DATA AND ANALYTICS FOR STUDENT SUCCESS

A Focus on Collaboration Between Institutional Research, Student Affairs, and Information Technology

Higher education institutions in the United States have collected and analyzed data for decades. From mandatory reporting for state and federal compliance to ad hoc reporting for internal and external stakeholders, there are myriad business purposes for which administrators, staff, and faculty routinely gather data. As more colleges and universities have focused their strategic planning on improving student outcomes and invested in student success initiatives, it has become critical for functional units, departments, and divisions to develop and execute cross-functional data strategies. Among key stakeholders, institutional research (IR), student affairs, and information technology (IT) are well positioned to spearhead student success initiatives by expanding their relationships to include more data sharing, analysis, and decision making. The report *Institutions' Use of Data and Analytics for Student Success: Results From a National Landscape Analysis*—developed in partnership by the Association for Institutional Research, NASPA–Student Affairs Administrators in Higher Education, and EDUCAUSE—provides results from a national landscape analysis that explores the roles, responsibilities, and relationships among IR, student affairs, and IT professionals.

About Institutional Research

IR is a broad category of work conducted at postsecondary institutions. IR is involved in the collection, analysis, interpretation, and communication of

data, and the strategic use of information for effective decision making and planning. IR may also be involved in institutional effectiveness, assessment, strategic planning, and related fields.

In 2016, AIR, the professional association for institutional research, effectiveness, and assessment, released two national reports. *The AIR National Survey of Institutional Research Offices* established a baseline of IR office capacities (Swing, Jones, & Ross, 2016). This inquiry sought to document the current characterizations of IR offices, including scope of work, reporting lines, staffing, and fiscal resources.

The second report, *Statement of Aspirational Practice for Institutional Research*, provided a new vision of effective IR in support of student success (Swing & Ross, 2016). The aspirational statement highlighted the need for IR to serve a broader range of decision makers, to expand IR capacity through professional development of data skills, and to have chief-level leadership for an institution's data strategy and resources.

The call to expand data and analytics capacity across the institution is particularly insightful in the context of the work described in *Institutions' Use of Data and Analytics for Student Success*. The collaboration between these three functional areas—IT, IR, and student affairs—is key to increasing institutional data literacy and data capacity.

About Student Affairs

Student affairs divisions typically include a wide array of functions such as advising, health and wellness, recreation, conduct, housing, and clubs and activities that provide support for students. Student affairs professionals also work to address critical and often complex issues such as mental health, violence, food and housing security, and substance abuse. Student affairs divisions, like many other areas of an institution, have numerous sources of data. However, as NASPA found in research it conducted in 2017, in many instances data from student affairs units are not fully integrated with other institutional data sources (Burke, Parnell, Wesaw, & Kruger, 2017). This presents an optimal opportunity for student affairs personnel to form new relationships with IR, IT, and other professionals to increase the use of data across functions.

About IT

As technology plays an increasingly larger role in higher education, the function of IT has evolved from one of infrastructural support to strategic

campus partner. IT is focused on the technological and infrastructural capacity to collect, store, integrate, and analyze data from myriad sources across an institution. When coupled with responsibility for information security and data governance, IT is well situated to contribute to student success initiatives with key campus partners and stakeholders.

IT has long supported the collection and use of data in institutional analytics projects to support business operations in higher education, but the application of such technologies to learning analytics and student success initiatives is relatively recent. As such, efforts to support student success initiatives have lagged those of institutional analytics in terms of technological investment and staffing (Yanosky & Arroway, 2015). In addition to increased investment, EDUCAUSE, the largest community of IT leaders and professionals in the world, has also advocated that IT work more closely with campus partners such as IR and student affairs; establish clear policies to govern the collection and use of data on campus; and encourage a decision-making culture that views analytics—especially as they relate to student success—positively. For more information, see EDUCAUSE's 2015 Analytics in Higher Education research hub (Yanosky, Brooks, Thayer, & Morgan, 2015).

IR, IT, and Student Affairs Collaboration

In the spirit of cross-functional collaboration, NASPA, AIR, and EDUCAUSE partnered to conduct a survey that examined the current landscape of institutions' use of data and analytics for student success. The associations jointly developed a survey instrument, which was delivered to 7,806 recipients drawn from across the three membership domains, of whom 970 responded. This effort resulted in the report *Institutions' Use of Data and Analytics for Student Success,* which is one of the first attempts to bring perspectives from student affairs, IR, and IT together into a single document. The report includes several key findings, including the following four.

IR, IT, and student affairs are working collaboratively to make data-informed decisions to support students. Although each group has primary (and expected) roles related to developing data strategies and managing interventions, each group reported supporting roles that indicate higher levels of partnership.

➜ Sixty percent of IR professionals reported involvement in assessing the impact of interventions (a role that student affairs primarily leads).

➔ Fifty-nine percent of student affairs professionals reported involvement in developing an institutionwide data strategy (a role that IR primarily leads).

➔ Thirty percent of IT professionals reported involvement in managing an early-alert system (a role that student affairs and IR primarily lead).

Professionals at all levels, from front-line staff to senior leaders, are using data to make decisions. A majority of midlevel and front-line staff also use data to influence individual students.

➔ Eighty-six percent of senior leaders and midlevel staff use data for decision making, as compared with 63 % of front-line staff.

➔ Seventy percent of midlevel staff use data to influence individual students, as compared with 64 % of front-line staff and 49 % of senior leaders.

Most institutions reported that additional training is needed to help professionals improve their level of data literacy. Survey respondents reported training as the least included component in their institution's data-informed strategy for student success.

➔ Only 54 % of respondents agreed that wrong conclusions were not drawn from results of their institution's analytic studies.

➔ Only 40 % reported the ability to implement results effectively.

IR, student affairs, and IT professionals are most often working together to conduct studies that relate to five student-focused areas: students' journey from admission to graduation, academic progress, efficiency in completing a degree, career pathways and postgraduation outcomes, and ability to afford higher education.

➔ First-year students are the leading group of focus for most of these studies.

➔ Career pathways and postgraduation outcomes are the leading type of study conducted (63 % of institutions reported conducting these studies annually).

➔ Significantly fewer institutions (11 %) reported annually studying students' ability to afford higher education.

Summary

In many ways, the discussion of the current state of how institutions are using data and analytics reflects the collaborative effort of the three higher education associations that produced this research. This project has helped identify ways in which IR, IT, and student affairs can expand their institutionally appropriate roles and transcend or remove organizational silos to improve communication across position levels and domains. Together, these functions are prioritizing the importance of measuring student outcomes and advocating for use of appropriate student data, especially qualitative data, to enhance student success. More details about the findings and recommendations of this research are available in the report *Institutions' Use of Data and Analytics for Student Success*.

References

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