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This chapter looks at the importance of benchmarking in terms of admissions, enrollment, and financial aid within an organization used to assess enrollment management's performance.

Benchmarking and Enrollment Management

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Every college and university, whether public or private; two-year, four-year, or graduate; traditional or online, depends on recruiting and enrolling new students and strives to have as many of those students as possible complete their educational programs. Knowing how effectively your institution is managing the various stages of enrollment is critical to institutional success, and benchmarks are an important tool for evaluating enrollment management success. This chapter will present a set of benchmarks for evaluating performance at each stage of the enrollment management process, including prospecting, applications received, admit rates, yield, financial aid discounting, retention, graduation rates, academic progress efficiency, and managing course section offerings.

Overview

The work of enrollment management is central to the operation of any college or university. From the standpoint of our educational mission, we can only be successful if we have a population of students reasonably well prepared to succeed in the courses and academic programs we offer. From the standpoint of sustaining the institution, we need the size of the student population to stay within a range where we are neither taxed beyond our capacity to deliver quality instruction and other services nor under-enrolled to the point where we lack the revenue needed to cover operational expenses. The revenue implications of enrollment will depend on the organization of our institution, including the total revenue (net

institutional financial aid) that we receive for each enrolled student and the marginal cost per additional student of providing instruction and other services (Bontrager, 2004; Hossler and others, 1990; Ward, 2005).

With so much at stake, the leaders of any college or university need to regularly evaluate the effectiveness of their enrollment management efforts. In this chapter, I present an overview of key aspects of enrollment management to be watched and suggest sources of benchmarking information which can be used to evaluate local performance in a broader context. I discuss readily available sources of benchmarking information, and note important issues where benchmarking data are either not available or are of uncertain value. I also discuss alternatives to external benchmarking, which can be useful in evaluating an institution's relative level of performance.

Some Notes on Benchmarking

As used in this volume, *benchmarking* refers to systematic comparison of aspects of an organization's performance with the performance of other organizations. For a benchmark to be useful it must address an important aspect of an institution's performance in a meaningful way. This depends both on the meaningfulness of the measure itself and on the relevance of the organizations against which the internal benchmark measure is compared.

Ideally, benchmarks can be developed against a carefully selected set of peer institutions so that differences in performance can't easily be explained away by differences in educational mission, size, governance structure, selectivity, size of endowment, geographic location, or other factors, which do significantly alter what is possible to achieve in enrollment management.

Of course, the ideal is not always available. In some cases, the best that is available are broad reference group measures, perhaps narrowed down by Carnegie classification and/or public or private control. In other cases, institutions voluntarily participate in data sharing, and the institutions we would most like to benchmark against choose not to participate in these exchanges. Following the adage that it is wise not to make the perfect the enemy of the good (Voltaire, 1764), it is more informative to compare institutional performance with benchmarks based on less-than-perfect comparison groups and to carefully consider the ways in which institutional differences may be slanting the results than to not look at comparative data at all.

In a few cases discussed in this chapter, comparison with other institutions is not readily available. If the measure is meaningful but cannot be benchmarked against other institutional results, then how can we evaluate such results in a way that can help identify opportunities to improve performance? Two strategies are available in such cases. We can benchmark internally, comparing results between programs, departments, or schools

where we expect consistent results. If the percentage of admitted applicants who enroll is much higher for history majors than for most other humanities programs, but much lower for philosophy majors, then we may want to learn what the former department is doing well and see if there are reforms that could improve the results of the latter. We can also compare current performance to historical performance levels. If in the past we received applications from 15 percent of students who submitted inquiry cards and in the most recent year we received only a 10 percent conversion of inquiry cards to applications, it is worth looking at what changed and how we might return to historical levels of performance.

All of the preceding comments suggest that benchmarking is a means to an end, and not an end in itself. The end is more effective management leading to better performance. Any process through which regular measures of meaningful aspects of performance are evaluated in a context that reveals opportunities to improve future performance is valid and valuable. In the remainder of this chapter, I will suggest ways to construct such a process for improving enrollment management. These suggestions will need to be adapted to the local context at each college or university, but attending to these measures will pay off for any institution where the goal is to educate students in an effective and efficient manner.

