Establishing and Operationalizing Enrolment Goals: A Data-Driven Methodology

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ESTABLISHING AND OPERATIONALIZING ENROLMENT GOALS: A DATA-DRIVEN METHODOLOGY

If your college or university is drowning in data but starving for information useful to the development of realistic and data-driven enrolment goals, this paper offers valuable insights that may be of assistance to you. Enrolment goals are foundational to the development of a strategic enrolment management (SEM) plan. Well-defined enrolment goals give direction to the collective effort in developing enrolment strategies and tactics at the operational level, allocating institutional resources, as well as in assessing goal achievement at the strategic level. However, all too often, enrolment goals reflect institutional 'aspirations' more than the 'realities' derived from a data-driven goal-setting process. In this paper, a data-driven enrolment goal-setting model is described, as well as a step-by-step process for its application.

The paper is organized into two sections. The first section discusses the importance of 'intelligence' information (i.e., research, data, and analytics) in the strategic management of enrolment, followed by a description of a data-driven enrolment goal-setting model that applies a 'systems' (worldview) perspective using four lenses: business intelligence, external forces, capacity conditions, and vision-based institutional aspirations. This section ends with a brief discussion of the organizational capacity conditions that are foundational to the successful implementation of the model. The second section presents a methodology for the application of this model. An inclusive, consultative process is described for aligning vision-based institutional enrolment aspirations with the capacity conditions of academic divisions (people, technology, facilities), and the capabilities of service units. Following from this process, plausible enrolment goals are established for which performance improvement strategies can be formulated and linked to resource allocation decisions. Throughout this

paper, critical questions are presented as a guide for applying the enrolment goal-setting process, potential variables and performance indicators are suggested, and practical tips for campus leaders are offered in fostering an integrative and data-driven approach to the enrolment goal-setting process.

I. THE IMPORTANCE OF 'ENROLMENT INTELLIGENCE'

A fundamental principle underlying the theory and practice of strategic enrolment management is that it is research and data-driven. Increasingly, sage campus leaders are recognizing that to create the conditions for sustained enrolment success over time, research and data are critical to establishing enrolment goals, informing the development of enrolment strategies, managing daily performance of strategies employed to assess where interventions are needed, strategically allocating resources where the highest potential return on investment (ROI) exists and to monitoring progress toward goal attainment. The crux of the enrolment goal-setting model presented in the section that follows requires investments in the development of enrolment 'intelligence' information. Therefore, it is instructive to provide a general introduction to the meaning of the term and its importance to the discussion of enrolment goal-setting.

Within the corporate sector, applications that support fact-based decision-making, organizational performance management and competitiveness are commonly referred to as 'business intelligence' or 'competitive intelligence'. The definition of these terms has been applied liberally within the literature, and therefore can mean different things to different people. For the purposes of this discussion, business intelligence systems refer to the collection, storing, integration, analysis, reporting, and use of research and data on the organization's internal operations and external environment to inform strategic planning, decision-making, and resource management. Effectively applied, these types of information help to bring a strategic and 'systems' perspective (sometime referred to as a worldview) to organizational planning at all levels.

Within the higher education context, these types of capabilities are increasingly referred to as 'enrolment intelligence', 'action analytics', and associated variants on these terms such as 'actionable intelligence', 'strategic intelligence', 'academic analytics', 'student success analytics', to name a few. For the purposes of discussion here, the term 'enrolment intelligence' has been adopted as well as two variants on the term:

- 'Actionable intelligence'— referring to the generation of the right information, for the right people, at the right time, to inform enrolment performance management at the operational level (e.g., at the recruiter level), and
- 'Strategic intelligence'— referring to the effective use of intelligence information to inform the broader aspects of SEM planning including, but not limited to, enrolment goal-setting, strategy development, operational performance management, assessment of ROI, resource allocation decisions, and continuous improvement processes.

Regardless of the terminology used, what is common to both the public and private sectors is the recognition of the critical importance of decision-support information to ensuring the sustained vitality and competitiveness of an organization. In fact, how an organization measures, analyzes, reviews, and improves its performance through the effective use of research and data are among the seven criteria associated with quality and performance excellence in higher education defined under the Malcolm Baldrige Education Criteria for Performance Excellence.[9] Yet there is abundant literature that substantiates that many (if not most) colleges and universities operate with only rudimentary data analysis and reporting capabilities.[1-8]

The state of affairs in higher education on the use of analytics and business intelligence systems in the practice of SEM was described well by noted international thought-leader, Don Norris, in a 2008 white paper. [6] He wrote: "Most colleges and universities are awash in data. Unfortunately, they lack the capacity to seamlessly turn their data into meaningful information. Nor can they easily access, combine, and repurpose that information to support

analysis, drive decision making, and improve student success. In many cases, the data they need are hiding in plain sight."

Norris' observations echoed the results from a 2005 EDUCAUSE members study conducted by Goldstein and Katz[4] on the use of 'academic analytics' within the higher education context. On the basis of their research, the authors observed that most respondents to their study applied only rudimentary levels of analytics associated with the monitoring and reporting of transactional data. These forms of intelligence were depicted well by Davenport and Harris (2007) as useful for 'reactive' but not 'proactive' decision-making, as shown in *Figure 1*. Of particular note from these researchers, among others, is that while the technical capacity for institutions to use more advanced levels of analytics and reporting tools was increasingly within reach, the primary constraints were in the cultures of institutions, behaviors and predispositions of institutional leaders.

Figure 1: Typology of Intelligence Information

The progression from reactive decision making to proactive decision making.

Source: Davenport & Harris (2007). *Competing on Analytics: The New Science of Winning.*

Within an enrolment management context, the reality for many institutions is the inability to transform available research and data into 'strategic' and 'actionable' intelligence through the application of advanced analytic and reporting capabilities for such purposes as:

a) Defining 'optimum enrolment capacity' at a sufficiently granular level to inform resource allocation decisions and realize net revenue imperatives,
b) Understanding the complex factors that influence college choice, student persistence and academic success, and
c) Informing the development of enrolment goals and strategies linked to operational performance management and assessment of ROI for strategies employed[6,8].

With that said, there is a growing base of literature that suggests that the pace of developments in these areas is rapidly on the rise as institutions grapple with competitive pressures, financial exigencies, and increasing calls for accountability. Significant advancements have been made by a cadre of leading-edge colleges and universities in the use of enrolment intelligence systems, such as in the development and use of **predictive enrolment models** for qualifying inquiries and applicants on their likelihood of academic success, **early alert systems** for identifying students at risk, **resource allocation models** tied to enrolment, as well as **performance-based reporting** systems (e.g., executive scorecards, recruitment and admissions performance dashboards).

Developing an understanding of the capacity conditions for success in enrolment performance measurement at public leading-edge institutions became the focus of this author's doctoral research and dissertation[10]. On the strength of this research, it was learned that the success of such efforts was more a function of **strategic leadership** than a function of acquiring technology solutions. Among the most notable insights drawn from the study results was the unequivocal importance of strategic leadership in (a) managing differences in organizational culture value orientations, (b) managing the human dimensions of change, and in (c) fostering an inclusive planning process that engaged faculty and staff at the early stages of the development process. Lessons learned by this author from this best practice-based research, as well as from the field as both a SEM professional and consultant are infused throughout the sections which follow.

