UNIVERSITY
OF WYOMING

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ISSUES AND POLICIES IN ENROLLMENT CONTROL

1. Introduction and Summary

Virtually every academic unit at UW asserts that its teaching staff is too small. Workforce analyses conducted over the past two years lend credence to at least some of these assertions. In some cases the perceived shortfall reflects a discrepancy between typical or realistic staffing levels and a faculty size that even the wealthiest of institutions would struggle to achieve. At the same time, there are departments in which, by any reasonable measure, stresses attributable to student demand border on the unmanageable. At issue are whether and how to manage the most difficult cases by controlling student enrollments.

Our inability to solve all enrollment pressures, university-wide, by expanding the instructional workforce is not due to resource constraints alone, although these are always important. As explained below, there are other factors that make it unwise to relieve all enrollment pressures by hiring. It may be more appropriate, in some programs and circumstances, to implement controls on student enrollments. In those cases, the question then becomes what types of control mechanisms are available and under what conditions might each mechanism be appropriate.

There are two main types of enrollment control mechanisms: (1) numerical enrollment caps, imposed either by a first-come-first-served system or by competitive screening, and (2) competency-based screening. As discussed below, each of these mechanisms is appropriate in different circumstances.

Enrollment control involves many complexities. The following is a summary of points discussed in more detail below.

- **The spectrum of enrollment demand.** High student demand has a complex spectrum of causes, ranging from requirements imposed by the institution to students' choices of specific courses and professors. When we require students to take a course, it is better to try to staff it adequately. To the extent that the demand reflects unfettered student choices, however, the need to solve the problem by adding permanent teaching staff may be less compelling. Moreover, in these cases the appropriateness of enrollment controls may hinge on a variety of factors. Numerical limits represent just one of several possible tools. The discussion below lists some approaches, along with some guidelines for choosing among them.

- **Perennial versus transitory demand.** The persistence of high demand varies among programs. In programs where student demand fluctuates over time, there are strong arguments *against* responding to enrollment changes with proportional allocations of faculty positions. In these cases it is arguably just as inappropriate to modulate fluctuating student demand using competency-based screening mechanisms. Screening criteria resting on pedagogically sound standards are unlikely to vary in precisely the fashion needed to maintain steady enrollments in the face of fluctuating student interest.

- **The range of factors in resource allocation.** In programs where student demand is perennially high, it is appropriate to take enrollment pressures into account when allocating resources. However, direct proportionality is rarely appropriate. Other factors — such as the need to support institutional areas of distinction in scholarship; responsiveness to statewide and regional research and outreach needs; the care with which the department tailors and delivers its curriculum and

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manages its own instructional resources, confidence that the high demand is not attributable to lax pedagogical standards, and the likelihood of hiring high-caliber faculty — also carry significant weight in resource allocation decisions.

- **Reasons and mechanisms for controlling enrollments.** While there are circumstances in which enrollment controls are appropriate, any effective mechanism for controlling enrollments in a particular program has pedagogic and management implications that extend beyond the department level. For example, restrictions that limit access to high-demand programs effectively shunt some of the demand to others. This effect may have some benefits, but it can be problematic, when the demand shifts to programs that struggle with enrollment pressures of their own. Choosing among possible mechanisms requires careful thinking about the rationale for controlling enrollments as well as these other implications.

This memo briefly examines these complexities. It reviews the spectrum of reasons that students enroll in courses, considerations associated with the persistence (or lack of it) of student demand, the other factors that affect instructional resource allocation, and reasons and mechanisms for controlling enrollments. The memo concludes with a set of proposed policies to help guide decisions about enrollment controls.

2. The Spectrum of Enrollment Demand

It is important to distinguish among the different reasons students enroll in courses. Reasons that are pertinent to this discussion include:

- Satisfying a university-level requirement to take a specific course;

- Satisfying a university-level requirement to take a course from a specified category of courses;

- Satisfying a college-level requirement to take a course;

- Taking a course required to complete a particular major;

- Taking a course out of interest in the topic or professor.

This spectrum of reasons has significant bearing on the appropriateness of measures used to limit or filter enrollments. In some cases it may be more appropriate to reallocate instructional resources than to limit enrollments. In some other cases, attempts to match instructional resources to demand may have undesirable effects. Before examining specific enrollment control mechanisms it is useful to establish when, along this spectrum, the argument for reallocation or addition of instructional resources might be most compelling.

Required courses. At one end of the spectrum — university-level requirements — students have little choice. An example is the requirement to complete English composition. When a course is required, the university has an implicit responsibility to try to match instructional resources with student demand, recognizing that unpredictable enrollment fluctuations can make it difficult to meet the demand precisely every semester. Nearly as compelling are cases where students have a choice among a small number of different courses in meeting a specific general education requirement. It may be reasonable to staff some of the choices better than others, based on factors related to other institutional priorities. But by requiring the courses the university owes its students a good-faith effort to provide appropriate staffing.

