

# Building Institutional Capacity to Use Data for Student Success

## INSTITUTIONAL CONTEXT

Increased calls for accountability and transparency at the state and federal levels, in addition to professional best practices, are informing the way Miami Dade College (MDC), the nation's largest community college, is evolving its data culture. Specifically, the Florida legislature recently passed a law that funds the state's community colleges based on their performance on four metrics: 1) completion rates, 2) retention rates, 3) job placement or continuing education rates, and 4) the wages of graduates in their first job post-graduation. Similarly, the U.S. Department of Education recently released more data on student success and institutional performance through its College Scorecard. Finally, the Association for Institutional Research recently published a *Statement of Aspirational Practice for Institutional Research*, which provides support for an intentional focus on increasing the ability to produce and use data.

Guided by a new strategic plan for 2015–2020, and in response to these growing demands for more sophisticated, timely, and actionable data, MDC launched a strategic set of activities designed to increase its ability to produce and use data to improve student success and institutional effectiveness:

- Focus on key performance indicators such as enrollment and completion;
- Track groups of students who start at the college at the same time over the course of their studies;
- Create data models based on past student performance to predict success for current and future students;

- Build internal capacity to evaluate the impacts of implemented interventions; and
- Increase the comfort and ability of faculty and staff to work with data.

## USING DATA TO IMPROVE STUDENT OUTCOMES

MDC leadership closely monitors select key performance indicators (KPIs) that provide a snapshot of its institutional performance. Informed by accountability and transparency initiatives such as Florida's performance funding model and the U.S. Department of Education's College Scorecard, the KPIs include but are not limited to metrics such as the number of students enrolled and the number of credits in which they enroll; the rate at which students re-enroll from one semester to the next; the rate at which students complete their studies; the rate at which students continue their education at another institution whether or not they complete their studies; the rate at which students who complete their studies are employed; and the entry-level wages of students who complete their studies. KPIs allow MDC to gauge progress on high-risk and high-profile metrics, on a semester-by-semester and annual basis. Since data for some of these metrics are available for other colleges and universities through state and federal sources, they are also able to benchmark their performance against other institutions.

While KPIs provide an appropriately high-level view of institutional performance, MDC sees value in producing more granular data and analyses that can be used to improve specific policies, programs, and practices. One way to

do that is to track the progress of groups of students over time. First, MDC establishes cohorts of students who begin studies in the same semester. If necessary, they establish subgroups within each cohort, such as students who attend full time or enroll directly after finishing high school. At the end of every semester, they determine the status of each student in the cohort—if they enrolled, graduated, or did not enroll. MDC tracks the status of each student in the cohort, every semester, for eight years. This approach allows them to identify when a student discontinues enrollment. By using different variables within a cohort, like program of study, GPA, or high school, MDC can develop and apply more targeted interventions to help students succeed. For example, they can use the insights gained from the data to identify the highest-risk courses in a program of study and offer extra supports, like tutoring or group projects for students enrolled in those courses. This approach also aligns with cohort-tracking models used by federal, state, and voluntary accountability efforts.

MDC is also creating data models using the performance of past students to help mitigate risk—and predict success—for current and future students. By tracking the progress of students over time, they can identify those who did not persist from one semester to the next, construct a profile of those students, and determine whether there are common characteristics or behaviors among them. They can then determine the likelihood that other students who share the same characteristics or behaviors will not persist and complete. This student-level data helps faculty, academic advisors, and academic program managers work with students sooner by prioritizing interventions and focusing on the highest-risk students.

## RESULTS

Steps MDC has taken to build institutional capacity to use data for student success have led to promising improvements in practice, including:

- Increased use of KPIs and student-level data by faculty, department chairs, and academic advisors in strategic enrollment management activities, including course scheduling;

- Increased use of external accountability metrics in academic program reviews; and
- Knowledge sharing to strengthen data literacy among faculty and staff through the MDC Data Academy, a 30-hour noncredit professional development course,

## LESSON LEARNED

MDC captured three key lessons from their experience of using data to improve student success.

- ▶ **Build a stronger data culture.** The ability to respond to internal and external demands for more and better data is dependent on an institution's data culture. While an institution must have the technical capacity to produce more and better data, it is more important that faculty and staff possess a willingness and ability to use such data to inform changes in policy, practice, and programs. Otherwise, tools will remain underutilized, and insights will remain unexploited.
- ▶ **Learn from existing activities.** Few institutions must start from scratch to increase their ability to produce and use more and better data to improve student success. There are benefits to building on initiatives that have been previously launched and advantages to aligning the change effort with external public policy developments that must be addressed anyway. For example, MDC has aligned its institutional KPIs with metrics used in state and federal accountability and transparency initiatives.
- ▶ **Dig deeper into student-level data.** Institutions should dig more deeply into the data than they may have done historically. Especially for open access institutions like community colleges, ensuring that all entering students in the cohort persist all the way to completion takes extraordinary effort. But without a deeper look at who these students are, developing appropriate supports and interventions will be that much more difficult.