Scope of Enrollment Management

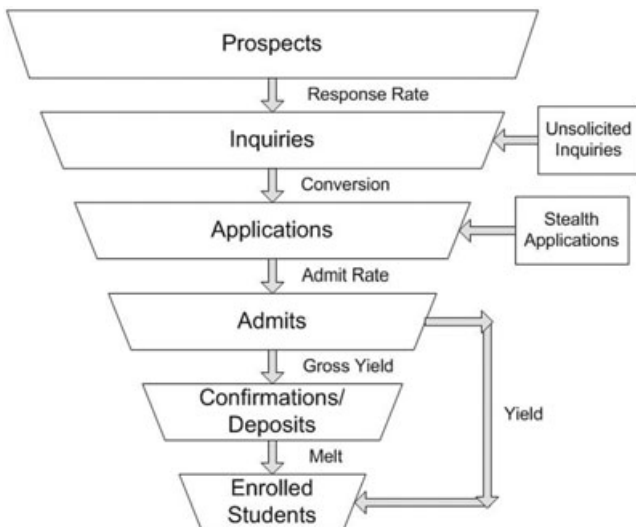
Enrollment management encompasses obvious functions, such as admission of new students, retention of continuing students, and student completion of and graduation from academic programs. The literature on enrollment management has focused primarily on the stages of admission and on retention and graduation rates, and these topics will be covered in depth in this chapter. Focusing solely on the longitudinal progress of students through these various stages, however, does not reflect other critical aspects of effective enrollment management. Not just if but also how students are able to progress successfully to graduation is important, and student progress often depends on financial support and always depends on the availability of the classes students need to complete their program requirements. The model for delivering these classes varies between institutions, and this has implications for the maximum enrollment capacity at an institution as well as the resources that will be needed to deliver the appropriate number of course sections. So a complete set of enrollment management benchmarks needs to address admissions, financial aid, student academic progress, and the organization of instructional resources into available classes. Retention and graduation benchmarks may provide an overall score of student success but don't by themselves reveal much about why students are or are not progressing.

Admissions. The stages of the admissions process are frequently described in terms of a funnel. At the top of the funnel are the recruited

potential students or prospects. These may be names purchased for mailing campaigns from the College Board or ACT, or the attendees at college fairs or other recruiting events. Some of these prospects respond, asking for information and/or instructions on how to apply. In this chapter those who ask for information are labeled as inquiries. Not all inquiries result in applications, so the number of applications is a smaller group represented further down the funnel. Similarly, in most institutions not every applicant is admitted, so admits are represented as a smaller group even further down the funnel. Of those admitted, a percentage will accept the offer of admission, either by submitting a required deposit or simply by completing a confirmation process to accept the offer of admission. This is the gross yield of admitted applicants. And, sadly, not every student who confirms actually enrolls, so the smallest block at the bottom of the funnel represents those students who actually matriculate (see Figure 3.1).

The rates of transition between various stages of the admission funnel are useful measures of enrollment effectiveness. The response rate from different prospecting activities can be calculated as the percentage of prospects who request information or an application. The percentage of prospects or inquiries submitting an application is the conversion rate. The percentage of applicants who are admitted is the admissions rate. The percentage of admitted applicants who accept admission (deposit or simply confirm) is the gross yield. The percentage of those who accept but ultimately don't matriculate is the melt rate. Finally, the percentage of admitted applicants who enroll is the admissions yield.

