

A ROAD MAP FOR MEASURING GRADUATE ENROLLMENT MANAGEMENT SUCCESS

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The dynamic and complex landscape of higher education requires colleges and universities to annually achieve enrollment goals to fulfill institutional objectives and sustain economic vitality. Data-driven decision making supports the ability of institutions to attain success in a highly competitive marketplace. As such, campus stakeholders have placed significant emphasis on the measurement of enrollment outcomes.

While it has been suggested that “enrollment management is as much an art as it is a science” (Ward, 2005), a scientific approach to strategic enrollment planning is the focus of this article. Frequently absent from comprehensive enrollment plans is a methodology for measuring strategic enrollment indicators (also referred to as key performance indicators) as well as determining whether goals have been achieved. This article provides a road map for enrollment management leaders to effectively define, measure and articulate enrollment successes and challenges. *Figure 1* offers a graphical representation of this process which will be discussed in detail below.

DEFINE SUCCESS: On What Basis Will Success be Measured?

Before an assessment methodology can be constructed, enrollment goals and priorities should be defined. Every institution has a unique set of enrollment drivers which depend on a variety of factors including an institutional vision and market niche (Ward, 2005). The vision of an institution informs enrollment and tuition revenue targets for funding strategic priorities and its direction for the future. Therefore, the process of establishing goals should be collaborative and include campus leaders with a vested interest in enrollment and financial outcomes. The market position of an institution also contributes to the process of establishing realistic and attainable enrollment goals given the competitive climate for attracting and enrolling prospective students.

Strategic Vision and Priorities

A vision statement articulates strategic priorities and sets the trajectory for what an institution aspires to become. Continuing and prospective students are commonly the focal point of institutional vision statements. Therefore, enrollment leaders have the opportunity to support their institution in fulfilling its vision each

term for which it enrolls new students. For example, an institution that aims to enter an emerging or niche market, advance its global footprint, or better serve specialized student populations should define enrollment goals for accomplishing these objectives. Well-defined enrollment goals position the institution to effectively allocate financial resources for funding institutional priorities.

Benchmarks

Surveying the competitive marketplace helps to identify internal and external threats, challenges, and opportunities that impact the potential for enrollment success. Changes in the local, national, or international marketplace can significantly impact enrollment outcomes. Economic, regulatory, or demographic conditions can impact the potential for enrollment success. Similarly, internal conditions within the institution, such as the introduction of new academic offerings or instructional delivery systems, can contribute to enrollment gains. A SWOT (strengths, weaknesses, opportunities, threats) analysis should be conducted to identify these conditions and set enrollment goals accordingly. Additionally, a SWOT analysis is useful for evaluating the market position of an institution and

Figure 1: Road Map for Measuring Success in Graduate Enrollment Management

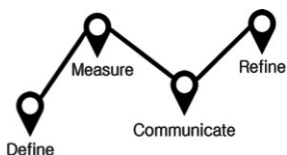


Figure 2: SWOT Analysis

	Strengths	Weaknesses
Internal	<ul style="list-style-type: none"> Geographic location Knowledge of customer needs Quality of academic programs Renowned faculty 	<ul style="list-style-type: none"> Antiquated technological systems Significant organizational bureaucracy Organizational redundancy
	Opportunities	Threats
External	<ul style="list-style-type: none"> Strong brand recognition Perceived value of education Rising institutional ranking Perceived institutional reputation New academic offerings Decentralized budget model 	<ul style="list-style-type: none"> Rising cost of tuition Reduction in state appropriations Changes to U.S. Department of Education requirements

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for capitalizing on emerging market opportunities. *Figure 2* offers an example of a SWOT analysis conducted for a public, research university.

While assessing the external environment may prove challenging, secondary data sources are widely and publically available. Sources such as the Integrated Postsecondary Data System (IPEDS) and those maintained by state departments of education provide comprehensive enrollment data for benchmarking against competitor, peer, and aspirant institutions. Additionally, the data published by ranking agencies such as *U.S. News & World Report* can be used to conduct comparative analyses using metrics such as faculty to doctoral student ratio. For instance, an institution may wish to influence this ratio by increasing the admission selectivity of doctoral program applicants in an effort to enhance its ranking. Doctoral student admission and enrollment goals would then be reflective of this strategy.

Resource Allocation and Expenditure per Full-Time Equivalent (FTE)

As enrollment grows so does the expenditure related to services and resources required to support student success, satisfaction, and retention. To ensure a sustainable rate of enrollment growth, the capacity and expenditure required for the institution to provide these critical services should be considered. Enrollment growth that exceeds the capacity to provide adequate services and quality learning outcomes can lead to an increased rate of student attrition. Detrimental economic and reputational effects may also result from reduced student satisfaction.