THE FOUR LENSES OF ENROLMENT GOAL SETTING

Enrolment planning becomes strategic when it is an integral component of institution-wide planning and resource management processes, fused with the academic enterprise, and when it advances transformative change[11]. For this reason, enrolment planning must look outward and forward, and typically begins with an environmental systems assessment of internal and external trends from which institutional enrolment planning parameters are established in relation to the following:

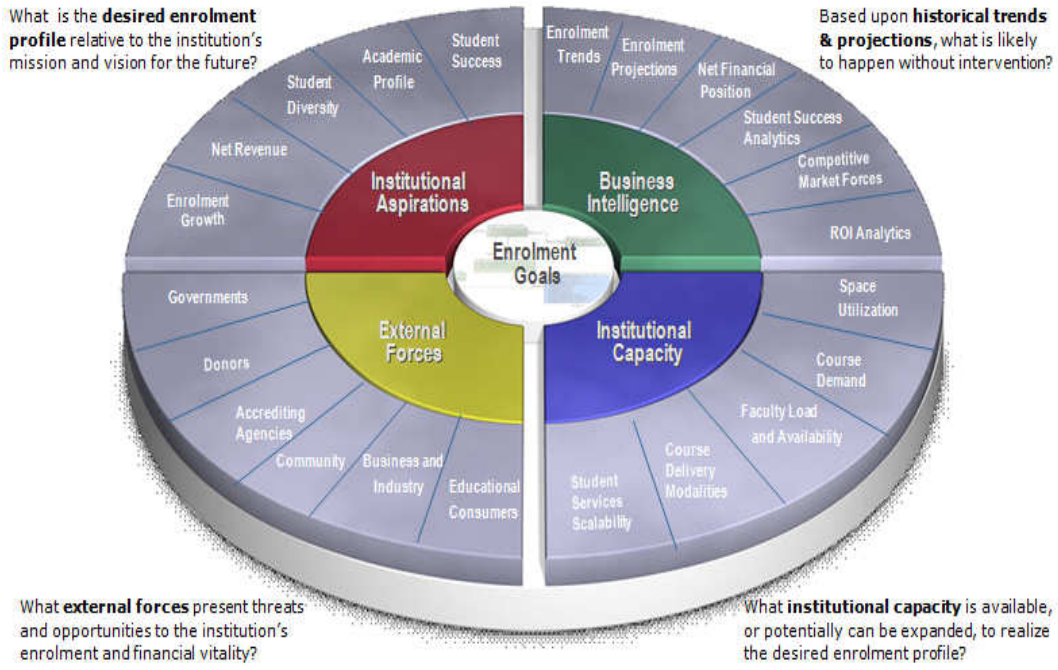
- The OPTIMUM LEVEL OF ENROLMENT (e.g., quantity, net revenues) the institution desires to realize in consideration of institutional financial imperatives and organizational capacity conditions;
- The DESIRED STUDENT PROFILE (e.g., quality, diversity, retention, performance, graduation) in consideration of the institution's mission and mandate, as well as priorities for quality and access; and
- The DESIRED ACADEMIC PROFILE (e.g., discipline/credential mix, instructional delivery modalities, competitive positioning) in consideration of the institution's student and industry needs, instructional and institutional capacity, political pressures, and competitive context.

Identifying enrolment goals is an **imprecise science**, and goal-setting is markedly different than projecting enrolment outcomes. In point of fact, projections are formulaic in nature and often do not account for the efforts of the institution. Conversely, enrolment goals more broadly consider data and other factors that reflect the contextual reality (past, present, and future) as well as institutional aspirations, constraints, and planned initiatives. The enrolment goal-setting model depicted in *Figure 2* reflects a comprehensive, data-driven, and systems approach to establishing enrolment targets that applies a four lens systems perspective including: (1) a clear articulation of institutional aspirations, (2) available business intelligence, (3) an analysis of institutional capacity, and (4) an understanding of external forces.

Foundational to this model are **four strategic research questions** that serve as **planning filters or lenses**. The research questions bring into balance environmental factors both internal and external to the institution that are likely to impact enrolment into the future, and include:

1. What is the desired enrolment profile relative to the institution's mission and vision?
2. What external forces present threats and opportunities to the institution's enrolment and financial vitality?
3. Based upon historical trends and projections, what is likely to happen without intervention?
4. What institutional capacity (academic divisions and student support services) is available or potentially can be expanded to realize the desired enrolment profile?

Figure 2: The Four Lenses of Enrolment Goal-Setting



The enrolment variables portrayed in *Figure 2* reflect only a few that may be used in undertaking an environmental systems assessment. Determining what variables are

important for your institution's enrolment planning purposes should stem from your institution's strategic plan and planning process. A framework for identifying possible variables that may be of use to the enrolment goal-setting process is presented in *Figure 3*. While all of these variables may be of interest, the challenge is to identify the core variables of greatest relevance within your planning context.

Figure 3: Framework for Defining Enrolment Goal-Setting Variables

STRATEGIC RESEARCH QUESTIONS	POTENTIAL VARIABLES TO CONSIDER		
Aspirations **What is the desired enrolment profile relative to the institution's mission and vision for the future?**	• Size • Quality/Admission selectivity • Student diversity mix • Program/Discipline mix	• Credential mix • Academic performance • Retention • Graduation	• Education outcomes • Learning outcomes • Net revenues
External Forces **What environmental forces present threats and opportunities to the institution's enrolment and financial vitality?**	• Population demographics • Education participation • Government policy context • Economic context • Business & industry outlook	• Occupational demand • Labor context • Values of educational consumers • Competitor context • Community needs	• Donors • Funders • Accrediting bodies
Business Intelligence **Based upon historical trends and projections, what are the options to realize the desired enrolment profile?**	• Reputation & image • Competitive market forces (market share, pricing) • Applicant demand • Enrolment trends • Enrolment projections	• Student flow analyses • Student success analytics • Net financial positioning • Cost analyses (break-even, cost of a lost seat)	• Resource optimization indicators • ROI on marketing, recruitment, & retention programs
Institutional Capacity **A. What academic capacity is available or potentially can be expanded to realize the desired enrolment profile?**	• Space utilization (class/lab rooms & seats) • Course demand • Service course dependency • Faculty load & availability	• Course delivery modalities (in-class, online, blended) • Research infrastructure • Capacity to invest in program development & renewal	• Instructional development support • Library resources
B. What is the capability of service units to realize the desired enrolment profile?	Service unit 'scalability': • Marketing inquiries/$ spent • Recruitment/applicant/ admit conversion rates • Admission/enrolment yield rates	• Registration wait times • Student unmet financial need • Advisor/advisee loads • Student learning support services backlogs	

Following from the identification of enrolment planning variables, the required enrolment intelligence can be determined that is associated with each, as well as the potential sources from which the information can be derived (e.g., internal databases and reporting systems, market research, environmental scan of secondary sources). A data/research and analytic reporting strategy subsequently can be developed to identify and address gaps and opportunities for the collection, analysis and reporting of the requisite information, associated capacity requirements, and priorities for development over time.

As stated previously, many institutions are recognizing the need to invest in research and data, and to build the capacity for more advanced levels of intelligence information useful to strategic and operational decision-making. In considering today's rapidly changing higher education context, the real question for campus leaders is, can you afford NOT to?

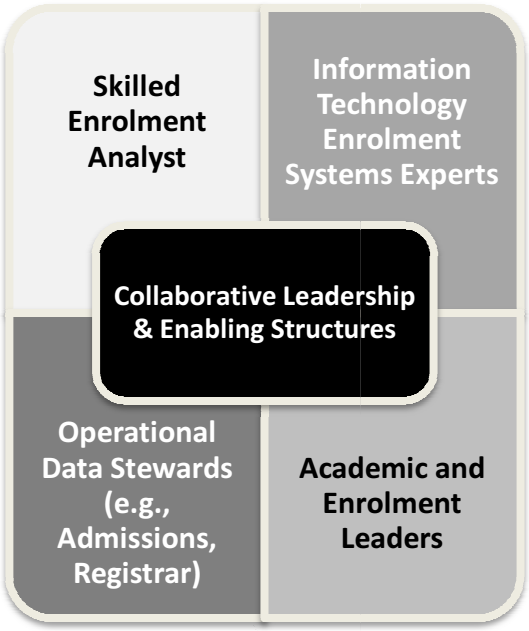
Regardless of the level of sophistication of the enrolment intelligence at hand, it is important that you **begin the journey** by (a) **communicating** the importance of research and data to the vitality if the academic enterprise, (b) **engaging** campus constituents in identifying the critical research questions to inform enrolment goal-setting and planning, (c) **assessing** what data are available and accessible for the purposes at hand, (d) **investing** in building the capacity for more advanced enrolment intelligence systems over time, and (e) **fostering a culture of evidence** in the use of enrolment intelligence in decision-making at all levels.

