SHIFTING ENVIRONMENTS, EMERGING NORMS

How Changes in Policy, Technology, Data, and Market Competition Affect Enrollment Management Processes

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College choice and student persistence have remained priority concerns among various higher education stakeholders, such as scholars, policymakers, and administrators—and rightfully so. The extent to which we understand the conditions supporting student access and success will ultimately determine our ability to craft equitable and effective institutions of higher education. Given the stakes, it is little surprise that voluminous research has been conducted on these topics using a wide range of student populations, institutional contexts, and theoretical lenses (Hirschy, 2015). The resulting literature is remarkably comprehensive in its scope, yet it has not adequately accounted for a series of interrelated shifts in the organizational environment occurring during the first 2 decades of the 21st century (Brown, 2017, 2018), shifts that have resulted in new norms that hold significant implications for the study of college student retention.

As socially constructed phenomena, norms are complex, and their trajectories are neither uniform nor necessarily linear, often resisting tidy "before and after" analyses. At times, however, environmental shifts can be so pronounced that they produce clear-cut changes in organizational behavior that fundamentally alter the ways in which individuals interact with institutions and each other. Such is the case with a group of policy, technology, data, and market competition drivers that together have shifted the environment toward more disconnected, impersonal, commodified, and hypercompetitive norms for college student recruitment and retention. The extent to which our field understands and integrates these shifts into the dominant

conceptual models for college student retention will ultimately determine their effectiveness in empowering institutions to support student success.

Our goal in this chapter, then, is threefold. First, we briefly survey the college student recruitment and retention literature to highlight a relatively stable set of preexisting institutional norms, or expectations for behavior (Hodum & James, 2010) that previously governed college recruitment and retention processes. Next, we describe in greater detail how various environmental drivers have considerably shifted these norms over the past 2 decades. Finally, we outline the implications of these shifts for future research into four previously identified factors that influence college student persistence: (a) student perceptions of institutional integrity, (b) entering characteristics of students, (c) student social and academic integration, and (d) institutional concern for student welfare.

Previous Norms in Student Recruitment and Retention

We begin by providing a summative overview of the norms operating across four dimensions of student recruitment—professionalism, process, outreach, and pricing—and four dimensions of student retention—funding, stakeholders, information, and departure. It is important to note that while these norms were widely held and relatively stable prior to the turn of the 21st century, their expression undoubtedly varied to some degree within and across institutions, as did the timing of their evolution within the field. What follows, therefore, is a brief outline of how student recruitment and retention norms typically operated across each dimension as a form of "best practice" prior to the introduction of various drivers of change.

Student Recruitment

Previous norms in student recruitment were informed largely by characteristics such as institutional mission, setting, and type. Those characteristics directed outreach to prospective students, defined the parameters for assessing person-institution fit, provided a backdrop for engagement, and determined the institution's pricing model. Postsecondary approaches to student recruitment coalesced around the following four norms.

Professional Norm: Advising Approach to Admissions
Throughout the history of American higher education, colleges and universities have faced what Henderson (1998) has termed the "twin prongs of the admissions dilemma: the quantity and quality of students" (p. 25). Simply put, the admissions office is tasked with recruiting enough students

to meet the financial needs of the institutional budget while at the same time maximizing the academic profile of the incoming class. In spite of these institutional needs, the fundamental identity of the admissions officer has always been that of trusted advisor, particularly given the ethical dimensions inherent in representing the institution to prospective students. Swan (1998) noted that "counseling" and "customer service" have traditionally been used as descriptors for admissions officers, terms that emphasize the primary goal of assessing the match between student and institution rather than "selling" the college to prospective students (p. 31). Fundamental to this ethical stance are notions of honest representation of institutional character, transparent disclosure of policies and requirements, and the primacy of student interests.

Professional associations in higher education have codified these values in various ways. Underscoring the professional norm of assessing student fit through an advising approach to admissions are codes of ethics formulated by various national associations, such as the American Association of Collegiate Registrars and Admissions Officers (AACRAO, 2020), the National Association for Collegiate Admissions Counseling (NACAC, 2019), and the Council for the Advancement of Standards in Higher Education (CAS, 2012). For example, the *CAS Professional Standards for Higher Education* (2012) defines the mission of Undergraduate Admissions Programs and Services (UAPS) as enrolling applicants "whose academic and personal credentials are consistent with the overall priorities and mission of the institution" (p. 482) and emphasizes the responsibility of UAPS professionals to accurately represent the policies and procedures of the institution. Research suggests that admissions practitioners have adopted these espoused principles to serve as a normative guide for professional behavior (Hodum & James, 2010).

Process Norm: Substantial Personal Engagement

Outreach efforts that foster substantial personal engagement with prospective students have remained bedrock strategies for college admissions offices. The goal of these strategies has been to make an in-person connection between an admissions officer and prospective student, whether extending outward to various venues where students are located or drawing students onto campus. Smith (1998) identified three in-person strategies for student engagement typically used by college admissions offices, each with an increasing level of prospective student interest. In the first, travel to high schools enables the admissions officer to visit with school counselors, meet with groups of prospective students, and assess the character of the likely applicant pool. Second, college fairs present an opportunity for the admissions officer to

raise the visibility of the institution among prospective students currently in the market for a college and engage in one-on-one conversations. Finally, campus visits allow the admissions officer to showcase the college campus during an itinerary of events customized to the prospective student's interest. At all three levels of student interest, the process norm is substantial personal engagement to facilitate and deepen the relationship between the prospective student and the institution.