Figure 3.1. Admissions Stage Funnel



Tracking individuals and calculating these various ratios is relatively straightforward, with three important qualifications. First, it is important to ensure that you are counting individuals only once as an applicant, admitted, and enrolled student for a given admissions funnel even when they submit multiple applications to different programs. If you are evaluating the admissions funnel for all new first-time-in-college (FTIC) undergraduates, a prospect that submits applications for five majors, is offered admission to two of these programs, and accepts and matriculates as a double major is still only one prospect who yielded one matriculated student. Conversely, if you are evaluating the admissions funnel for a particular program, then an applicant who is not admitted into that program but ends up matriculating into a different program shouldn't be counted as enrolled in the program's funnel even though they are enrolled as part of a larger admissions funnel.

Second, when evaluating the overall effectiveness of prospecting activity, it is simple to divide the number of inquiries by the number of prospects, but doing so may be misleading because most colleges receive unsolicited inquiries from students visiting the college website, learning about a college in one of several college guides or online search tools, or learning about the college from family or friends. To gauge the effectiveness of prospecting efforts it is necessary to identify the prospects contacted and calculate the percentage of those prospects that made additional contact with the institution (response rate) or submitted applications (conversion).

Third, a similar issue occurs when the first contact a student makes with a college is to submit an application. Such applications are sometimes referred to as "stealth apps" because they are not on a college's radar until they drop their application. Simply dividing the number of applications by the number of inquires or prospects will overstate the efficiency with which prospects and inquiries are being converted to applications. Again, it is necessary to identify the population of prospects and then to identify what percentage of that population applied to evaluate the efficiency of prospect conversion efforts.

In terms of benchmarking, the FTIC undergraduate admissions rate and yield figures are freely available for any institutions submitting Integrated Postsecondary Education Data System (IPEDS) data.¹ This makes it possible for nearly any institution to identify a set of peer institutions that represent true market competitors and to evaluate how these rates compare.

At the top of the funnel there is not much publicly available information against which to evaluate your institution's performance. The consulting firm Noel-Levitz makes available several benchmark reports for enrollment management at the website www.noellevitz.com/papers-research-higher-education/enrollment-campus-planning/benchmark-reports-higher-education. From this site you can download their

Admissions Funnel Report, which contains information on four-year public and four-year private institutions that agreed to provide data to Noel-Levitz. It is difficult to know how comparable the institutions represented in these figures are to any individual institution, and they do not address two-year college admissions funnel rates. Still, for four-year institutions they provide a point of reference, which may be helpful in interpreting the institution's own admission funnel metrics.

The issue of limited comparison data at the prospect and inquiry end of the funnel may not be a severe limitation in practice. Most institutions engage in a variety of recruiting activities, and the most important question to answer may not be how these strategies fare compared to those employed in the admissions offices of other colleges, but rather which of these strategies provides your institution with the best or worst return on investment. If a careful record is kept of who is contacted in each prospecting effort and of the initial source of student-initiated contact, then it is a simple matter to calculate what percentage of each of these populations converted to an application, was admitted, enrolled, retained, and graduated. Knowing that particular prospecting efforts produce more enrolled students per dollar spent than other efforts may be the most important metric for improving admissions office performance and does not require external benchmark data. Knowing which recruiting efforts produce streams of enrolled students who are most likely to ultimately graduate makes it possible to connect selection of prospecting strategies with educational mission fulfillment.

The cost of prospecting campaigns is one aspect of another important benchmark for an admissions office operation: the cost of recruiting new students. Figures on admissions office costs per enrolled student are available in another Noel-Levitz report, *Cost of Recruiting an Undergraduate Student*. Here, data are available for two-year institutions as well as for public and private four-year institutions.

Beyond the number of students enrolled and the cost of recruiting them, the issue of the quality and composition of each new student cohort needs to be addressed strategically in enrollment management. Different colleges have a variety of goals concerning the populations they hope to serve, so this coverage of entering cohort benchmarks is not intended to be exhaustive, but simply to suggest some common and readily available benchmarks that may speak to the enrollment goals and educational mission of many colleges.

The most commonly available class profile statistics concern gender, race and ethnicity, standardized test scores, high school grades, and/or class standing. In IPEDS, the demographic composition of entering students is readily available for any set of peer institutions completing the mandatory annual report for Title IV financial aid-eligible institutions. IPEDS also makes available SAT and ACT twenty-fifth and seventy-fifth percentile figures, providing one measure of the level of academic preparation of entering students.