Through this process, you may find that you are 'richer than you think' in your information assets. This process can also lead to the discovery of options and alternatives using secondary sources of information that may be drawn upon to supplement and reinforce available internal intelligence information and/or to serve as a proxy until such time as internal information can be generated. When embarking on this journey, you need to assess whether the **foundational organizational capacity conditions** for success are in place. At a minimum, these include:

1. Collaborative leadership
2. A skilled enrolment analyst
3. Support and commitment from operational data stewards
4. Enabling governance structures
5. Demonstrated commitment of campus leaders

As shown in *Figure 4* and described in more detail below, these capacity conditions emphasize the importance of **strategic leadership and collaboration** at all levels and across all organizational boundaries. In the absence of the foundational conditions for the effective development and use of research and data, enrolment planning and goal-setting processes are likely to realize only tactical and short-term benefits[1].

Figure 4: Capacity Conditions for Success



Capacity Condition 1: Collaborative leadership. The importance of collaborative leadership cannot be over-stated. Often in our consulting practice, we encounter situations in which there is little collaboration among data analysts and reporting experts within and across divisions. Roles/responsibilities in providing decision-support information are often blurred, and campus leaders tend to 'shop around' to get their information and reporting needs addressed. This can lead to duplication of effort, less than optimal use of staff resources, individuals working at cross purposes, and 'multiple versions of the a truth' in the information generated—the latter being a **fundamental flaw to the enrolment goal-setting process**.

To illustrate, at one client institution, some fifty departments submitted more than 500 ad hoc requests for information annually that spanned the three aforementioned operational units. There was no governance structure or process for the prioritization of requests, no principles in place for determining who was eligible to make requests, no systematic approach for assessing what types of information were common among the requests received to realize efficiencies, nor where responsibility and accountability for satisfying the requests were best aligned. Following application of a collaborative leadership model and governance structure (refer to Capacity Condition #4), the institution was able to optimize the use of the small cross-divisional talent team it had in order to advance the development of enrolment intelligence and promote a more data-driven approach to enrolment management.

Capacity Condition 2: A skilled enrolment analyst. If you do not have an institutional research (IR) function or a highly skilled enrolment analyst who is **dedicated** to support the enrolment goal-setting and planning processes, as well as the analysis of effectiveness and ROI, this should be your highest priority. You may already have an individual with the requisite skills or staff who can be assigned this role through a recalibration of how human resources are allocated. Within the enrolment goal-setting process, this individual should be charged with responsibility for (a) assessing the 'strategic' and 'actionable' enrolment intelligence needs of campus leaders, (b) developing a strategy for producing the requisite information over time, (c) conducting research and analyses to inform enrolment goal-setting and planning, (d) generating reports appropriate to the needs of campus leaders at all levels within the organization, and (e) assisting in the interpretation of the information generated. Examples of the type of research and analyses that may be conducted include:

- **Environmental scanning** to monitor changes in external conditions and the competitive marketplace, such as demographic shifts, emergence of new competitors, economic trends, changes in government regulations and accountability requirements, to name a few;

- **Enrolment trends analyses** associated with the student lifecycle from initial point of contact with the institution through to graduation and beyond;
- **Strategic research and analyses** in relation to admission/enrolment yields, financial aid leveraging, student flow, attrition/causation, and return on investment (ROI) on enrolment strategies implemented associated with marketing, recruitment, retention, customer service and the like; and
- **Market research** such as applicant studies, admit/declined studies, market opportunities surveys.

Clearly, these examples suggest a breadth of responsibilities and associated skills that go beyond the capacity of a single analyst. Often the enrolment analyst function is anchored within an IR unit and/or embedded within the enrolment management division. The level and nature of staffing as well as organizational alignment of IR and related operations are a function of an institution's size, as well as specific needs for external accountability reporting and internal planning and assessment. According to a 2008 study on the organization and structures of IR and related operations in universities and colleges within the U.S., smaller institutions (<5,000 students) most commonly had one to three persons in an IR operation who functioned as generalists to support these areas of responsibility; whereas larger institutions, typically research-intensive universities, had more mature operations of between four and ten persons (or more) with a breadth of specialized skills[12]. If you are unsure about how to build this capacity within your institution, you may benefit from an independent audit of your enrolment planning function and associated intelligence support systems to identify options and opportunities.

Capacity Condition 3: Support and commitment from operational data stewards. Operational data stewards are the administrative leaders of functional units who are responsible for collecting and recording critical enterprise data, such as the Registrar's Office, Admissions, Financial Aid, Student Success Services, Finance, to name a few. The

support and commitment of administrative leaders of these areas is vital to ensuring data quality, data sharing, and the management and use of data as a strategic asset. These administrative officers know what data are captured, oversee the quality of the data maintained, and understand how the data can be interpreted and used to inform decision-making. The role of data stewards and their staff in developing intelligence information is vital, yet often under-valued. Remember the old adage, 'garbage-in, garbage-out'. If you value data as a basis to focus on the right issues and to make informed strategic and operational decisions, you need to value data as a strategic asset as well as those who manage the integrity of data at its origin.

Capacity Condition 4: Enabling governance structures. To avoid (or address) the aforementioned common pitfalls associated with the foundational capacity conditions for success, you are encouraged to establish enabling structures through which a **talent team of experts** work collaboratively in undertaking a collective and concerted effort in the development of a **unified data management and reporting strategy** that serves as **'one version of the truth'** in enrolment planning. One model that has proven effective at several client institutions is the establishment of a campus-wide Steering Committee to which an Enrolment Intelligence Team (EIT) reports. The Steering Committee, which is often the institution's SEM committee, should have cross-divisional representation of institutional decision leaders at the level of dean/director and higher. This committee serves as the forum for decision-making in creating a vision for the development and use of enrolment intelligence in the SEM planning process, in managing culture to drive performance improvement through the effective use of research and data, and in establishing priorities for the development of intelligence information/reporting systems and the associated allocation of resources. The EIT is a sub-committee of the Steering Committee and is comprised of a talent team that typically consists of the enrolment analyst/IR specialists, data stewards, IT database and reporting experts, as well as faculty and staff 'power users'. This team is empowered to develop and implement an actionable data/research and reporting strategy to

support enrolment planning, performance management, and decision-making. Depending on the size of institution and sophistication of analytic and reporting infrastructures, two additional **enabling sub-teams** may be established to focus on data quality management (e.g., data definitions, data management policies and standards) and reporting (e.g., coordination of ad hoc requests, development of advanced analytics and reporting systems).