Outreach Norm: Prospect Pool Defined by Institutional Decisions
For decades, student outreach has largely been conducted in a "push" manner, with institutions primarily defining their prospect pools and pushing their messaging out to potential students. Colleges and universities have historically delineated the academic and geographic parameters of their desired prospect pools, then purchased student contact information from sources such as ACT's Educational Opportunity Service or the College Board's Student Search Service (Smith, 1998). This contact information allowed the institution to engage prospective students in direct mail campaigns consisting of print and physical materials such as letters, brochures, announcements, invitations, and videocassettes (Smith, 1998). Early digital outreach practices supplemented traditional mail campaigns by leveraging customer relationship management (CRM) software to contact prospective students via email (Kahler, 2008). Regardless of whether the form of communication was material or digital, the norm directing outreach remained institutional definition of the prospect pool.

Pricing Norm: Different Pricing Models for Different Sectors
Because ability to pay is a major factor in the college search process (Cabrera & La Nasa, 2000; Hu & Hossler, 2000; Perna, 2008), tuition pricing has been a key consideration in prospective student recruitment, one historically managed differently by public and private institutions. On the one hand, public universities have typically charged students differential tuition prices based on their residence. Students from the state in which the institution is located have paid a lower in-state tuition rate, while students from other states have paid a higher out-of-state tuition rate. On the other hand, private colleges have typically posted the same tuition "sticker price" for all students, regardless of residence, then used a differential pricing model designed to maximize net tuition revenue while meeting enrollment goals (Breneman, 1994). This differential pricing model raises the tuition sticker price above the actual cost of education to signal institutional quality and then discounts the tuition rate for individual students according to varying levels of demand (Rine, 2016). For decades the norms governing institutional pricing varied

according to institutional control; private colleges priced tuition according to student demand, while public institutions priced tuition according to student residency.

Student Retention

Previous norms in student retention were defined by well-established and internally conducted institutional approaches. Once enrolled, students were presumed to be under the care of one particular institution until they themselves initiated departure, and state funding was determined by enrollment headcount with the presumption of student persistence. The following four norms directed institutional behavior in the area of student retention.

Funding Norm: State Support Determined by Enrollment

In the latter half of the 20th century, many state legislatures tended to allocate financial resources to all institutions within the state, both public and private, based on student enrollments. In other words, a specific dollar amount was allocated per student (i.e., indirect funding). Thus, larger institutions such as state research universities often received more money than smaller regional comprehensive institutions. Lawmakers and institutional leaders relied on "front end" admissions metrics to regulate the flow of resources across a diverse set of institutions in the state (McLendon et al., 2006). As direct state appropriations began their continual decline in the 1970s, legislators granted increased autonomy to institutions to set their own tuition levels in order to compensate for the lost state revenues (McLendon & Mokher, 2009). However, even as direct state allocations diminished, indirect funding was still available to public and private institutions, determined by the total number of students enrolled at the institution.

Stakeholder Norm: Retention Function Housed Internally

Many colleges and universities have specific departments established to oversee and coordinate retention efforts for the broader institution. The placement of the office within the organization has varied considerably, as some institutions included the office as part of enrollment management, others within academic affairs, and still others embedded in student affairs (Dolence, 1998). While the specific placement of the retention function varied from one institution to the next, the common thread was that retention efforts were limited to stakeholders operating within the institution itself. Institutional actors commonly connected to the retention function have typically included faculty, residence life staff, campus counselors, and academic advisors (Hossler, 1986; Hossler et al., 1990).

Information Norm: Data Collected According to Predetermined Best Practice Model

College and university retention offices focus their efforts on the centralized collection of information across multiple departments and divisions (Heverly, 1999; Murtaugh et al., 1999; Tinto, 2010). These offices have served as a hub for the acquisition, analysis, and reporting of retention information. Historically, the information collected by these retention offices has been limited to elements found in predetermined "best practice" models (Bean, 2005). In this approach, the retention office focuses its attention on factors previously identified by a trusted model as most likely to affect student persistence. This confirmatory approach provides a clear direction for information gathering and interpretation.

Departure Norm: Students Initiate Transfer Conversation

Colleges and universities have long operated in a competitive environment governed by a larger professional obligation to the educational best interests of students—namely, the successful completion of a selected academic program (Henderson, 2008). For this reason, the NACAC (2017) *Code of Ethics and Professional Practices* has historically prohibited institutions from soliciting transfer applications from prospective students who have enrolled elsewhere unless the students have themselves initiated a transfer inquiry. In addition, the CAS *Professional Standards for Higher Education* (2012) has prohibited UAPS staff from distributing "biased, unflattering, and/or potentially inaccurate information about other secondary or post-secondary institutions, their admission criteria, their curricular offerings, or other related information" (p. 486). Thus, the operational norm guiding student departure has been an understanding that once a student has chosen to enroll in a particular program of study, other institutions do not make unsolicited attempts to lure that student away via transfer prior to program completion.