Information about high school grades and class rank of entering students is not available through IPEDS. However, this information is collected in the Common Data Set (CDS) used as a common source of data by many college guides. If the peer institutions of interest complete the CDS, you may be able to access a copy of this file from their websites, or obtain the desired information from one of the various college guide sites such as Peterson's or U.S. News.

For institutions committed to providing access to an economically diverse population, one useful benchmark may be the percentage of enrolling students who receive Pell grants. These federal grants are available to high-need students, and thus the percentage of Pell recipients is an indication of the relative proportion of high-need students enrolled at different institutions. This figure is available through IPEDS in the financial aid section.

Financial Aid. Financial aid data are not only useful in enrollment management for providing demographic profile information about the percentage of high-need students enrolled. Financial aid also plays an increasingly critical role in attracting new students and ensuring that students are able to continue on to degree completion. Financial aid can also significantly impact the net financial resources per student available to fund instruction and other services. In thinking about financial aid benchmarks from the perspective of enrollment management, we need to introduce a few key concepts at the individual student budget level, and then consider the cumulative impact of individual student awards on net revenue.

From a student's perspective, what college costs, the net price, equals the total cost of attendance at a particular institution minus the amount of grant and scholarship aid from all sources (federal, state, private, and institutional). Financial aid in the form of student loans or work study awards does not reduce net price, though it may make it easier for students and their families to pay the net price of attending college. Knowing an institution's net price relative to its market competitors is critical in order to understand the value proposition as perceived by potential students. Fortunately, the National Center for Education Statistics (NCES) now makes it easy to access the average net price of peer institutions through the College Navigator website, <http://nces.ed.gov/collegenavigator/>. In addition, if the mission of an institution includes affordability for students from a variety of income levels, this site also provides average net price for various family income ranges. This can be immensely valuable in understanding how your institution compares to peers in terms of affordability for students from a range of economic backgrounds.

How students cover their net price, in particular how much they rely on borrowing, may also be of concern to enrollment managers, particularly in an era where colleges with high default rates run the risk of losing access to federal student loans. Again, the College Navigator site provides ready access to the percentage of students receiving federal student loans

and the average loan amount received for your own and for peer institutions. The CDS provides additional information on debt loads, showing the average cumulative debt at graduation of students who took out loans and the percentage of graduates with loans. College Navigator provides data on student loan default rates for the three most recent cohorts.

Affordability matters in enrollment management because most students report that price and financial aid are important factors in deciding where to enroll. However, students cite academic quality as an even more important factor in selecting a college (Pryor, Hurtado, Saenz, and Korn, 2007), so comparisons of net price are most useful when the comparison institutions enroll students with a similar academic profile. Institutions may buy a better profile through more generous financial aid offers to offset lower academic reputation, but unless the high-ability students thus recruited are offered challenging high-quality classes and degree programs, such a strategy is unlikely to shift the academic reputation of the school, and removal of generous financial aid awards will result in the entering class profile reverting to previous levels (Baum and Schwartz, 1988). If your institution is able to maintain a comparable academic profile with other institutions that have a similar net price, this suggests that potential students view the value of your institution as on par with this peer set. If your institution has a significantly lower net price than similarly selective peers, it suggests either that there is the potential to raise net price and reap more net tuition revenue or else that your institution is not viewed as being of the same academic quality as the comparison institutions and requires a lower net price to attract similarly qualified students.

From an institutional perspective the resources needed to support high-quality educational programs typically come from three sources: spending from endowment earnings and annual gifts to the institution, government (primarily state) subsidies, and net tuition revenue after institutional grant aid. Many institutions, particularly private nonprofit colleges but increasingly public institutions as well, focus on the student discount rate, the percentage of gross tuition revenue given back in institutional grant aid. The National Association of College and University Business Officers (NACUBO) conducts an annual tuition discounting survey and issues a report that institutions can use to benchmark their own discount rate. Institutions that participate in the survey can access this report online at www.nacubo.org/Research/NACUBO_Tuition_Discounting_Study.html. Nonparticipating institutions have the option to purchase the report.