Capacity Condition 5: Demonstrated commitment of campus leaders. Generating intelligence information addresses only half of the capacity equation. The other half resides in the appropriate use of the information in decision-making and in the allocation of institutional resources—a responsibility and accountability that must be engrained in organizational performance management systems. This is the responsibility of campus leaders. However, more than passive support is required. Campus leaders at the level of the dean/director and higher must become 'data evangelists' and actively promote the importance of data-driven decision-making. In this regard, campus leaders must provide visible leadership in fostering a 'culture of evidence' by:

- Actively participating in the development of a vision and goals for the use of research and data in enrolment goal-setting, planning, and performance management;
- Communicating the importance of enrolment to the institution's vitality in mission-centric terms;
- Widely sharing information;
- Being transparent in decision-making;
- Supporting investments in the development of priority enrolment intelligence systems;
- Ensuring structures are in place to enable collaborative and integrative decision-making; and
- Defining clear roles, responsibilities, and accountabilities for those charged with the generation and use of intelligence information.

II. DEFINING ENROLMENT GOALS

Now that the groundwork has been set for understanding the importance of intelligence systems to the enrolment goal-setting process as well as the foundational capacity conditions for advancing data-driven decision-making, the remainder of this paper focuses on how enrolment intelligence can be applied in defining enrolment goals linked to performance improvement.

Higher education institutions exist within an increasingly global and competitive environment. The rapidity and complexity of change resulting from demographic shifts, rising costs and declining funding, technology advances, to name a few market forces, has created a context in recent decades in which colleges and universities have been challenged to evolve and adapt to changing environmental conditions. With the adoption of *strategic thinking* into enrolment management practices, this professional field has evolved from a 'nominal' function to being 'strategic' in orientation. Since the early 1970's, enrolment management has evolved in orientation from being an extension of admissions operations, to becoming an embedded philosophy and an integral component of institutional strategic planning and decision-making processes.

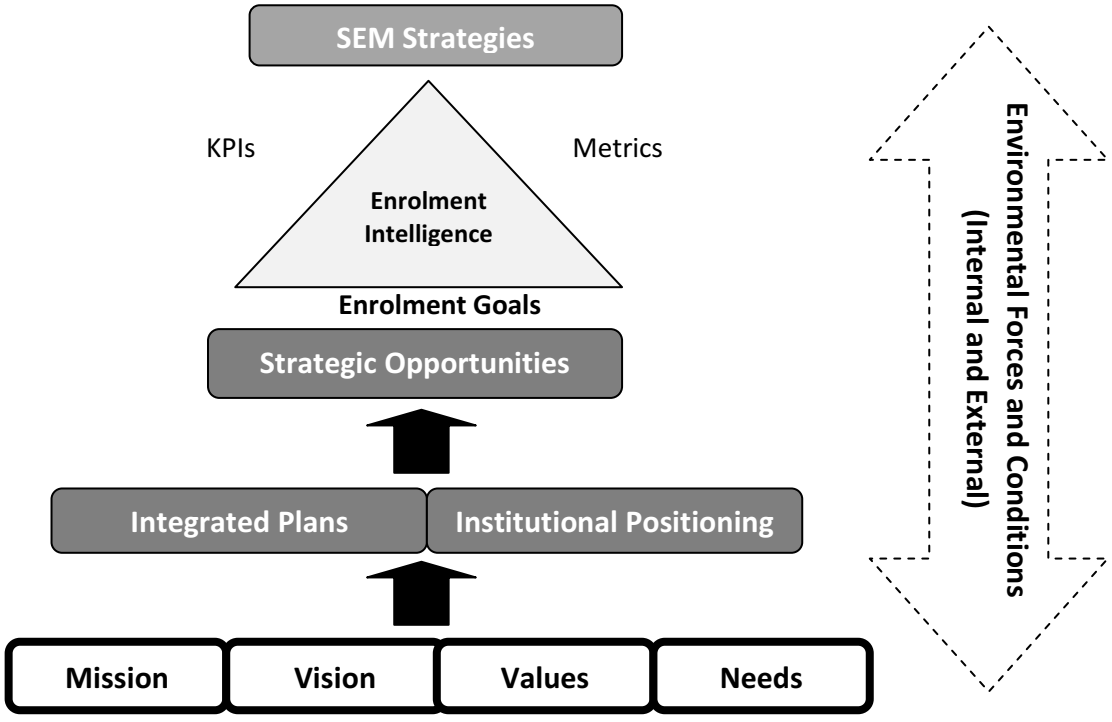
In its most sophisticated form, a SEM plan articulates the means by which the academic program plan is operationalized. As shown in *Figure 5*, enrolment goals are core to the development of a SEM plan. Well-defined enrolment goals give direction to the collective effort in developing enrolment strategies and tactics, allocating institutional resources, as well as in assessing goal achievement. It stands to reason, therefore, that the enrolment goal-setting process must be a key component of the institution's integrated planning processes. As such, the formulation of enrolment goals must be:

- **Strategically aligned** with the institution's mission, vision, values, development directions, and academic priorities;
- The result of **systems thinking** in considering both internal and external environmental factors that are likely to impact enrolment into the future;

- Sufficiently **granular** to inform performance improvement within enrolment-related functions such as institutional marketing, student recruitment, admissions, student success services, and the like;
- **Inclusive** in engaging key institutional constituents/stakeholders at an early stage in the process to foster buy-in to enrolment goals and strategies, and a focus on the associated performance measures that matter most;
- A component of an **integrative planning** process linked to resource management decisions;
- Adopted as a **shared responsibility** and embedded within the institution's performance management and accountability systems.

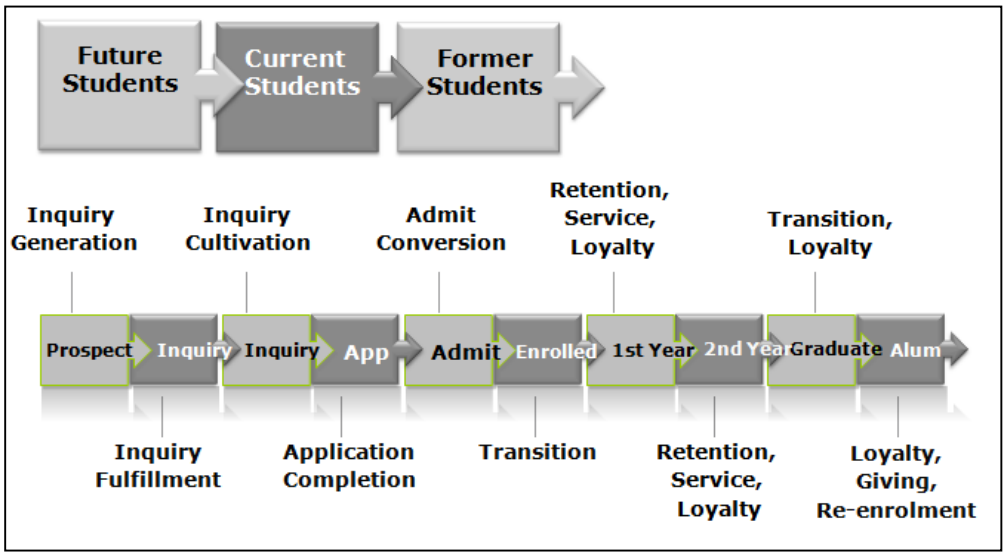
These **six fundamental tenets** underlie the enrolment goal-setting methodology advocated here.