Environmental Shifts and New Norms

We now turn attention to the ways in which the aforementioned enrollment management norms have been altered by a series of environmental shifts in society at large. In particular, we identify four types of environmental drivers—policy, technology, data, and market competition—and consider their influence within both the student recruitment and retention domains (see Figure 12.1). We then describe the striking alterations of professional norms that have occurred in response to these drivers, whether by their revision or outright replacement.

Figure 12.1. Components of environmental shift and resulting norms for institutional enrollment management processes.
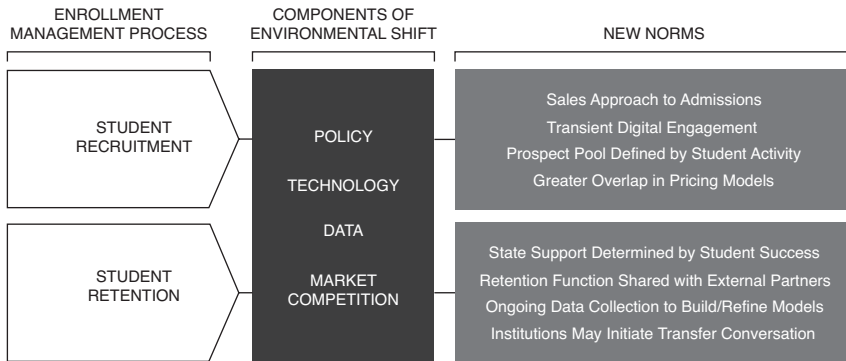
Student Recruitment

Student recruitment behavior has become both more aggressive and more reactive in response to environmental drivers. Because the college search process increasingly takes place in the digital realm, institutions now attempt to capture organic interest signaled online by prospective students, often outsourcing their outreach to third parties. Tuition discounting has been widely adopted across institutional types to encourage matriculation, and nonmonetary incentives are gaining acceptance within the admissions profession.

Policy Drives New Professional Norm: Sales Approach to Admissions
The first major shift in student recruitment norms resulted from changes to the NACAC *Code of Ethics and Professional Practices*. Under pressure from the U.S. Department of Justice (USDOJ), the national association voted to eliminate three long-standing provisions of its code of ethics. One such eliminated provision prevented colleges from offering special incentives for early decision applicants, while others established a national decision day and required that colleges cease recruitment of students once they have made an official commitment to another institution. While the USDOJ understood these provisions as inappropriately limiting competition among colleges, their inclusion in the code of ethics was designed to ensure that a student's college choice was "informed, well-considered, and free from coercion" (NACAC, 2017, p. 6), and thus upheld the historic advising norms of the admissions profession.

These revisions of membership expectations by the largest and most influential national association of college admissions officers signaled a shift in professional norms away from the historic advising approach to student recruitment and toward an emphasis on sales. Although institutional

marketing has always been a component of any college's recruitment efforts, the NACAC stipulations provided important ethical guiderails that served to balance student needs in the college search process with institutional interests. Removal of these guiderails shifted the balance toward a sales approach to student recruitment, in which new incentives—such as preferred campus parking, early housing confirmation, and bookstore discounts or credits—direct prospective student focus away from assessing institutional fit, and a now-endless recruitment cycle distracts prospective students from deep commitment and full integration after an enrollment decision has been made. While it is unlikely that the field has witnessed the full impact of this relatively recent redefinition of membership expectations, early evidence suggests a shift in professional norms is indeed underway. One well-known annual national survey of admissions officers found that nearly a quarter of colleges are already offering new incentives for prospective students that had been prohibited only a year before (Jaschik, 2020).

Technology Drives New Process Norm: Transient Digital Engagement
The second major shift in recruitment norms is the increasing role digital engagement now plays in college choice as a result of advances in technology. The advent and near-universal adoption of smartphones, combined with the development of associated mobile websites, has changed the way high school students engage with colleges and universities (Ruffalo Noel Levitz & OmniUpdate, 2019). A prospective student now experiences the postsecondary environment in digital as well as physical ways, through interactive online tools such as virtual tours and live chat. In addition, these tools enable prospective students to access institutional information more quickly and easily than ever before. Although certainly more efficient, the character of this digital engagement is also more transient than that of the substantial in-person contact required by an earlier era. Many prospective students may end their association with the institution after obtaining information digitally, while others may decide to visit campus as a result of their digital engagement. However, the potential digitization of all elements of the student recruitment process—from electronic applications to admissions interview via videoconference—means that students can move through the admissions funnel with little—if any—in-person contact with the physical campus and face-to-face interaction with institutional representatives prior to matriculation.

