INTERNATIONAL EDUCATION LEADERSHIP

By Timothy Renick

Closing the Achievement Gap With Technology

WHEN BILL GATES VISITED GEORGIA STATE UNIVERSITY IN 2017, he did not meet our president or provost. There was no pomp and circumstance, no ceremony. This was a business trip.

Bill Gates came to our campus in Atlanta to learn about how Georgia State is leveraging data and technology to deliver personalized support to more than 52,000 students every day. He wanted to understand how we raised the graduation rate by 22 percent and how we eliminated achievement gaps between students from different racial, ethnic, and income backgrounds. Gates spent the afternoon meeting with a few of us on the student success team, asking probing questions and, most particularly, learning from our students.

Front and center was Fortune Onwuzuluike, a first-generation student whose family is from West Africa. Fortune had just completed his senior year at Georgia State, graduating in four years with honors and serving as student body president. His leadership training paid off that afternoon:

Fortune led the charge in persuading our somewhat camera-shy guest to pose for the requisite selfie.

A few years ago, it would have been inconceivable that Bill Gates—or anyone else, for that matter—would invite himself to our campus to learn from what we are doing to support students. When I became director of Georgia State's student success programs 10 years ago, our graduation rates were far too low, and there were significant achievement gaps between students based on race, ethnicity, and income level.

Our freshman class this year has students born in 114 nations, and more than 5,100 of our undergraduates were born outside the United States. Thousands of our students—including the majority of our international students—are the first in their families to attend college. For the most part, our international students are not

Fortune Onwuzuluike captured Bill Gates's visit to the Georgia State campus with a selfie featuring fellow students Austin Birchell, Gabriella Salinas, and Kalif Robinson.
the sons and daughters of well-to-do professionals. They are the children of working-class immigrants who have recently settled in metro Atlanta. Our student body is among the most diverse in the nation—and one of the most economically challenged.

To increase graduation rates, we knew we had to provide students with far more personalized assistance. We needed to give them individualized academic advice, identify when they were struggling in their courses and offer timely support, and help them navigate the confusing processes and arcane bureaucracies that typify American universities.

In recent years, Georgia State—along with a handful of other large public universities, including our University Innovation Alliance partners—has worked to deliver a new model of post-secondary education that is both highly personalized and offered at scale. What is emerging is exciting.

At Georgia State, for instance, we conducted an assessment of the academic advising on our campus in 2010. The results were sobering. With tens of thousands of high-need students, advisers were overwhelmed. Their workdays were filled purely by meeting with students who came to them. This does not sound like a bad thing: help the students who take the initiative to seek help.

But students who are low-income, first-generation, and non-native speakers of English often lack the context to self-diagnose when they are struggling. Since no one at the university was watching, thousands of students were failing courses and dropping out before anyone reached out to help. We not only knew that we had to do better, but that we had to do something fundamentally different. We collaborated with the Education Advisory Board to do just that. Using 10 years of data—2 million grades and 140,000 student records—we identified academic behaviors that correlated to students struggling in the past. For instance, we found that political science majors who earn an A or B in their first political science course go on to graduate on time at a 75 percent rate. Political science majors who get a C in their first course graduate at only a 25 percent rate. Yet, for years, we had been doing nothing with the C student but passing him or her on to upper-level work in the field, where the weakness evidenced in that first C grade would become exacerbated, and the C grade would likely become Ds and Fs. We asked a simple question: What would happen if we intervened when the problem first surfaced rather than after it had spread? How many more students could we help to graduate?

The result was an innovative, data-based, and proactive approach to advising that we call the Success Academy. Today, electronic systems at Georgia State review every student every day for more than 800 different risk factors. Did a student register for the wrong course? Did they fail the first quiz of the semester? Did they receive a poor final grade in a prerequisite course? When an alert goes off, an adviser reaches out to the student, typically within 48 hours. Over the past year, we have had more than 52,000 such meetings between academic advisers and students. The result? We are graduating 2,800 more students annually than we were six years ago, and students are completing their requirements more quickly, saving them thousands of dollars in tuition and fees.

Georgia State has used this same high tech/high touch approach in half a dozen other new student success initiatives. For example:

- Adaptive learning technologies in all introductory math courses that caused failure rates to drop by 35 percent.
- Chat-bots—automatic texting platforms enhanced by artificial intelligence—answer students’ questions 24 hours a day, which helped us reduce by 20 percent the number of admitted low-income students who failed to enroll.
- Academic analytics identify students at risk of dropping out even before they enroll, improving retention rates by 37 percent.

Why are these innovations so important, not just to Georgia State but to higher education? They are transformative. Graduation rates have more than doubled for our students from backgrounds that once struggled the most. For the past three years, our African American, Hispanic, low-income, first-generation, and international students—including those who are non-native speakers of English—have all graduated at or above the overall student body rate. There are no achievement gaps.

Fortune Onwuzururiwa was part of our first cohort of Success Academy students five years ago. He took his introductory math course using adaptive platforms, was tracked daily throughout his time at Georgia State for 800 risk factors, and received proactive outreach when issues were first identified.

While I don’t know for sure whether Fortune is among the thousands of Georgia State students for whom these programs made the difference between dropping out and successfully completing a college degree, I do know that the world would be a much poorer place if Fortune had not made it to the room last summer, with college degree in hand, to take a selfie with Bill Gates.