Figure 5: Enrolment Goal-Setting:
A Component of an Integrated SEM Planning Framework



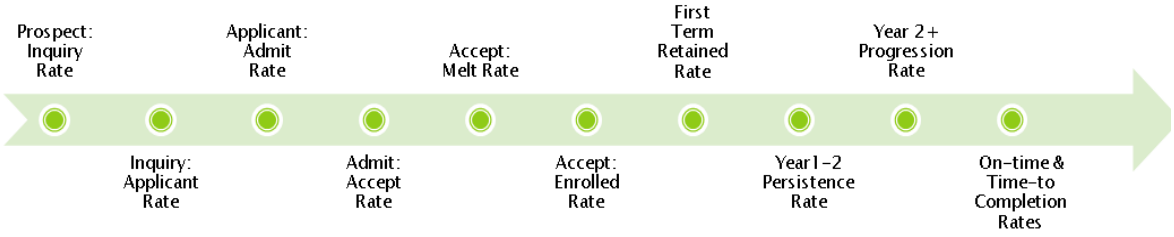
From an operational perspective, SEM is conceived as a "cradle to endowment" set of functions and processes involving a continuum of institutional operations associated with the student experience, from initial point of student contact throughout the educational lifecycle of a student. The *Student Lifecycle Model,* sometimes represented as an enrolment funnel, is depicted in *Figure 6a*. The functions typically associated with the operational aspects of SEM include: (a) marketing, (b) student recruitment, (c) student communications, (d) admissions, (e) financial aid, (f) programs and services, (g) student retention, and (h) alumni relations/advancement. High performing enrolment organizations continuously evaluate the frequency and nature of touch points at each stage of the lifecycle to determine the adequacy of each related to a goal of maximizing enrolment yield and retention.

Figure 6a: SEM as a Performance-based Management Process



Enrolment management becomes a **performance-based management process** when enrolment strategies are linked to measureable goals, called **Key Performance Indicators** (KPIs), and associated **performance metrics** that are benchmarked against internal and/or external standards. Within a SEM planning context, KPIs are often established at both the strategic level, as well as at the more granular tactical levels. Strategic KPIs reflect institutional goals, such as for the 'optimum' enrolment level relative to net revenues and institutional capacity conditions, the desired student profile (quality, diversity, retention, academic performance, graduation), as well as the desired academic profile (admissions selectivity, discipline/credential mix, instructional delivery modes). At the tactical level, KPIs may be established in relation to strategies for marketing, recruitment, admissions, retention, and graduation that are intended to advance the realization of the broader institutional KPIs. Performance metrics are measurements used at the tactical or operational level to track incremental movement toward the achievement of larger performance-based KPIs. For example, enrolment 'yield rates' reflect the percentage of prospective students who decide in favor of enrolling at an institution and are a commonly used KPI for measuring the outcome of admissions-related strategies, in projecting a given term's future enrolment performance, associated net revenues, and 'return on investment'. Admission 'conversion rates' are commonly used performance metrics to monitor the impact of admissions strategies in moving a prospective student along the continuum at each stage of the admission decision process through to enrolment. In this regard, conversion rates are commonly monitored in relation to: inquiry-to-applicant, applicant-to-admit, admit-to-deposit, and deposit-to-enrolled status. Throughout the educational lifecycle, the persistence, academic progression, and learning outcomes of students are tracked and monitored to determine the effectiveness of student retention and success initiatives. Indeed, KPIs and associated metrics are core to effectively managing the student lifecycle as shown in *Figure 6b*.

Figure 6b: Fundamental Student Lifecycle Performance Metrics



The **process of enrolment goal-setting** can be a powerful tool by which campus constituents at all levels are **engaged** in defining what enrolment success will look like in terms that are meaningful to them; in **fostering understanding** of the importance of enrolment to the academic and financial vitality of the institution; and in **building commitment** and **shared responsibility** for goal attainment. When linked to resource allocation decisions and performance accountability, the goal-setting process leads to everyone pulling in the same direction to realize performance improvement.

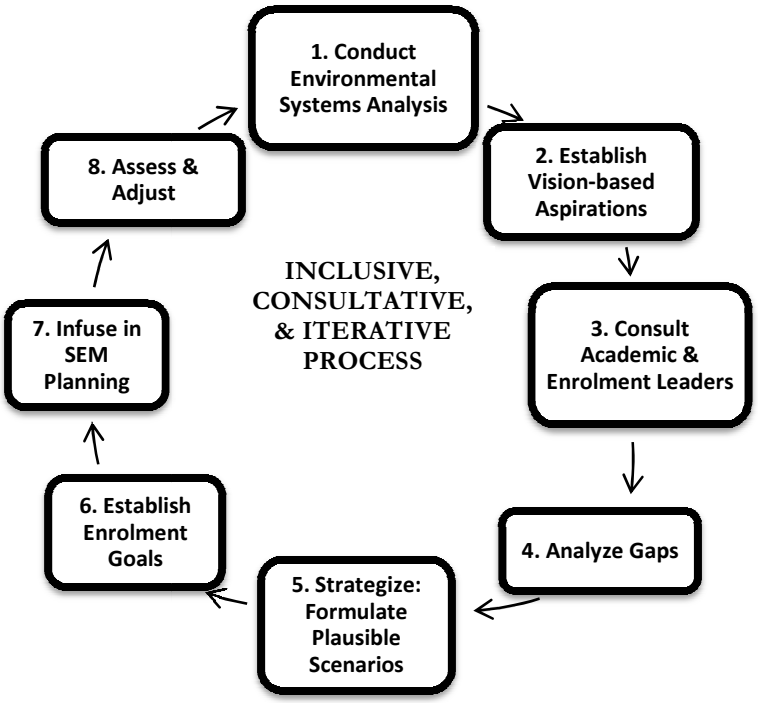
Well-defined enrolment goals should pass the **SMART test** (a term popularized by American sales guru and author Zig Ziglar): **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-based. However, in our consulting experience, all too often enrolment goals are overly focused on institutional aspirations, lack grounding in data, as well as in the realities of institutional capacity conditions to effectively influence enrolment strategies that guide the work of operational units (e.g., institutional marketing, student recruitment, admissions offices, student success service units, and the like) in realizing the enrolment goals and priorities of academic divisions.

The enrolment goal-setting methodology posited here and depicted in *Figure 7* is designed to bring into alignment the institution's vision-based aspirational enrolment goals with the academic priorities, capacity conditions, and capabilities of academic divisions and service units through a consultative process that engages campus constituents in a **critical analysis of available enrolment intelligence**. The methodology draws upon information from

multiple sources (i.e., perspectives of campus leaders, business intelligence analytic and reporting systems, primary research and analyses, secondary information resources) to inform a critical analysis of the **plausible scenarios** for realizing the institution's enrolment aspirations leading to the development of well-defined SMART enrolment goals.

As can be observed in *Figure 7,* the actual process of enrolment goal-setting involves a **six-step process**. However, the formulation of enrolment goals must be aligned with strategies, integrated with SEM planning and resource allocation decisions, and tied to assessment and accountability for performance improvement. These essential steps have been encompassed in the enrolment goal-setting methodology associated with **steps seven and eight** to avoid a common planning pitfall — the development of strategy for strategy's sake.

Figure 7: Enrolment Goal-Setting Methodology



AN INCLUSIVE PROCESS THAT FOSTERS BUY-IN

Typically, institutional enrolment goals are established as part of a campus-wide strategic planning process and approved by the president and/or board of trustees. Often the formulation of these goals derives from a compilation of disparate sub-plans emanating from the work of institutional task forces and/or divisional planning activities. In these situations, the articulated goals, while directional and contextual in nature, may suffer from one or more of the following shortcomings:

- Goals may reflect institutional aspirations more than the realities derived from a data-driven process;
- Data used to establish goals may derive from sources not consistently used for institutional planning purposes resulting in 'multiple versions of the truth'; and/or
- Data definitions applied may not be commonly agreed upon or appropriate for the purposes of benchmarking with peer institutions.

As a consequence, campus constituents may view the goals as 'lofty dreams' or 'lacking integrity'. Time and energy may be expended arguing more about the data than on the strategic issues that matter most; and/or on the wrong issues, which could lead to costly and even devastating consequences. Therefore, as previously stated, the articulation of enrolment goals must be grounded in 'one version of the truth'. That is, a consistent base of systematically generated information that is grounded in definitions agreed upon among campus leaders for internal planning and decision-making.