The increasing role of online program management (OPM) companies in recruitment processes underscores the widening acceptance of more transient forms of student engagement within the field. OPMs are third-party organizations that provide support for developing and delivering online

programs (EDUCAUSE, 2020), and their ranks have swelled over the past
decade from just a handful of major players to dozens of firms serving a few
hundred colleges and universities (McKenzie, 2018). Eduventures (2018) has
grouped the levels of service offered by OPMs into three categories: compre-
hensive, selective, and specialized. Of particular note is the comprehensive
level of service, which involves third-party assumption of the recruiting func-
tion for particular academic programs, a move made possible by the wider
shift away from in-person, on-campus engagement and toward more fleeting
digital interactions, especially during the early stages of the college search
process. In sum, whether managed by third-party partners or by the institu-
tions themselves, this technological shift in the process norms for student
recruitment has resulted in engagement of a more temporary and shallow
nature, requiring colleges and universities to take greater care in orienting
and integrating newly enrolled students into the campus community upon
their matriculation.

Data Drives New Outreach Norm: Prospect Pool Defined
by Student Activity
A third shift in recruitment norms has resulted from the expansion of data
generation and tracking capabilities made possible by new technologies.
Previously, colleges and universities defined their prospect pools according
to academic and geographic considerations, then "pushed" information out
to institutionally identified students using largely print materials. Adoption
of email and creation of websites digitized communication and opened up
new avenues for college outreach at the close of the 20th century. In the
following decades, the rise of search engine optimization (WebFX, 2020)
combined with the development of sophisticated CRM tracking capabili-
ties (A. McClure, 2012), fostered a mechanism for identifying and measur-
ing student interest in particular institutions. Thus, prospect pools are now
defined in greater measure by organic student activity, which effectively
"pulls" institutional information toward signaled interest.

The technological architecture supporting the new outreach norm is
threefold. First, a college optimizes its website by seeding keywords holding
currency among prospective students throughout its various program pages
(Ruffalo Noel Levitz, 2015). Second, prospective students use internet search
engines such as Google, Bing, or Yahoo to look for colleges that match their
interests and preferences. Well-optimized websites matching student que-
ries appear higher in the results returned by the search engine and are more
likely to be visited (OmniUpdate, 2020). Once on the college's webpage, the
prospective student encounters enough information to pique interest, but
often discovers inbound marketing techniques (Hope, 2014; Royo-Vela &
Hünermund, 2016) that require submission of personal information in

order to receive additional details about particular programs. Third, colleges can input student personal information into CRM software programs such as Technolutions SLATE, which enable customized communication flows and real-time tracking of student engagement with the institution's messaging (e.g., email successfully delivered, email opened, link embedded in email clicked, etc.) and website (e.g., when, how often, and in what order particular webpages are visited). In sum, the existence of more detailed data regarding student activity, combined with the technological tools to effectively mine said data, has rendered the definition of prospect pools a function of student activity more so than institutional projection.

Market Competition Drives New Pricing Norm:
Greater Overlap in Pricing Models
A final shift in recruiting norms involves the acceleration of tuition discounting as a pricing strategy. The financial consequences of divestment in public higher education following the Great Recession have been significant, with per-student state appropriations to higher education having recovered only halfway a decade later (State Higher Education Executive Officers Association [SHEEO], 2018). Consequently, state universities have been forced to cover budget shortfalls by finding new revenue streams or expanding existing ones, such as student tuition. To better compete for prospective students, public universities have more fully embraced tuition discounting as a pricing strategy in the years following the Great Recession. While Baum and Lapovsky (2006) found evidence of tuition discounting among public 4-year universities as early as 1994–1995, discount rates were modest and relatively stable, ranging from only 11.7% that year to just 14.7% in 2004–2005. However, discount rates have steadily climbed among public institutions in recent years, with one study finding an average tuition discount of 24.6% among public flagship universities in 2016 (Davis & Kirshtein, 2019). Thus, students applying to public institutions can now expect not only to see a lower sticker price than their private counterparts, but also to receive a larger average discount than was available prior to the Great Recession.

During the same period, discount rates continued to dramatically climb among private colleges. As tuition-dependent institutions, private colleges sought to navigate the choppy financial waters following the Great Recession by attracting prospective students via ever-increasing tuition discounts, even as yield rates steadily declined during this period (Rine et al., 2021). According to Baum and Lapovsky (2006), the discount rate at private 4-year colleges was only 23.8% in 1994–1995; by 2019–2020, the average tuition discount for first-time, full-time, first-year students climbed to 52.6% (NACUBO, 2020). For years, economists of education have warned that tuition discounting is susceptible to unsustainable escalation, as heightened

consumer awareness combined with the strategic competitive response of postsecondary competitors could lead to a so-called "race to the bottom" (Breneman et al., 2001). The results of NACUBO's (2020) latest Tuition Discount Study suggests that the market may have indeed moved into unsustainable territory, as first-year enrollment declined at a plurality of institutions (47%) and net tuition revenue dropped by 1.3% after adjusting for inflation, even though discount rates continued to increase year-over-year. In addition to the increased competition from public universities seeking to backfill the losses of state appropriations through increased tuition dollars, private colleges in the Northeast and Midwest have also had to contend with population declines and demographic shifts (Bransberger & Michelau, 2016), forcing them to expand their recruiting footprint and compete for students from other parts of the country, which in turn has increased the downward pressure on price and fueled further increases in the tuition discount rate.