It is also possible to use IPEDS data to approximate the first-time-in-college (FTIC) discount rates of peer institutions. IPEDS data includes the percentage of FTIC students receiving institutional grant aid and the average grant amount of these recipients. Multiplying the average grant times the percentage receiving grants produces the average grant for all FTIC students. Dividing this amount by tuition and fees produces the first year in college discount rate.

The discount rate figure, however, may be less meaningful than simply calculating the average net tuition and fees per student, since a low priced college with a lower discount rate may still have fewer resources per student available to support instruction and other services. Ideally, we would like to know the total revenue from all sources available per student. It is possible to use IPEDS financial data to estimate this amount in one of two ways. One approach is to add the revenue sources of tuition and fees, federal, state, and local appropriations, investment income and gifts, and divide this total by student full-time equivalency (FTE). This approach is imprecise, since some of these funds may go to support operational expenses unrelated to academic program quality.

A second approach is to divide the total instructional costs by student FTE, assuming that institutions have identified resources to cover these expenses through a combination of the revenue categories specified above. The advantage of this approach is that it does not risk counting revenue diverted to other purposes than instruction as available for investing in academic quality. The disadvantage of this approach is that what counts as instructional expense may vary slightly between institutions, and some noninstructional expenses may actually support a high-quality educational experience at many institutions. The limitations for these financial measures may mean that a simpler benchmark such as net tuition revenue per entering student is a more useful measure for private nonprofit institutions. For public institutions, however, appropriations represent a significant proportion of enrollment-based revenue, so some attempt to provide the total revenue picture of the institution and its peers will be necessary to make the measure meaningful.

Student Academic Success. Of course, the goal in higher education is not simply to maximize net tuition revenue. Institutional success occurs only when students successfully complete a set of courses leading to completion of a degree or other educational objective. The most widely used benchmarks for measuring academic success, which are readily available through IPEDS, are the first-to-second-year retention rate and the graduation rate within 150 percent of nominal time to degree.

If students do not return in their second year, they are voting with their feet, indicating either that an institution's programs are not perceived to be of a high enough value to justify the net price they are asked to pay, or else that the student is unable to successfully complete the program. Knowing which of these factors is in play requires a closer look at the academic performance of nonreturners prior to their departure. If a high percentage of nonreturners were behind normal academic progress (earning significantly less than a full-time load's worth of credit if enrolled in a full-time program of study) or were below minimum grade requirements to continue in their chosen program of study, then lack of academic preparation and/or inadequate academic support once they enrolled would seem to account for attrition. If departing students are performing well academi-

cally, the cause of attrition is more likely to be that students did not perceive an educational value for the net price they are being asked to pay.

A useful way to confirm or refute such conjecture is to submit a list of students who dropped out before graduation to the National Student Data Clearinghouse matching service. If students who leave are either not showing up at all or are typically enrolling in less selective colleges (often two-year colleges with open admissions standards), this would be consistent with a population of students unable to meet the academic demands of your institution. If students leaving your institution without graduating are regularly showing up in colleges that are as selective or more selective, this suggests dissatisfaction with the value of the education they received for the money they were spending. Students who leave in good academic standing at high-priced institutions and show up enrolled in less expensive (often public) colleges regardless of the academic selectivity of those colleges may simply be unwilling to take on the financial burden necessary to attend your school.

Another way to look at the value proposition, one that directly relates to the investment in providing classes needed for students to complete their programs in a timely manner, is to look at the size of the gaps between on-time graduation and graduation within 150 percent of nominal time to degree. A four-year college that has a comparable six-year graduation rate with similarly priced peer institutions but a lower four-year graduation rate may represent a worse educational value because costs continue into the fifth or even sixth year, and because opportunities provided by graduation are not realized as quickly. If this pattern is coupled with higher average debt loads at graduation, then a college could improve its value to students and its affordability by finding ways to enable more students to complete their degrees on time.