To avoid the aforementioned shortcomings and potential consequences, the enrolment goal-setting process should be **jointly sponsored** by the executive leaders of the academic, student services and administrative divisions, and **involve key decision leaders** from across divisions at the level of the dean/director and higher in determining what information is required. The type of information to be systematically collected may change over time as the institution's situational context changes. Therefore, what is collected, how it is defined, the

frequency of reporting, and in what form should be reviewed on a periodic basis in consideration of the planning information needs of key decision leaders at all levels of operation. Of particular importance is that decision leaders not only **agree to what is collected and reported**, but also **commit to its use** as the primary basis for decision-making.

In order to address the gaps between 'aspiration' and 'reality' in enrolment goal-setting, an **inclusive and iterative, top-down and bottom-up consultative process** is advocated that is anchored within the institution's academic and financial contexts. Four strategic research questions that are aligned with the *Enrolment Goals Model* depicted in *Figure 2* can be used to frame the consultative process and include:

1. What **enrolment imperatives** are of highest priority over the next 3-5 years (e.g., quantity, quality, student diversity, program/credential mix, student retention, net revenues)?
2. What **environmental factors** present the greatest opportunities and threats?
3. What are the **competitive market** advantages and disadvantages?
4. What **institutional capacity** (academic divisions and student support services) is available or potentially can be expanded to realize the desired enrolment profile?

Each of these questions can be further defined in relation to the enrolment goal-setting variables of importance to the institution, as discussed earlier in this paper. Collectively, the four questions and associated enrolment planning variables constitute the '**enrolment insights**' required to support the enrolment goal-setting process, and serve as a construct for developing enrolment intelligence information and reporting systems. Following from a critical analysis of these enrolment insights, plausible enrolment scenarios (conservative, moderately aggressive, stretch) can then be formulated for realizing the institution's enrolment goals.

Effectively implemented, an inclusive and iterative approach to enrolment goal-setting fosters data-driven decisions at all levels of the organization, builds capacity in the effective use of research and data, fosters understanding and buy-in to decisions made, and promotes accountability among those responsible for implementing approved strategies.

The iterative process presented in *Figure 7* and described in more detail below, is not atypical of the key elements associated with strategic planning, which include: 1. research, 2. vision, 3. plan, 4. analyze, 5. strategize, 6. develop, 7. implement, and 8. assess and adjust. Experience suggests that with strong executive commitment to the process and when expertly facilitated, the goal-setting process from initiation through to approval of a preferred scenario and associated enrolment goals can span a period of **three-to-five months**. Therefore, the identification of the right individual to lead this process is critical to its success.

Research and experience suggest that the **key attributes of the designated enrolment leader** include (a) credibility with the academic community, (b) an understanding of SEM planning concepts and functions, (c) highly analytical and data literate, (d) politically savvy, (e) a systems thinker, (f) an effective communicator, and (g) problem-solver. Often institutions benefit from a skilled and experienced **third party facilitator** who can bring a strategic focus to the enrolment goal-setting process, provide an impartial perspective on strategic opportunities, and assist in maintaining momentum to the process. A detailed description of each step of the enrolment goal-setting process follows and includes examples that may prove useful in the practical application of the methodology.

Step 1- RESEARCH- Conduct an Environmental Systems Analysis.

The process begins with an environmental systems analysis to examine factors both internal and external to the institution that may impact enrolment. A common framework for conducting an environmental systems analysis is Michael Porter's Five Forces Model[13]. However, there are many variants on this construct that may prove to be useful for

application at your institution. Typically, an environmental analysis considers **external forces** within the local, provincial, national and international contexts (e.g., population demographics, social/lifestyle values, political context, workforce and occupational context, educational competitors, technology), as well as **internal organizational capacity conditions** (e.g., people, policy, structures, systems, practices).

The scope and requirements for an environmental systems analysis should be defined by your institution's SEM Committee or senior leadership team and conducted with the support of the IR office and/or designated enrolment analyst. Alternatively, an environmental systems analysis to inform enrolment goal-setting can be conducted as a component of a **third-party best practices audit** of the enrolment function. An environmental systems analysis draws upon a plethora of information resources, such as internal institutional research and analyses, market research, literature reviews, web-based database searches, constituent interviews, among others. Therefore, it is important that this process be undertaken by a skilled researcher who has an understanding of the higher education system context, the institution's vision and strategic development directions, and the ability to compile and synthesize large volumes of information for the purposes at hand.

A synopsis of the information gleaned from this process should be reported in a **user-friendly format** and **shared broadly** with academic and service leaders for review and discussion. Examples of reporting frameworks are presented in *Figures 8a and 8b*. The templates are illustrative only and not intended to be comprehensive, nor prescriptive in nature. You will observe in *Figure 8b* the reference to 'capability indicators' of service units. These refer to the scalability of a service unit, reflecting the threshold at which additional resources may be required. The threshold indicators may be internally derived based upon historical evidence of operational performance or based upon quality-based standards of professional practice (e.g., advisor to advisee caseloads).

Figure 8a: Template for Assessing 'External Forces' Likely to Impact Enrolment

EXTERNAL FORCES ANALYSIS		
STUDENT DEMAND	**STAKEHOLDER NEEDS**	**COMPETITIVE OPPORTUNITY**
• 3-year Trends in Application Activity, Transfer Rates, etc.	• Business & Industry Trends and Outlook (local, provincial, national, international)	• Market Share
• Population Trends (local, provincial, national, international)	• Labor and Economic Trends & Outlook (local, provincial, national, international)	• Reputational Image
• Postsecondary Participation Rates by Population Segment	• Government Policy Context	• Competitor Comparisons (e.g., pricing, marketing/ recruitment effectiveness)
• Shifts in Expectations of Educational Consumers (e.g., use of technology, flexible delivery)	• Partnership Potential	• New/Emerging Competitors
ENROLMENT INSIGHTS AND IMPLICATIONS		

Figure 8b: Template for Assessing 'Internal Capacity Conditions' Likely to Impact Enrolment

ACADEMIC DIVISION CAPACITY ANALYSIS	INSTITUTIONAL CAPABILITY
INSTRUCTIONAL LOAD • Unused teaching capacity	**MARKETING & RECRUITMENT SCALABILITY** • Student inquiry and admission yield rates
SPACE AND CLASS/LAB SEAT UTILIZATION • Unused space capacity by type, size, time of day, day of week	**ENROLMENT SERVICES SCALABILITY** • Turnaround processing times
COURSE CAPACITY • Unused course seat capacity by discipline • Lost revenue from an unused seat	**STUDENT LEARNING & DEVELOPMENT SERVICES SCALABILITY** • Advisor/advisee loads, service wait times
INSTRUCTIONAL DELIVERY METHODS • % program enrolment delivered fully online • % of course sections by method of delivery	**INSTRUCTIONAL DEVELOPMENT SUPPORT SERVICES SCALABILITY (e.g., curriculum development)** • Service backlog
SERVICE COURSE DEPENDENCY • % course seats consumed by students from other divisions • % course seats consumed in other divisions	**LIBRARY RESOURCES SCALABILITY** • Discipline-based library resources
SCALABILITY POTENTIAL • Programs/disciplines of 'highest cost' versus 'cash cows' and % enrolment	
PROGRAM INNOVATION • Programs of highest/lowest demand and % enrolment	
ENROLMENT INSIGHTS AND IMPLICATIONS	

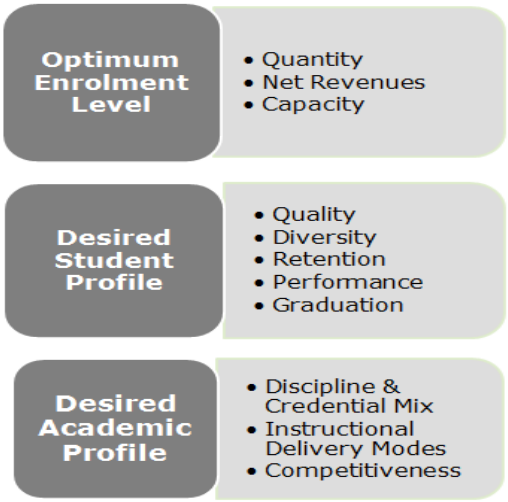
Step 2- VISION- Establish Vision-based 'Aspirational' Enrolment Goals.