Student Retention

In response to environmental drivers, student retention efforts have become more complex and involved more external partners. Performance-based state funding formulas and the removal of historic prohibitions against recruiting enrolled students have placed heightened emphasis on student retention. In turn, institutions have increased data collection to support building and refining models for student success and sought third-party support to enhance and even perform elements of the retention function.

Policy Drives New Funding Norm: State Support Determined by Student Success

The Great Recession brought about notable changes in how American colleges and universities were funded by state governments. The emphasis in funding norms shifted from a "front end" focus on enrollment-based funding formulas to a "back end" focus on using measures of student success to determine state support. The shift in norms was driven by policy changes governing the statewide distribution of limited financial resources that support all state public services (Archibald & Feldman, 2014). As part of a "new accountability" movement, legislators established higher education policies known as "performance-based funding" grounded in a philosophy that institutions would operate more efficiently and effectively if guided by financial incentives (K. R. McClure et al., 2020).

The diffusion of performance-based funding in higher education came in two distinct waves. In the first wave, during the latter decades of the

20th century a handful of states adopted a policy approach that emphasized allocating a portion of an institution's budget based on specific outcomes such as credit attainment, course completion, graduation rates, diversity, job placement, and pass rates, among many others (McLendon et al., 2006). The second wave of performance-based funding, also referred to as "PBF 2.0," further expanded the implementation of PBF policies in the years immediately following the Great Recession when legislators were confronted with even further reductions in state budgets (Kelchen, 2018). In addition to government, many philanthropic organizations also implemented performance-based funding strategies to incentivize colleges and universities to focus on degree completion. Kelchen noted that nearly 70% of all states had implemented some form of PBF 2.0 by 2015, which made a notable impact in institutional retention strategies.

To account for institutional diversity, state legislators established unique algorithms and performance metrics to allocate financial resources according to institutional type. For example, the Ohio legislature created three unique formulas, one for flagship universities, another for regional universities, and another for community colleges (Miao, 2012). The formulas awarded some institutions for achieving course completion and degree-completion targets, while it awarded others for completing developmental education courses and successful transfers. Consequently, the particular facet of retention an institution pursued was, by design, a function of the policy-driven algorithm.

Within the literature on the efficacy of performance-based funding, a further divide exists, as some scholars assert the strategy undermines the social issues it attempts to ameliorate. It would seem that the allocation of key financial resources to institutions based on improved student retention metrics might be a widely celebrated policy advancement. However, there is a growing body of work that suggests PBF may contribute to social and organizational inequality. Two essential questions have been levied against the strategy: (a) Does it work? (b) Does it disadvantage students? Based on longitudinal analyses, one group of researchers has contended that institutional actions tied to retention metrics are not associated with improved retention rates (Sanford & Hunter, 2011). Another group of researchers asserted that PBF metrics yielded unintended consequences, specifically higher admissions standards for access-oriented institutions and the disproportionate enrollment of minorities in less selective institutions (Li, 2019). In short, although the literature has not yet established a conclusive connection between PBF policies and educational outcomes (Hillman, 2016), the willingness of multiple state legislatures to move away from allocations based solely on enrollment has resulted in a new funding norm for many public institutions.

Technology Drives New Stakeholder Norm: Retention
Function Shared With External Partners

In the past decade, advancements in technology prompted a shift in stakeholder norms from retention functions that were predominantly housed internally to retention functions predominantly shared with external partners in varying capacities. As explained further in this section, colleges and universities increasingly turned to outside companies (i.e., "external partners") to either provide or augment services and products that would improve their institutional retention efforts. This change commenced as colleges and universities strengthened their technological infrastructure, making strategic improvements to their software and data management systems. A focal component of the technological infrastructure was the student information system (SIS), which focused on centralizing all student records information from across the institution. An equally vital component was the complementary collection of software products for the various university divisions that integrated with the SIS to improve service and efficiency. For example, institutions acquired learning management systems (LMSs) for academic departments, including modules for divisions of student housing, and student success management systems (SSMSs) for areas with oversight of student support.

While many software products were acquired to support broad divisions of colleges and universities, the SSMS software provided a unique focus that sought to improve retention by considering multiple aspects of the student experience, such as course enrollment, participation, financial aid, student engagement, physical/mental health, and more. The early warning SSRM systems are designed to identify students who may be less likely to persist. Flagging specific students allows administrators, faculty, and staff to proactively encourage a student to take action and get back on track. This approach relies on technology to assess multiple types of student data to successfully and expeditiously identify students in need.

In pursuing technology-based retention strategies, institutions often selected one of four viable options: (a) purchase the various software products from external partners, (b) internally develop the software themselves, (c) outsource the service to a third-party vendor, or (d) adopt a hybrid approach. Many institutions purchased SSMSs from external partners, such as Starfish, CampusLabs, CampusNexus Succeed, or SignalVine. These retention software products integrated with the institution's SIS to enable tracking and monitoring of student performance on essential retention topics such as academics, finances, and engagement. Rather than purchase software from an external partner, some institutions opted for an alternate retention strategy and developed their own student success software "in-house" to

help students more effectively navigate curricular structures. For example, Austin Peay State University developed the software program Degree Compass, which was later expanded and offered to other institutions. This, in turn, made Austin Peay an external partner supporting peer institutions in retention efforts across the state (Denley, 2014).