In the example presented in *Figure 3*, an institution plans to increase new graduate student enrollment by 300 students over a three year period, while maintaining the employment of 50 full-time faculty. This increase in enrollment results in six additional full-time equivalent (FTE) students per full-time

Figure 3: FTE: Faculty Ratio as Enrollment Increases

	Year 1	Year 3
Full-Time Equivalent (FTE) Student Headcount	500	800
Full-Time Faculty	50	50
FTE : Faculty Ratio	10	16

Figure 4: Net Profit as FTE: Faculty Ratio and Resource Allocation Increases

	Year 1	Year 3
Full-Time Equivalent (FTE) Student Headcount	500	800
Net Tuition Revenue ¹	\$9,000,000	\$14,400,000
Full-Time Faculty	50	80
FTE : Faculty Ratio	10	10
Total Faculty Compensation ²	\$5,000,000	\$8,000,000
Net Profit	\$4,000,000	\$6,400,000

¹Tuition rate is \$1,000 per credit hour at 18 credit hours per FTE.

²Compensation is \$100,000 per faculty member (Faculty Salaries, 2014).

faculty member. An increased FTE to faculty ratio may threaten the quality of instruction and learning outcomes of students. Thus, the capacity to provide quality learning experiences should be considered when setting a goal to achieve exponential enrollment growth.

Figure 4 further demonstrates the impact of enrollment growth on net profit when an institution invests in faculty hiring to maintain a ratio of 10 FTE students per faculty member during this timeframe. In this example, enrollment management leaders should consider the increased expenditure required to maintain quality of instruction (represented by FTE to faculty ratio) when establishing enrollment targets. Although net profit has increased from Year 1 to Year 3, additional faculty must be hired to maintain quality instruction thus increasing compensation expenditure. Although this example admittedly oversimplifies the costs of educating students, the impact of enrollment growth on the campus community (both faculty and students) should

be considered when setting goals. In summary, the cost of education per FTE lends critical insight into the net benefit of enrollment gains.

Enrollment Patterns

An evaluation of the overall continuing student population provides valuable insight when setting incoming student enrollment goals. A better understanding of continuing student enrollment patterns such as time to degree (average number of terms to graduate), anticipated graduation cycles, and the rates of degree completion and retention should be measured and used to inform incoming student enrollment goals. This information helps establish goals that offset potential enrollment declines from student attrition.

It is also useful to determine the percentage of continuing students enrolled on a full-time or part-time basis. Institutions may wish to establish a goal to enroll more full-time students

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to enhance credit hour generation and shorten time to degree. Furthermore, the analysis of student enrollment patterns provides evidence whether progress is being made toward achieving learning outcomes and minimizing student indebtedness (Ward, 2005).

Admissions Funnel

The ability to accurately project enrollment is invaluable for effective financial decision making and campus planning. When forecasting enrollment, past performance serves as one of the best predictors for future success (Ward, 2005). To enhance the accuracy of enrollment projections, goals should be set at each stage of the admissions funnel. This allows for incremental monitoring to determine if there is unexpected deviation from the goal at a specific stage of the funnel. A standard admissions funnel, as represented in Figure 5, illustrates the stages by which a student enrolls.

Additionally, targets should be established for key metrics such as the rates at which prospective students submit a complete application and admitted students become enrollees. Both metrics are critical for determining the successful progression of prospective students throughout the admission process. Historic rates of application completion and enrollment yield serve as the optimal baseline for goal-setting and projections for future admission terms. Figure 6 offers a method for tracking admission metrics and comparing actual performance against the established goal.

Frequently absent from strategic enrollment management plans are acceptance rate targets. Understandably, acceptance rates are contingent upon the volume and quality of complete applications submitted. However, there are several noteworthy reasons acceptance rate targets should be set. Acceptance rate is the only stage of the admissions funnel which is fully controlled by the institution. While there are many

