

How one HBCU increased retention and graduation rates with YouScience®



Impact at a glance:

- **Retention rates for fall 2022 were 30%**—a 15% increase from fall 2019.
- **Graduation rates in 2021 increased 60%** from 2018.
- **Placement rates rose to a historically high level of nearly 94%** in 2021 from 76% in 2018.

Located in Bamberg County, in rural South Carolina, Denmark Technical College opened its doors to students in 1948. Today, it provides affordable postsecondary education to students from diverse educational and socioeconomic backgrounds. It's also one of only 11 two-year Historically Black Colleges and Universities in the United States.

In 2019, DTC was slated for closure, prompting a local newspaper to write, "Hanging in the balance is not just the state's only historically black technical college, but also a primary economic engine in a particularly vulnerable part of the state."

Yet just three years later, DTC has seen improvement in three critical areas: retention, graduation, and job placement. Retention rates for fall 2022 were 30%—a 15% increase from fall 2019. Graduation rates in 2021

increased 60% from 2018, and placement rates rose to an historically high level of nearly 94% in 2021 from 76% in 2018.

How did they do it? Denmark Technical College leaders collaborated to develop an intentional, strategic implementation plan known as Panther Pathways. The guided program personalizes the student experience and empowers first-year students to develop educational plans that help them meet their career goals. Students start down the pathways as soon as an application is submitted by participating in an innovative guidance platform: YouScience® Discovery.

More than an aptitude test

YouScience Discovery is more than an interest-based test, it measures both aptitudes and interests to produce scientifically-backed results. We've all taken the free interest-based online tests designed to be completed quickly and tell us if we should be a rocket scientist or an opera singer. YouScience is different.

Based on time-tested aptitude assessments, this guidance platform relies on data and AI to help identify aptitudes, validate one's strengths, and match those outcomes with educational and career pathways.

The Panther Pathways

Dr. Willie L. Todd, Jr., president and CEO, and Dr. A. Clifton Myles, executive VP for administration and innovation, and CSO, joined DTC in 2020. They brought a vision for a bright future where DTC, its students, and its community would thrive. Their mission: to change the way the college prepares students for the future.

To accomplish their mission, they needed a new approach. They needed to intentionally connect students to a broader range of career opportunities and the educational paths to get there.

Myles based this new strategy, in part, on Discovery from YouScience. Having used YouScience in the past, he set out to incorporate it into an approach that DTC could use. To get there, he enlisted Leslie Holman-Brooks, program director for DTC's Department of Career and Student Success.

"As you enter college," Holman-Brooks said, "one thing you do know is that it's costly. So, if we can put measures in place that will potentially cut down on changing majors and extending graduation dates, that is great."

“We wanted to make sure that the students had a program major that solidified their skill set. We didn't want students to be moving from program major to program major. We knew that in hindsight, it would impact them financially.”

— Leslie Holman-Brooks, Program Director,
Department of Career and Student Success,
Denmark Technical College

That's important because roughly 80% of college students change majors at least once.¹ By taking YouScience Discovery and developing their Panther Pathways, students can:

- Pick their first courses based on their aptitudes.
- Explore career options and majors.
- Outline their education path, which may include industry-recognized certifications, if applicable, through Precision Exams by YouScience.
- Prepare for specific jobs.

Students work with advisors in their introductory course to review Discovery results and create a portfolio to use throughout their college experience.

Faculty and staff can work closely with the student to map out a course not just during college, but after. This long-term path is called the perpetual pathway.

Removing more barriers

Myles' vision for the students at Denmark Tech was to "create a way to remove the barriers" that so many students faced. He wanted to help students discover their strengths and find their callings in life. "The goal was to create an approach that would facilitate a process to eradicate those barriers and help them realize their true sense of being and what they could accomplish in this world," Dr. Myles said.

Myles first used YouScience working in a high school in Decatur, Georgia. "When I implemented YouScience, I recognized that we had something that was so different from what we had been doing with aptitude tests and IQ and career assessments. We were now having real data conversations with students and giving them tools that would help them transfer the knowledge about themselves to the career they wanted to make.