Institutions with limited financial means often implemented a third strategy, one that relied on outsourcing retention services to third-party vendors who could offer the service at a reduced cost. In this model, organizations such as Ruffalo Noel Levitz could analyze the institution's SIS records over time and provide strategies to improve student retention based on historical trends. Outsourcing these institutional functions enabled third-party vendors to provide immediate technological and human resources to colleges and universities that desperately wanted to improve retention and completion rates in the face of a rapidly shrinking applicant pool. Finally, some institutions opted to pursue a fourth technology-based retention strategy that blended internal and external approaches. For example, a diverse set of three institutions partnered with Civitas Learning to design an SSMS that aggregated data from across their LMS, SIS, and enterprise resource platforms to establish an early alert mechanism to improve course completion and student retention (Milliron et al., 2014).

In the past decade, advancements in technology prompted a shift in stakeholder norms from retention functions that were housed internally to retention functions shared with external partners. At one end of the spectrum, some institutions now rely on external partners to simply secure necessary software. At the other end of the spectrum, some institutions depend on outsourcing all retention functions to external partners. While there is certainly not a uniform approach to retention across institutions, the use of external partners has become an observable and consistent emergent norm within the field.

*Data Drives New Information Norm: Ongoing Data Collection
to Build/Refine Models*

The continued advancement of technology also brought about a transformation in the way most organizations processed information, including colleges and universities. This new type of information that emerged was termed "big data" because its volume, variety, and velocity were significantly larger than in prior eras (Macfadyen et al., 2014; Thille et al., 2014). The phenomenon brought about a change in information norms in student retention; whereas retention efforts had previously focused on collecting data according to predefined rules and best practice models (Bean, 2005), the emergent

information norms emphasized ongoing data collection to both build and refine new models (Milliron et al., 2014).

Over time, advancements in technology enabled the various components of an institution's digital infrastructure to rapidly generate large volumes of student data at granular levels. Thus, these data were simultaneously "broad and deep" (Thille et al., 2014). For example, LMS software generated granular *learning data* for each student, such as course log-ins, time spent on a given assignment, and individual test questions. The LMS system also generated large volumes of *social data* between persons, such as peer discourse and faculty engagement in both asynchronous and synchronous classroom formats. With seemingly limitless amounts of new types of data at their disposal, administrators and researchers sought to identify the specific interactions and experiences that most supported student retention.

As these tools grew in sophistication, the new field of information analytics provided university leaders with guidance concerning how best to examine and deploy the expansive data available to them. Both information analytics broadly and its particular manifestations in higher education developed in three phases. Initial efforts in analytics were used for decision support and relied heavily on descriptive analyses to explain what had happened in the past (Davenport & Harris, 2017). For example, demographics from the SIS could be integrated with social and learning data from the LMS and used to inform decision-making about the academic components of courses that were contributing to low retention rates in specific student populations. The aim was to integrate large amounts of data from different sources across the institution to generate models of student progression and completion (Macfadyen et al., 2014).

The second development in analytics emphasized "predictive analytics," whereby data were analyzed to inform the future. The analyses examined data across multiple platforms to specifically shape decisions and educational products. A notable example was the Degree Compass software used by many colleges and universities in Tennessee to "level the playing field" for underprepared students (Denley, 2014). Information on the prior patterns of student behavior were used to generate academic retention models to guide students with a "choice architecture" regarding degree programs and course sequencing. The aim in this second phase of analytics was to "produce deep predictive flow models of student progression and completion coupled with applications that take these data and bring them to advisors, students, faculty, and administrators in highly consumable/useable ways" (Milliron et al., 2014, p. 70).

In the third and most recent phase, the use of "autonomous analytics" has been emphasized. Autonomous analytics refer to those data that are

analyzed using artificial intelligence techniques (i.e., machine learning) in addition to their integration in processes and systems (Davenport & Harris, 2017). For example, some institutions have used the machine learning approach to generate a predictive model of student success based on student attendance (Gray & Perkins, 2019), while others have leveraged it to identify at-risk students and corresponding models of intervention (Delen, 2010). This phase embeds analytics into processes to offer real-time assessment and feedback systems to improve learning and student success (Gašević et al., 2016), and does so with the assistance of artificial intelligence.

The preceding discussion demonstrates how advances in technology have altered the way colleges and universities use data and analytics to support student retention. A function that had once focused on collecting data according to predefined models now operates according to information norms that direct data collection efforts toward the building and refining of new models. The rapidly evolving nature of the information analytics field has required scholars, researchers, and practitioners to remain alert to frequent developments that hold implications for institutional retention efforts.

