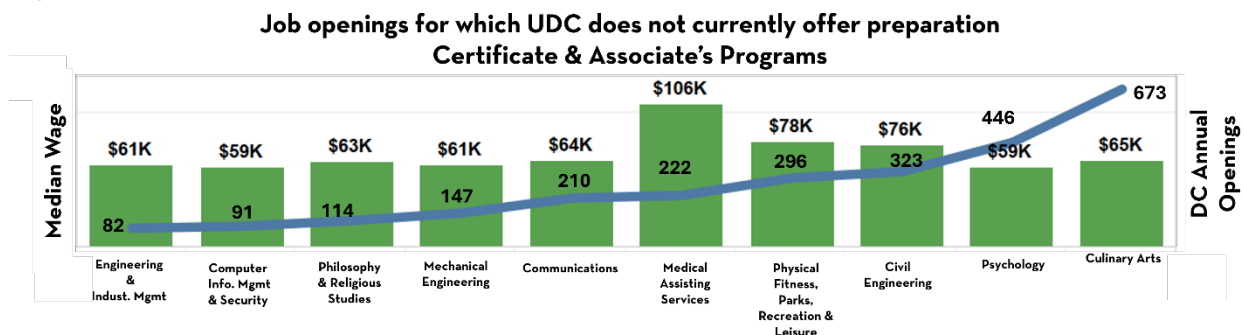
The largest gaps between current associated job openings and UDC program enrollment are within business administration, construction management, corrections administration, computer science, and law enforcement. All of these programs have at least 2,500 more related annual openings than students currently enrolled. This significant gap indicates there may be an opportunity for UDC to expand its influence as a local talent developer in these high-demand areas.

In addition, education and nursing associate's degree programs see both high program enrollment numbers and high demand for labor. In education, the strong enrollment is likely driven by DC's [early childhood workforce requirements](#), and related supports for early childhood educators earning an associate's degree.

There are several associate's programs that see both significant labor market demand and that lead to higher salaries. The programs focused on computer science, IT and aviation maintenance technology lead to jobs with a median salary of between \$57,000 and \$61,000. These programs are also associated with areas of labor market demand with annual openings ranging from 440 to 2,700. Expansion of the number of seats in IT and computer science programs would also align with technology being identified as a target sector within the [Comeback Plan](#), which is the District's 2023-2027 economic development strategy.

⁸ American Community Survey 2023, Washington-Arlington-Alexandria region, *U.S. Census Bureau*, <https://data.census.gov/table?t=Educational%20Attainment&g=310XX00US47900>

Figure 2



Source: DC DOES and BLS Occupational Employment Projection data; BLS Occupational Employment and Wage Statistics survey data; Census ACS data; UDC program data.