Challenges in Interpretation of Benchmarks

A rich understanding of the key metrics for strategic enrollment management, including admission funnel statistics, retention and graduation rates, net revenue and instructional costs per student, and academic progress as measured by credit accumulation and grade point average, will allow the leaders responsible for enrollment at a given institution to focus on putting resources where they will most contribute to student success and financial sustainability. Being able to view these metrics against benchmarks drawn from comparable institutions speeds the process of identifying areas where an institution is not performing as well as can be expected, and where additional attention seems likely to result in improved performance. Using benchmark comparison groups that include a range of institutions both similar and dissimilar to one's own can still suggest areas where local results can be improved, but using such benchmarks requires more careful interpretation. For this reason, carefully pulling data on an

identified peer set from IPEDS or participating in consortium data-sharing efforts where custom peer set reports are available can often be worth the additional cost and labor involved.

However, when pulling select peer data for comparison, it is important to consider the consistency of data definitions across institutions. Where standards such as IPEDS definitions are clear (defining a first-time degree-seeking undergraduate cohort, for example) and your institution can easily submit accurate data, it is reasonable to assume that other institutions do so as well. Where definitions are under local control (such as what constitutes satisfactory academic progress), it is helpful to inquire at other institutions about how they defined their submitted data before interpreting your performance against the benchmark. As with most things in the world of institutional research, there is an unavoidable trade-off between level-of-effort and precision, and how far to go in vetting benchmarks needs to be evaluated against the potential impact of the benchmark for improving institutional performance.

What's Not Available for Comparison with Comparable Institutions?

Sometimes there are no reasonable external benchmark data available. In such cases, the metrics may still be usefully evaluated against internal reference groups. There are two types of internal reference groups to consider: subpopulations and historical performance.

An example of subpopulation benchmarking involves comparing the conversion rate of different prospecting efforts. In this case, it may be more useful to know that prospects purchased from a national testing organization using particular search criteria produced higher conversion rates than prospects purchased from an online college search site, or that mailing a postcard followed by an e-mail produced a conversion rate of 5 percent, while e-mail alone produced only a 4 percent conversion.

Other key metrics where internal comparisons are an important type of benchmark include yields of admitted applicants by various demographic, financial aid, and academic characteristics. Knowing how the yield of in-state students compares to yield of out-of-state students is informative. Knowing how yield differs by the intersection of institutional grant amount and level of demonstrated need can help in developing an awarding strategy. Seeing how retention and graduation rates vary by academic profile information can inform admissions decisions.

Historical comparisons are also important in order to keep strategies current with changing circumstances. In recent years, undergraduate yields have generally been going down as students respond to uncertainty by applying to a larger number of colleges. Plotting the yield trend line for your institution will help you adjust your expectations for the upcoming admissions cycle.

Of course, you can combine external, subpopulation, and historical benchmarking approaches. If you have a yield trend line plotted for your institution overall, it would be informative to see how that trend line might differ for in-state and out-of-state applicants. You can also find national yield trend-line data from sources like Noel-Levitz that, while not controlling for institutional characteristics the way a selected peer set would, can at least show how typical your changes in yield are compared to other institutions.

Conclusion

Enrollment management is a complex activity that entails recruiting new students into quality programs with reason to expect they will successfully complete these programs. In order to accomplish these objectives, institutions need to make strategic use of scarce resources. The use of appropriate benchmarks can help an institution identify areas of enrollment management where they are underperforming. Focusing on these areas of unexpectedly low performance can guide institutions on the path toward improved enrollment and student success. These benchmarks do not replace rich institutional and contextual knowledge, but they help enrollment management leaders focus their attention on critical issues.

Note

1. Using IPEDS data tools is beyond the scope of this article. Fortunately, excellent resources are available on the AIR website, www.airweb.org/EducationAndEvents/IPEDSTraining/Pages/default.aspx

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