Market Competition Drives New Departure Norm: Institutions
May Initiate Transfer Conversation

A final driver of change in retention norms stems from the recent removal of key guidance regarding transfer student recruitment from the NACAC (2019) *Code of Ethics and Professional Practices*. As referenced previously, under legal pressure from the USDOJ for codifying industry standards viewed as limiting competition between institutions, the association's membership chose to eliminate various provisions from its professional code of ethics, one of which prohibited solicitation of transfer applications from students enrolled in other institutions. The guideline reflected a widely held sense within the field that once a student had made a college choice and matriculated, competitors should place the student's long-term educational interests—namely, college completion—ahead of their own short-term financial interests—namely, increased tuition from transfer students. This norm placed the profession at odds with the USDOJ, which equated "poaching" of students with employee recruitment practices and launched a federal antitrust investigation (Jaschik, 2019). One media outlet recorded the reaction of a member that reflected well the prevailing mood: "Many of us are sad and somewhat angry, because we are committed to doing what's right for kids and families, and we think this goes backwards" (Jaschik, 2019, para. 13). In spite of this widely held sentiment, the NACAC membership ultimately voted to remove the disputed provisions from the code of ethics in

order to avoid a costly legal battle that would threaten the financial viability of the association (Jaschik, 2019).

Poaching of enrolled students has thus become a sanctioned practice within college admissions. Although many admissions professionals undoubtedly frown upon poaching, recent changes to the resource environment are likely to encourage adoption of this practice. Total college enrollment has declined since its peak in the years immediately following the Great Recession, providing fewer prospective students to fill existing institutional capacity and provide tuition dollars to support current financial obligations (Schmidt, 2018). Tuition-dependent private colleges and public regional universities located in states experiencing demographic declines are particularly at risk, as campus leaders search for new revenue streams to ensure financial survival. Compounding these difficulties is the COVID-19 pandemic, which has resulted in a 4% decline in undergraduate enrollment from the previous year (Sedmak, 2020). In this context of resource scarcity, it is perhaps unsurprising that early research into the competitive response of institutions has found that 35% of enrollment officers had already considered offering transfer incentives to students enrolled at other institutions just weeks after the NACAC guidelines were changed (Burke, 2020), suggesting that the new norm of student poaching has already taken root.

Implications for Research on College Student Retention

It is admittedly difficult to capture all of the nuances inherent in each of the aforementioned domains, yet the preceding overview of recent shifts in enrollment management processes begins to trace the contours of an emergent landscape for college student recruitment and retention. Moreover, the shifts previously outlined reveal a complex terrain in which some changes enhance—while others undermine—existing institutional recruitment and retention efforts. It is important for researchers to be mindful of the rapidly changing resource environment as institutions increasingly turn to innovative methods of recruitment and retention to maintain their student enrollments. The broad contextual changes illumined in this chapter should be given consideration in both the content and design of future research into college student persistence. In particular, special attention should be given to the implications of these changes for four factors identified by previous research as consequential to student retention: (a) student perceptions of institutional integrity, (b) entering characteristics of students, (c) social and academic integration, and (d) institutional concern for student welfare. We conclude by tracing a few implications of the aforementioned emergent norms for future research into each of these factors.

Student Perceptions of Institutional Integrity

Research has demonstrated a connection between students' persistence and their sense of institutional integrity, or "the degree to which students perceive the institution's actions to be aligned with its vision and mission" (Reason, 2009, pp. 668–669). According to Braxton et al. (2014), institutional integrity manifests in two practical ways: (a) fair administration of policies and rules, and (b) fulfillment of student expectations. In particular, student perceptions of institutional integrity were positively influenced when their expectations were fulfilled (Braxton et al., 2014). As institutional norms change to accommodate shifts in the resource environment, one might expect disruption of established persistence patterns should students take a negative view of new institutional policies or feel as if their expectations have not been reasonably met.

Two dimensions of the emergent norms merit special attention. First, researchers should examine to what extent the adoption of a sales approach to recruitment shapes the expectations of students. As emphasis shifts away from helping students find the right institutional fit and toward securing enough paying students to meet budget goals, attention should turn to how institutional signals and incentives are transformed, and in turn, how they affect student behavior. Does more aggressive marketing messaging change the ways in which students envision their college experience? Do sales tactics such as early decision incentives affect the length and character of the typical student's college search process? Taken together, do these shifts result in short-circuited decision-making processes and distorted student perceptions that engender disappointment upon matriculation, ultimately depressing student satisfaction and lowering persistence?

Second, researchers should examine how emergent norms surrounding tuition discounting practices affect student perceptions of institutional integrity. As unfunded aid becomes a more commonly used recruitment strategy among public universities, so too does the practice of marking up the institutional "sticker price" above the actual cost of education in order to maximize tuition revenue through differential pricing. The disparity in pricing between students is largely obscured during the recruitment process, as each prospective student sees only an individual, personalized financial aid offer. However, once students enroll and begin taking classes with one another, differences in both academic ability and financial obligation become apparent. What happens to student perceptions when it becomes clear that students who applied to multiple competitors or waited to decide until later in the recruitment cycle received larger "scholarships" than their equally—or perhaps more—academically capable peers? Are students who perform well

academically during their first year but feel disappointed with their tuition rate more likely to be "poached" by competitor institutions?