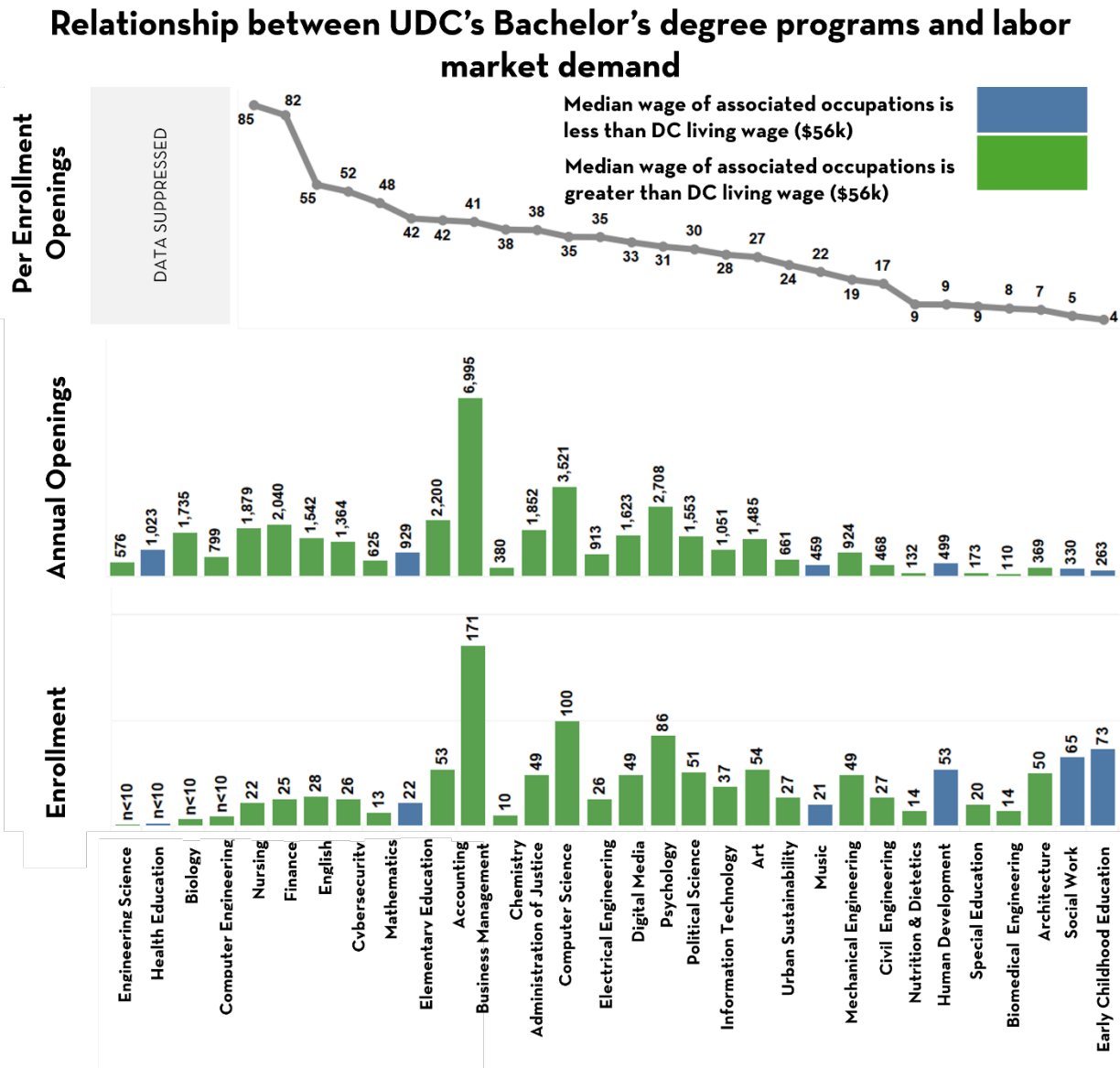
As UDC considers how to meet the demands of an evolving labor market, Figure 2 highlights associate's degree education programs that are not currently offered by UDC, that meet the minimum bar of an annual salary of at least \$56,000 for associated occupations, and that have at least 75 annual job openings for related occupations in the region. The bar graph indicates median salaries for associated occupations, while the blue line indicates the number of annual openings in occupations associated with each program.

Given that 75% of UDC associate's degree programs are associated with occupations that do not pay a living wage in DC, shifting programming in these areas could lead to higher salaries for UDC graduates. At the same time, these programs have somewhat limited labor market demand with only psychology and culinary arts having more than 400 annual job openings.

As UDC considers a path forward, there is an opportunity to focus specifically on associate's programs that lead to living wage jobs directly, are grounded in strong employer partnerships with employer commitments to living wages, or programs that have clear pathways to future bachelor's degree attainment at UDC or in the region. This structure would allow residents to earn an accessible associate's degree as the first step in their journey, and then to continue making progress on the path to economic mobility through future education and workforce experience.

To broaden access to associate's degree programs and build pathways to aligned bachelor's degree programs, UDC has an opportunity to consider partnerships and articulation agreements with local and regional universities that may have program offerings in areas where UDC is seeking to expand or build pathways. UDC could also explore streamlining pathways between associate's and bachelor's degrees through multiple strategies including articulation agreements or offering bachelor's degrees in applied sciences that would allow students to continue on to earn a bachelor's degree after earning a UDC associate's in applied sciences, including aviation maintenance technology and law enforcement, among others.

Figure 3



Source: DC DOES and BLS Occupational Employment Projection data; BLS Occupational Employment and Wage Statistics survey data; Census ACS data; UDC program data.