Figure 5: Standard Graduate Student Admissions Funnel

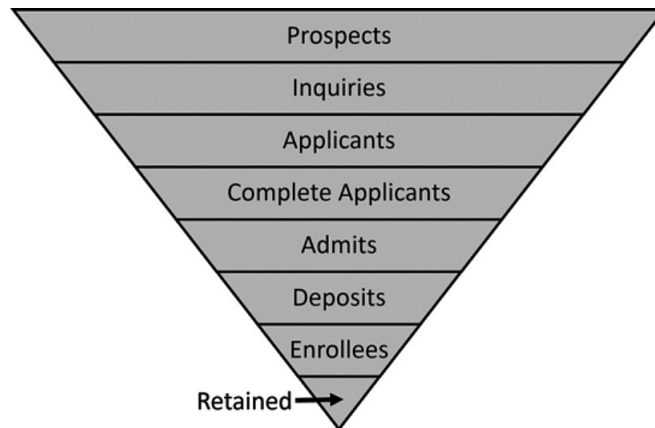


Figure 6: Goal-Setting at Stages of Admissions Funnel

	Goal	Actual	Difference (N)	Difference (%)
Applications Received	800	850	+50	+6.25
Complete Applications Received	680	697	+17	+2.5%
Admitted	340	349	+9	+2.6%
Deposits Received	153	170	+17	+11.0%
Enrollees	145	156	+11	+7.6%
Application Completion Rate (Complete Applications/Applications Received) X 100	85.0%	82.0%		-3.0%
Acceptance Rate (Admitted/Complete Applications) X 100	50.0%	50.0%		0.0%
Admitted to Deposit Yield Rate (Deposits Received/Admitted) X 100	45.0%	48.7%		+3.7%
Deposit to Enrollee Yield Rate (Enrollees/Deposits Received) X 100	94.8%	91.8%		-3.0%
Admitted to Enrollee Yield Rate (Enrollees/Admitted) X 100	42.6%	44.7%		+2.1%

effective strategies for increasing the number of students who progress through the admission process, only acceptance rate can be influenced by application evaluation and rendering admission decisions. Additionally, admission selectivity is a perceived quality indicator to prospective students and ranking agencies such as *U.S. News & World Report*. Figure 6 provides an example for recording the rates of application completion and admitted student yield.

Graduate Enrollment Management and Organizational Structure

The enrollment management and organizational structure of an institution may require goals to be defined at the academic program, department, school or college, and/or institution-wide level. "Micro-level" goal-setting helps to better facilitate collaboration and support mutual understanding between all those involved in enrollment management

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activities. For example, institutions with decentralized budget models place financial responsibility for enrollment goal attainment at the school or college level. In these models, enrollment goals should be established at both the academic program and school or college levels. Additionally, goals should be set in collaboration with academic units responsible for financial decision making and tuition revenue generation.

MEASURE SUCCESS: Have Enrollment Goals Been Achieved?

Once enrollment goals have been well-defined and a strategic plan has been executed, analysis can be conducted to evaluate the effectiveness of enrollment management activities and determine whether goals have been achieved.

Key Performance Indicators

While the diversity and quantity of available metrics may seem overwhelming, key data points that lend critical insight for effective strategic and financial decision making should be selected for measurement. Both quantitative and qualitative measures should be used to provide a comprehensive understanding of the behavior of applicants throughout the admission process as well as the demographics and academic profile of enrollees. *Figure 7* provides an example of student-centered key performance indicators and a process for assessing enrollment outcomes. This dashboard can be used for determining what will be assessed, the methodology to be utilized, and how frequently the assessment will occur (Ward, 2005). While the metrics presented in *Figure 7* are not inclusive of all data points that lend insight as to the effectiveness of enrollment management activities, this example offers an approach for recording the assessment process and evaluation of key performance indicators.

Application Completion Rate

In addition to student-centered key performance indicators, other quantitative metrics help to identify areas of success

Table 7: Assessment Process Using Student-Centered Key Performance Indicators (Ward, 2005)

Enrollment Plan		Assessment Process			
Goal	Strategy	Assessment Frequency	Key Performance Indicator	Measurement Methodology	Assessment Results
Increase enrollment headcount by 5% by 2015.	Managed growth.	Annual	Enrollment headcount using official census data.	Quantitative. Enrollment headcount census report.	Has enrollment headcount increased?
Increase out-of-state enrollment by 3% by 2015.	Implement targeted national recruitment and marketing efforts.	Annual	Student geographics. Residency status.	Quantitative. Enrollment headcount census report.	Has out-of-state enrollment increased?
Increase enrollment of students who value and embody the mission of the institution.	Implement targeted recruitment efforts at undergraduate institutions with similarly aligned missions.	Quarterly	Student psychographics. Undergraduate institutions previously attended.	Quantitative and Qualitative. Focus groups. New student surveys. Enrollment data demonstrating previous institutions attended.	Has the campus climate changed? Has academic performance, student satisfaction, or retention rates increased?

in managing the stages by which prospective students progress through the admission process. Evaluating the rate at which students submit complete applications for admission helps to determine whether students are experiencing difficulty completing the application process. For instance, students may fail to complete applications if they are unable to successfully submit supplemental admission documents. If completion rates are lower than expected, steps should be taken to streamline the application process or enhance communication sent to incomplete applicants to encourage completion. Additionally, the application completion rate is important for estimating the interest level of applicants. Increasingly, the submission of an application is a student's first source of inquiry. Therefore, assessing the application completion rate can more accurately inform whether submitting an application demonstrates general interest or strong interest in enrolling.