The articulation of the 'desired' or 'ideal' institutional enrolment profile is an important step in establishing plausible scenarios relative to the institution's long-term vision. In effect, the vision-based goals represent enrolment goal-setting 'parameters', as they are more

'aspirational' than data-driven at this stage. The formulation of vision-based enrolment goals should be articulated by the institution's executive leaders and provide directionality for performance improvement and the assessment of goal attainment over the plan period (typically three years). Hence, the goal statements should be framed in relation to two conditions: the 'current' state versus the 'desired' future state.

The number of enrolment goals should be few in number but broad in dimension. In this regard, *Figure 9* presents a practical framework for the development of vision-based aspirational enrolment goals (or goal-setting parameters). The framework reflects the aforementioned three enrolment planning parameters (i.e., optimum enrolment level, desired student profile, and desired academic profile) and associated goal-setting dimensions. The deliverable from this process should be the articulation of the 'current' versus 'desired' future enrolment state in measurable terms that will serve as goal-setting parameters for the constituent consultative process (Steps 3 through 6).

Figure 9: Framework for Articulating Enrolment Planning Parameters



In order to inform the articulation of aspirational goals for the 'desired' enrolment profile, **baseline data** are required that profiles the current state in relation to admissions and

enrolment activity, student profile (new and continuing), as well as organizational capacity conditions. Ideally, three years of data should be used in developing the profiles in order to determine whether there is stability or change occurring. However, experience suggests that for many institutions this may prove to be a challenge. If this is the case at your institution, start with the most recent full year of data you have. To be meaningful, the generation of the various enrolment profiles must be based upon a consistent database and methodology.

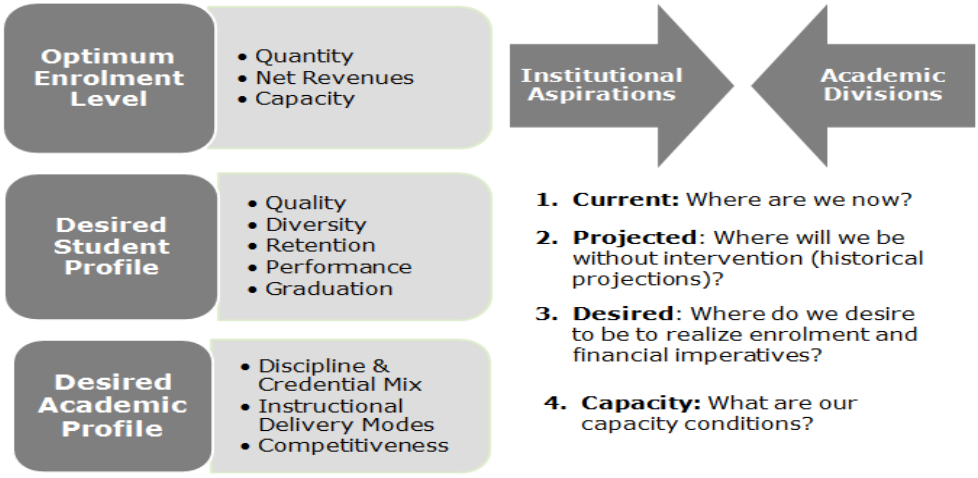
In determining the desired future state, there may be value in **benchmarking** your institution's performance against peer, aspirant, and/or competitor institutions. Data on comparator institutions may be readily available from government data repositories associated with accountability reporting requirements (e.g., IPEDS), accrediting agencies, consortium-based research initiatives, and the like. To illustrate the value of institutional benchmarking, one client institution identified an aspirational goal to increase graduate enrolment. In comparing the percentage of existing enrolment at the graduate level relative to that of peer institutions, it was determined that graduate enrolment at most peer institutions constituted at least 18% of total enrolment, as compared to the client institution's level of 9%. Therefore, a target of 18% was set as the 'aspirational' target to be achieved over a period of five years. While this was a valuable starting point, 'planned' enrolment growth targets submitted by the academic divisions in the multi-year budgeting process indicated that only marginal growth was planned at the graduate level, reflecting a serious disconnect between the institution's aspirations and academic development plans and priorities. Through the enrolment goal-setting process (detailed in Steps 3 through 6), it became apparent that in order to realize the institution's aspirational goal within the defined timeframe, strategies were needed to incentivize graduate enrolment growth, address capacity constraints, and to create the conditions for program innovation and development. Alternatively, the institutional aspirational goal needed to be adjusted.

Step 3- PLAN- Consult Academic and Enrolment Leaders.

Determining the realities of the academic program context and organizational capacity conditions of service units goes beyond quantitative analyses alone. Other factors that must be considered include the academic priorities of each division; discipline-specific external pressures; potential to optimize existing program/curricular structures (e.g., combining course sections, adjusting delivery methods, modifying curriculum structures); potential to invest in program development based upon faculty/staff availability and expertise; potential to optimize the use of technology; impediments created by outdated policies and structures; organizational culture and sub-cultures; among other factors. This type of information can best be ascertained through **facilitated discussions** with the leaders of each academic and service division and used to supplement and qualify the information associated with *Figures 8a and 8b* in Step 1. In this way, the enrolment goal-setting process involves a **triangulation** of information sources that lends **credibility** to the process.

The deliverable from this step of the enrolment goal-setting process is a clear indication of the enrolment goals and priorities of each academic division relative to the institution's aspirations as shown in *Figure 10*.

Figure 10: Aligning Institutional Aspirations with Organizational Capacity Conditions



Step 4- GAP ANALYSIS- Analyze Gaps.

This step of the enrolment goal-setting process involves an analysis of the gaps between the 'current', 'desired', and 'projected' enrolment profiles (if the capacity exists to generate enrolment projections). More specifically, the current enrolment profile at the academic division level (i.e., College, School, Faculty) is compared to the 'desired' enrolment profile, as well as to the 'projected' enrolment profile of what would happen 'without intervention' based upon historical trends. In relation to the latter, projected enrolment would be based upon historical trends in applications, admission/enrolment yields, year-to-year retention and completion rates. From this data, a gap analysis can be undertaken to determine the disparities that may exist as shown in *Figure 11*.

Figure 11: Gap Analysis

GOAL AREA	INSTITUTIONAL KPIS/METRICS	ACADEMIC DIVISION A, B, C....			
		'CURRENT' STATE	'PROJECTED' STATE	'DESIRED' STATE	GAPS/ OPPORTUNITIES
OPTIMUM ENROLMENT					
DESIRED STUDENT PROFILE					
DESIRED ACADEMIC PROFILE					

In order to foster understanding and awareness of the underlying analytics, the gap analysis should be undertaken as a collaborative effort between the data analysts/experts responsible for producing the enrolment profiles and the academic divisions. In this way, adjustments to the methodology and data definitions can be made (as appropriate), and the gap analysis can take into consideration multiple perspectives.

Step 5- STRATEGIZE- Formulate Plausible Enrolment Goal Scenarios.