"Not only did we give them that gateway to success, but we also helped them to really understand it's not about just taking the assessment, it's about the crosswalk."



Certifications and college

A study by the Thomas B. Fordham Institute on career and technical education (CTE) courses and how they impact student outcomes found that, “students with greater exposure to CTE are more likely to graduate from high school, enroll in a two-year college, be employed, and earn higher wages.”² The same study found that the graduation rate for students focusing on CTE courses was 13 percent higher than the national average.

And the outcome isn’t just true for high school students, it applies to students throughout their education. CTE courses help answer the question of “Why am I learning this?” They equip students with skills that can be used in real-world applications. When students have the option to earn an industry-recognized certification that can land them a job, their motivation to learn increases.

Offering certifications based on industry standards and requirements helps Myles and DTC give students a competitive advantage. He likes offering his students an aptitude assessment to help identify careers and the certifications to get jobs that use them.

When a student’s YouScience Discovery results point them to a career path where certifications are required or offer a competitive advantage, educators can use YouScience Industry Certifications to certify students.

YouScience offers industry-recognized certifications and exam standards within the 16 National Career Clusters and 21st Century Skills. Standards can be used to guide teacher curriculums. Exams can be used as stackable, end-of-course, or end-of-program evaluation outcomes. And, reports let teachers evaluate growth, promote program improvement, and review data needed to meet Perkins, state, and federal requirements.

Bringing business back to Denmark

Denmark Technical College serves a rural community in what South Carolina considers a vulnerable area, according to The State, a South Carolina newspaper.

This vulnerability arises from the trend for high school graduates to leave Bamberg County to find careers in more urban settings, leading to a decrease in population. That contributes to local employers shutting down or moving to more populous areas. When companies leave an area, it can devastate a community and its economy. The State also reported that one employer’s relocation cost Bamberg County 110 jobs. That’s a significant loss in a county of 14,275 people with a median household income of \$31,422.³

“We’re really working more intentionally to partner with industry so that they can see we’re going to have the graduates here. What we need is an opportunity to get industry here.”

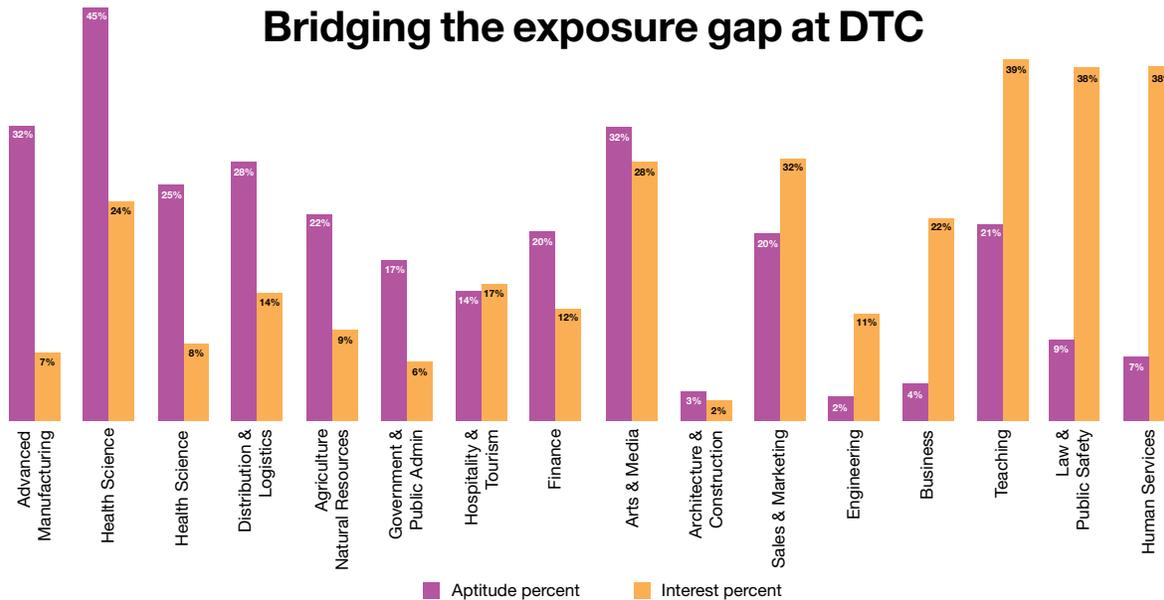
— Dr. Willie L. Todd, Jr., President and CEO,
Denmark Technical College.