Admitted Student Yield Rates

Evaluating the rate at which admitted students decide to enroll offers critical information about the effectiveness of yield management strategies, competitiveness of admission offers, and perceptions of institutional quality. Conducting focus groups

and/or surveying admitted students (both enrollees and non-enrollees) are effective methods for gauging the influence of these factors on a student's decision to enroll. Qualitative assessments can provide useful insight regarding the competitiveness of admission offers and effectiveness in leveraging tuition discounts (e.g. scholarships, tuition remission) as a yield management strategy.

Financial Key Performance Indicators

While achieving enrollment headcount goals is important, net tuition revenue goals must be met for institutions to effectively sustain economic vitality. Thus, enrollment leaders should understand and embrace the importance of net tuition revenue for measuring successful enrollment outcomes. Net tuition revenue is calculated as follows:

$$\text{Net Revenue} = \text{Gross Tuition} - \text{Discount}$$

The discount is any institutional tuition dollars or other funding sources used to support student financial aid. When the tuition net revenue goal is achieved or exceeded, an institution has available financial resources to fund strategic priorities for the fulfillment of its vision. However, when net tuition revenue goals are not met, an institution must

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make difficult decisions in deciding how to reduce expenditures to offset the financial shortfall (Ward, 2005).

In addition to tuition discounts, other expenditures should be taken into consideration when measuring enrollment success. Return on investment (ROI) is a financial calculation that compares net revenue against the total costs required for the revenue to be generated. Return on investment is calculated as follows:

$$\text{ROI} = \frac{\text{Net Tuition Revenue} - \text{Total Cost}}{\text{Total Cost}} \times 100$$

Figure 8 offers an example where net tuition revenue and return on investment are calculated for a graduate college at a large, public institution.

COMMUNICATE SUCCESSES AND CHALLENGES: How Should Successes and Challenges Be Shared and Articulated?

The measurement of enrollment outcomes is not only important to enrollment leaders, but to key stakeholders who depend on enrollment data to make informed strategic and financial decisions. A high level summary of progress towards enrollment goals should be provided to collaborators whose buy-in and support is essential for future success and continuous improvement. Additionally, challenges and roadblocks that impede future successes should be identified and communicated to promote transparency, mutual understanding, and shared expectations. In doing so, enrollment leaders will discover common goals among key campus partners (Ward, 2005).

REFINE FOR FUTURE SUCCESS: What Improvements Must Be Made to Achieve Success in the Future?

Enrollment leaders should seek opportunities to refine enrollment

Figure 8: Example of Net Tuition Revenue and Return on Investment (ROI) Calculations

	Year 1	Year 2
Gross Tuition Revenue	\$10,000,000	\$15,000,000
Operational Expenses (e.g. Marketing, Recruitment, Lead Generation)	\$500,000	\$750,000
Tuition Discounts (e.g. Scholarships, Tuition Remission)	\$500,000	\$750,000
Total Costs/Investments (Operational Expenses + Tuition Discounts)	\$1,000,000	\$1,500,000
Net Tuition Revenue (Gross Tuition Revenue - Total Costs)	\$9,000,000	\$13,500,000
Return on Investment (ROI)	800%	900%

management strategies. To plan future direction, goals should be monitored annually and strategies assessed to determine whether adjustments or resources may be required to improve performance. An assessment plan should occur annually with regular monitoring throughout the admission cycle. When annual assessment becomes part of the institutional fabric, the outcomes can be used to inform and influence decision makers. This information may result in the redistribution of existing resources or the investment of new resources (Ward, 2005).

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Conclusion

In the competitive and ever-evolving marketplace of higher education, demonstrated results will continue to drive the success of colleges and universities. Therefore, enrollment leaders must be equipped with a step-by-step model for developing, tracking, and assessing the enrollment and

tuition revenue outcomes. These results should be synthesized and articulated to key campus stakeholders to foster shared understanding and support for enrollment management initiatives. ■

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