Entering Characteristics of Students

Demographic shifts in the American population highlight two notable trends for the coming decade in student recruitment: a steep decline in the traditional-age college population and an increase in students of color (Grawe, 2018). According to Tinto (2006–2007), the field has long recognized both "how a broader array of forces, cultural, economic, social, and institutional shape student retention" (p. 3) and "how the process of student retention differs in different institutional settings" (p. 4). As institutions located in areas experiencing population decline and/or demographic shifts adapt to the emergent environment, the influence of these two factors will likely become less stable and perhaps more pronounced, particularly as admission offices employ sales tactics in tandem with more aggressive tuition discounting to meet their recruitment goals and the college search process takes on a more transient digital character. Future recruitment and retention research must give attention to how these institutional responses to population changes intersect with and even magnify the specific social, cultural, and educational needs that may differ across various institutional types and settings.

Additionally, we recommend that future research on student recruitment and retention should give immediate attention to the central role that external partners now play in recruitment and retention processes. For instance, as more institutions turn to OPMs to assist with achieving student enrollment goals, how might these external for-profit organizations support or alter the educational goals of the institution, particularly when they are servicing multiple competing institutions (Carey, 2019)? Likewise, many institutions are turning away from the traditional approach of buying lists from the College Board for mailing purposes and toward companies like Google who provide institutions with custom analytics for targeted admissions and recruitment. In what ways does the targeted admissions approach impact students, student groups, and the institution more broadly? Moreover, will differences in retention emerge as these methods of recruitment change over time? Most importantly, in what ways do these third-party vendors impact student access and degree attainment?

Social and Academic Integration

Broader environmental shifts and new norms not only influence institutions; they also have a direct impact on individual students whose social and academic integration is vital for success (Braxton et al., 2014; Tinto, 1993).

The advancement of technology and analytics and their application to student retention hold great potential for supporting this social and academic integration, and the increased use of behavioral economics has highlighted how information is "pushed" to students in proactive ways in an attempt to ameliorate socioeconomic disparities that influence student success (Denley, 2014). "Nudges" were a proposed solution to address widespread "under-matching" in student recruitment, a phenomenon wherein well-qualified individuals from lower SES backgrounds ultimately enroll in less competitive institutions (Hoxby & Turner, 2015). Researchers have relied on technological nudges such as text messages to provide important information to students regarding admissions, financial aid, enrollment, and course registration (Castleman & Page, 2016) and Web 2.0 communication technologies to promote social integration among first-generation students (Rowan-Kenyon et al., 2018). However, emerging research on this topic has underscored that the impact of "nudges" on student recruitment may either be ineffectively scaled or possibly waning (Gurantz et al., 2020). As institutions conduct ongoing data collection to build and refine their student retention models, often in partnership with third-party providers, it is critical that investigation into the nature of "nudges" become more granular and systematic to unlock their full potential for supporting student social and academic integration. What types of "nudges" are most effective across multiple contexts and student populations, and which ones are best deployed in more targeted ways? In the context of rapidly changing technology and data information, how long can specific interventions realistically maintain their efficacy? Finally, in what ways can technological and social "nudges" be coupled to maximize social and academic integration?

Institutional Concern for Student Welfare

A final pertinent factor related to student persistence is the institution's level of commitment to student welfare, which can be defined as an "abiding concern for the growth and development of its students" that is expressed through the "high value the institution places on its students, treating each student with respect as an individual, and the equitable treatment of students" (Braxton et al., 2014, p. 86). Recruitment technologies such as real-time CRM databases and retention software with large-scale analytics provide efficient ways to pay greater attention to students from their first engagement with the institution. Researchers should examine the extent to which these personalized, if not personal, mechanisms effectively represent and convey institutional concern for student welfare at various stages of their engagement with the institution. Does the more transient nature of these communications lessen

their impact on student persistence? Can they be deployed as stand-alone measures, or does their efficacy depend upon their use in tandem with other tactics? How do their effects vary, if at all, across program modalities—are they more effective with online populations accustomed to virtual interaction and less effective with residential students? Finally, as more institutions turn over elements of student advising and retention to OPMs, researchers should explore the ways in which those expressions of institutional concern qualitatively differ from ones handled directly by the host university. With regard to student retention, does the messenger matter if the message is the same? Or is something "lost in translation"?

Conclusion

The series of interrelated shifts and resulting norms reviewed in this chapter hold significant implications for the study of college student retention. Indeed, the emergent landscape presents new challenges to and opportunities for supporting student success, even as changes to policy, technology, data, and market competition remake the ways in which postsecondary institutions interact with individuals. Higher education researchers have a critical role to play not only in assessing the impact of these changes on the student experience, but also in articulating how the long-standing values of the academy can best be expressed in our present context. Finally, the extent to which institutional leaders—and student affairs professionals in particular—understand these emergent norms and their implications for the student experience will determine their ability to effectively embody institutional integrity, extend concern for student welfare, and engender the social and academic integration necessary to ensure student success.

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