Following from the gap analysis, a **critical assessment** of all available enrolment intelligence can be undertaken with a view to formulating the most plausible enrolment goal scenarios over the plan period (typically three years). The number of plausible enrolment scenarios should be kept to a manageable few—such as a worst case, conservative case, and best case scenario; or a conservative, moderately aggressive, and stretch scenario as shown in *Figure 12*. Specific assumptions, required capacity conditions, and the positive and negative implications associated with each scenario should be articulated.

Figure 12: Critical Assessment of Plausible Enrolment Scenarios

Goal Area	KPI's/ Metrics	'CURRENT' STATE	'PROJECTED' STATE	'DESIRED' STATE	Plausible Enrolment Goal Scenarios		
					Scenario A	Scenario B	Scenario C
Optimum Enrolment							
Desired Student Profile							
Desired Academic Profile							

Step 6- DEVELOP- Establish Enrolment Goals.

At this juncture, a consultative process involving senior academic and administrative leaders is facilitated in order determine the single 'best-fit' scenario to guide enrolment planning. Following review and approval by the appropriate governance bodies, the resultant enrolment goals must be **communicated broadly and infused within the SEM planning process** leading to the development of integrated and actionable strategies, and subsequently aligned with resource allocation decisions tied to accountability. Using the previous example from a client institution, *Figure 13* presents a template that illustrates how the resultant

enrolment goals provide directional focus to the strategy development and resource allocation decision processes.

Figure 13: Aligning Enrolment Goals and Strategies

EXAMPLE ENROLMENT GOAL: INCREASE GRADUATE STUDENT ENROLMENT FROM 9% TO 18% OF TOTAL INSTITUTIONAL HEADCOUNT ENROLMENT BETWEEN 2013 AND 2017.	
TARGET STUDENT SEGMENT(S)	• Internal undergraduate graduating students • Others
TARGET PROGRAM(S) OF OPPORTUNITY	• Masters level (list of program areas) • Doctoral level (list of program areas)
METRICS	Measure(s) of goal attainment: • Graduate enrolment as a % of total headcount enrolment • Internal undergraduate completers as a % of total 'New' graduate students • Term-to-term active student status
STRATEGIES	Potential strategy areas to realize enrolment goal: • Marketing, Recruitment & Communications Strategies • Service Delivery Strategies • Scholarship Leveraging Strategies • Retention & Student Success Strategies • Program Innovation & Development Strategies
TIMELINE	Short-term and long-term
EFFECTIVENESS/ROI MEASURES	Indicators of impact of strategies adopted
STRATEGY OWNER/ ACCOUNTABILITY	Individual(s) responsible and accountable for strategy execution
SUPPORT UNITS	Units enabling strategy implementation
ANTECEDENTS FOR SUCCESS	Organizational capacity conditions for successful implementation
RESOURCE IMPLICATIONS	People, financial, technology, research/information, facilities, etc.

Steps 7 and 8- IMPLEMENT, ASSESS AND ADJUST-Infuse Enrolment Goals in SEM Planning, Monitor Performance and Adjust

Modeling **commitment to change** is not only demonstrated by engaging campus constituents in the enrolment goal-setting process but also by creating the workplace conditions for success in the attainment of enrolment goals. This is achieved by effectively linking enrolment goals to strategies for performance improvement, by integrating priority

strategies with resource allocation decisions, by removing barriers that impede the successful execution of approved strategies, by utilizing incentives and reward systems in-keeping with faculty and staff values, and by holding individuals accountable for results with tangible consequences (both positive and negative).

FINAL THOUGHTS

To thrive into the future, campus leaders must have the strategic and actionable intelligence to focus on the 'right' strategic issues, and to strategically deploy resources where the highest potential return on investment exists. Articulating data-driven enrolment goals in terms that are specific, measurable, attainable, reasonable, and time-based give clear direction to the collective effort in advancing an institution's vision for enrolment success. The process of enrolment goal-setting can be a powerful tool in influencing positive change. Within the context of SEM planning, enrolment goal-setting can give focus to the SEM planning effort, foster commitment to and shared responsibility for enrolment outcomes, and establish the basis upon which success is defined and measured in meaningful terms. When linked to resource allocation decisions and accountability, the goal-setting process helps to effectively align the allocation of institutional resources to ensure the conditions are in place for successful goal attainment.

The six-step data-driven process for establishing enrolment goals described in this paper brings into alignment the institution's vision-based enrolment 'aspirations' with the 'realities' of the capacity conditions and capabilities of academic and service divisions through a consultative process that engages campus constituents in a critical analysis of available enrolment intelligence. Indeed, it has been the experience of this author in applying this model at numerous institutions that institutional aspirational enrolment goals are typically *at*

variance from the enrolment priorities and/or capacity conditions of the academic divisions. Through the application of this six-step process, more realistic and plausibly-attainable enrolment goals may be established to guide the development of targeted strategies and capacity conditions for improved performance and sustainable success.

Taken collectively, the templates presented throughout this paper provide a framework for the systematic collection, analysis, and reporting of 'enrolment insights' that can be used to foster campus-wide engagement in strategic thinking and data-driven decisions. The effective application of the methodology requires a commitment of campus leaders at all levels to shared responsibility for enrolment outcomes.

If you have determined in reading this paper that you are data rich but information poor, you may be an institution at risk. Developing the requisite enrolment intelligence is a journey, not a quick fix. To begin the journey, you need to ensure that the fundamental organizational capacity conditions are in place: collaborative leadership, a skilled enrolment analyst, support and commitment from operational data stewards, enabling governance structures, and demonstrated commitment from campus leaders. However, simply generating enrolment intelligence is insufficient to affect change. Fostering a culture of evidence requires campus leaders to become 'data evangelists' in promoting the value of data as an institutional resource, the importance of the routine collection and dissemination of relevant information at all levels within the organization, and the systematic application of relevant information in decision-making processes at both the tactical and strategic levels.

There is no guarantee that by setting data-driven enrolment goals you will realize organizational success. However, within the reality of today's complex and volatile higher education environment, without clearly articulated and measurable goals by which to organize the collective institutional effort, there is little doubt that you are more than likely to fail.

ABOUT THE AUTHOR

Dr. Lynda Wallace-Hulecki is the vice president for strategy and senior consultant at SEM Works. Her higher education career spans more than thirty-five years within both the university and two-year college sectors in Canada. She has extensive leadership experience and an impressive record of accomplishments in bringing about campus-wide strategic enrolment success, an integrated approach to academic and enrolment planning, and transformative change in policies, systems and practices. For twenty-three years of her career, Wallace-Hulecki directed an institutional analysis and planning office—a position for which she was awarded a distinguished administrator award.

Dr. Wallace-Hulecki has served on both federal and provincial committees related to inter-provincial student mobility and higher education accountability in Canada. Wallace-Hulecki has been an active member of numerous professional organizations (e.g., AACRAO, ARUCC, NASPA, AIR, SCUP, EDUCAUSE) as a presenter and a presentation reviewer. She has written numerous white papers on the application of SEM theory in practice, and recently authored two chapters in *Strategic Enrolment Intelligence,* Canada's first book on enrolment management.

Lynda earned a B.Sc. in the mathematical sciences from the University of Manitoba, as well as a M.Ed. in higher education administration—student affairs, and an Ed.D. in leadership and higher education from the University of Nebraska-Lincoln. She has participated in Harvard's Institute for Management and Leadership in Education (MLE), as well as in the world-class Chair Academy for college and university leaders. In 2011, Lynda was appointed to the International Practitioner's Advisory Board for the Leadership Academy. Lynda's graduate research focused on the evolving field of strategic enrolment management, and on the application of learned concepts in leading change, in building organizational capacity for enrolment performance measurement, and in building shared responsibility for enrolment outcomes with the campus community through an integrated approach to academic and enrolment planning.

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