Compounding an already fragile ecosystem, rural and ethnic communities were especially hard hit by COVID. Community college enrollments for Black men fell 20%,⁴ and The National College Attainment Network reported that “the number of rural students filling out the federal application for financial aid, a sign of whether they’re even considering going to college, plummeted more than 18%.⁵

Enrollment isn’t the only challenge for rural communities. According to the National Career Development Association, “Some rural communities have little exposure to the breadth of jobs available in the region. On the other hand, some communities worry the students will see colleges as the only way to ‘get out,’ therefore not returning to the community after graduation...furthering population decline.”⁶

DTC’s work has the potential to bring companies back to Bamberg County. As Panther Pathways and YouScience deliver career paths and skilled prospective employees, YouScience Employer Spotlight makes it easy for companies to connect with future employees.

Bridging the exposure gap at DTC



Note: This chart examines the differences between student aptitude measurements from the YouScience Discovery assessment and self-reported interests. Data is from the academic year 2021-2022.

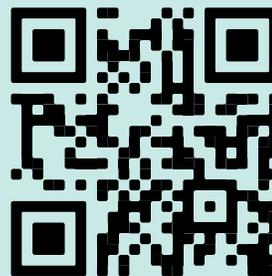
Using the YouScience Employer Spotlight portal, companies can appear in the YouScience opportunities section of Discovery. Companies can share the skills they need from students who are prospective employees; post jobs, internships, or apprenticeships; and create a company profile to make it easy for students to get to know the company.

Students then use YouScience Education & Career Plan to research prospective employers and find careers based on their aptitudes, education, and certifications.

“YouScience is such an easy fit for us,” Myers said. “When we picked up the certification piece, to know we could have every student on campus in every program be assessed as to whether or not they’re connected to industry standards, not only improves the opportunity for the student, but it improves the opportunity for our faculty to ensure that our students are mastering the skills that are necessary for them to be efficient.”

Perhaps more importantly for the students and community DTC serves, its implementation of Discovery has helped them expose more students to potential careers. When examining the aggregate results from Discovery, DTC saw an average gap of 73 percent between students’ aptitudes and their career interests. In other words, DTC students have the aptitude for a broader range of careers than they were aware of before Discovery. This impact on the “exposure gap” could make all the difference for the future of Bamberg County and all its residents.

To learn more about how YouScience can help your program, schedule a demo at youscience.com/demo-request/



or contact our sales team at sales@youscience.com.

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- 2 Thomas B. Fordham Institute, Career and Technical Education in High School: Does It Improve Student Outcomes?, Apr. 7, 2016, <https://fordhaminstitute.org/national/research/career-and-technical-education-high-school-does-it-improve-student-outcomes>
- 3 The State, Threatened HBCU Denmark Tech brings jobs and money to one of the poorest parts of SC, Oct. 17, 2019, www.thestate.com/news/local/education/article236195383.html
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- 5 The Hechinger Report, Number of rural students planning on going to college plummets, Dec. 18, 2020, <https://hechingerreport.org/number-of-rural-students-planning-on-going-to-college-plummets/>
- 6 Career Convergence Web Magazine, Occupational Exposure for Students in Rural and Isolated Communities, Feb. 1, 2015, https://ncda.org/aws/NCDA/pt/sd/news_article/102067/_PARENT/CC_layout_details/false