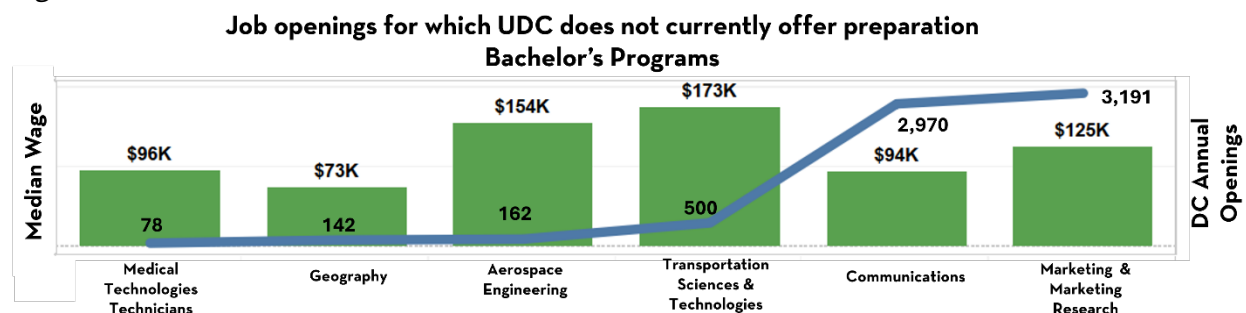
In a similar way to Figure 1, Figure 3 depicts UDC bachelor's degree programs in comparison to regional labor market demand. The programs are similarly color coded to denote whether occupations that graduates of that program of study most often pursue offer a median wage of at least \$56,000.

Focusing on bachelor's degree programs, this higher level of education unsurprisingly leads to overall stronger wages as 26 out of 32 programs are associated with occupations with a

median salary over \$56,000. Those with lower median salaries represent critical areas of demand in the region, including education and social work.

Overall, the programs with the highest enrollment see similarly strong labor market demand, including business management, computer science, and psychology. Similar to the associate's degree programs, there are multiple areas where there is an opportunity to expand enrollment to meet labor market demand. More than 10 programs have at least 1,000 more annual openings than there are currently enrolled students including accounting, biology, cybersecurity, digital media, finance, and nursing.

Figure 4



Source: DC DOES and BLS Occupational Employment Projection data; BLS Occupational Employment and Wage Statistics survey data; Census ACS data; UDC program data.

Similar to Figure 2, Figure 4 highlights education programs that are not currently offered by UDC and that have an annual salary of at least \$56,000 and at least 75 annual openings in the region. The bar graph indicates median salaries, while the blue line indicates the number of annual openings in occupations associated with each program.

In evaluating programs for future growth, UDC can consider both regional labor market demand as well as relative advantage to peer institutions. For example, UDC already has an established aviation program, and so the addition of a transportation sciences and technology program focused on training aircraft pilots and flight engineers, or an aerospace engineering program, could serve as an extension of that area of focus. Given UDC's unique offerings along the education degree continuum, UDC also has an opportunity to focus on high-demand stackable programs, such as communications, which see strong labor market demand at both the associate's and bachelor's degree levels. A focus on communications would also align with the District's target sectors as identified in the [Comeback Plan](#). Toward the goal of broadening access, UDC also has an opportunity to consider partnerships with local and regional universities that may have program offerings in areas UDC is seeking to expand, particularly in program areas that are resource intensive.

Next Steps

As UDC implements its new strategic plan, there is an opportunity to leverage these findings to inform areas of priority for the university and to ensure that UDC serves as a top talent developer in the region.

The Office of Education Through Employment Pathways (ETEP) will continue to serve as a source for trusted insights to inform policy and practice across the education and workforce systems. In 2025, ETEP will build on this research brief and publish employment and wage outcomes specific to UDC graduates. By producing analysis focused specifically on outcomes for past UDC graduates, ETEP will provide additional insights on how these programs translate into financial success for UDC students. As future data on graduate earnings becomes available, it can further guide UDC's strategy in aligning educational offerings with both student aspirations and market demand.

Acknowledgements

This analysis would not have been possible without the partnership of the Mid-Atlantic Regional Educational Laboratory, which provided key foundational analysis on mapping UDC programs to labor market demand.



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