It would be naïve not to acknowledge the hidden effect that this logic has on the curriculum. Some faculty members vie to have their departments' courses included in the required core, not only because of academics' natural tendency to regard our own disciplines as absolutely central to human intellectual endeavor but also, to be honest, in hopes that requirement-driven enrollments will justify favorable resource allocations. A realistic appraisal of UW's *actual* resource allocations explodes this myth. UW's core curriculum has had at least three distinct structures in the past two decades. In none of them has it managed to match its course requirements with adequate teaching resources. There are two practical lessons here: (1) a mandate to deliver required courses can be more a curse than a blessing from the standpoint of department staffing, and (2) unless the faculty elect to shrink the core curriculum significantly, university-wide requirements are likely to be a dominant factor in any administrative decisions about where to allocate new teaching resources.

Courses required for majors. Somewhere in the middle of the spectrum is the demand driven by students' own choices of majors. This category includes courses specifically required to complete the student's major as well as course requirements imposed by the college in which the major resides. Here the university's responsibility is arguably less compelling than in cases where institutional requirements drive the demand. And the degree to which high demand is likely to persist may have some bearing on the best approaches to managing it, as discussed below.

Elective courses. At the far end of the spectrum, student interest in a particularly popular course or highly regarded professor may also drive enrollment pressure. In cases involving isolated *elective* courses or particular faculty members, simple caps on course enrollments can be an effective and justifiable control mechanism. Capping enrollments in elective courses is not nearly as problematic as capping enrollments in courses required for majors, and it is far less problematic than capping courses needed to satisfy university-wide graduation requirements.

3. Perennial versus Transitory Demand

The anticipated persistence of high demand is another factor that merits consideration, albeit a more subtle one. In some cases, the popularity of a major persists for decades at a time; in others, the time scale associated with significant fluctuations in demand is much shorter.

Perennially high demand. Some majors are perennially popular, sometimes because students or their parents perceive them to lead to lucrative job prospects, and sometimes because students perceive them to be less challenging pathways to the baccalaureate. Perennially high demand for a major is one but not the only factor in decisions about staffing. For example, the need to staff required courses may constrain or even exhaust the institution's ability to reallocate resources to other high-demand sectors of the curriculum.

Less quantifiable factors may also contribute to staffing decisions, as when the perennially high demand is in areas not closely related to the required core curriculum, in programs poorly aligned with the institution's areas of distinction, or, on the positive side, in disciplines in which the university claims some responsibility to help address state and regional workforce needs[1].

Questions occasionally arise over the degree to which some students gravitate toward programs that have lower academic standards or expectations. While lack of rigor is often an all-too-facile explanation for perennially high student demand, diverting scarce faculty resources to programs that really *are* short on rigor hardly serves UW's commitment to excellence in the long term. In this respect, high-demand departments have a special responsibility to ensure that the demand is attributable to academically legitimate factors, such as excellent career opportunities, a provably superior culture of student learning, and significant involvement in the core curriculum, to mention a few.

Transitory high demand. Additional considerations may affect staffing decisions in majors that historically have experienced large fluctuations in student demand. Driven by national trends, changes in the external job market, or other factors, fluctuations of this type tend to occur on time scales measured in several years. In these cases of transitory high demand, attempts to allocate faculty resources in direct proportion to student demand can have three highly distorting effects:

- First, the time scale of a faculty appointment — three or four decades — is much longer than the time scales over which student demand typically fluctuates. Consequently, the institution's attempts to adjust staffing levels to demand are doomed to be too slow, both during the upswing in demand and during the subsequent fall-off.

- Second, in most cases student demand parallels national trends, and as a result the national competition for high-caliber faculty members in the affected disciplines is often intense. From the perspective of building a strong faculty on a realistic budget, a period of rapidly increasing student demand may be precisely the wrong time to go long in the hiring market.

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[1]As a hypothetical example, if there is a dire shortage of secondary science teachers, restricting enrollments in secondary science education in the face of an unexpected surge in demand by highly qualified students might be less desirable than reallocating faculty positions to the program.

- Third, attempts to respond proportionately to student demand can have catastrophic effects on some programs, especially when demand drops sharply. UW's abandonment of the baccalaureate in petroleum engineering in the late 1990s is arguably a good example. The damage done by overreacting, either through the decimation of valuable programs or through aggressive hiring from a thin, expensive talent pool, can reverberate for many years.

In short, allocating or reallocating instructional resources is one method of aligning student demand with instructional resources; enrollment control is another. The two approaches are not equally appropriate: the first is preferable in cases where the demand is attributable to a requirement, while the second may be more appropriate in cases where the demand is attributable to students' choices. Furthermore, some cases may merit a combination of staffing adjustments and enrollment controls.

Where service courses fit in. The factors considered in this section may have little bearing on departments in which a large fraction of the student demand is in service courses. However, this circumstance merits a cautionary note. Whether these service departments have many majors or few, much of the enrollment pressure they face is the result of (1) university- or college-level requirements, as discussed above, or (2) requirements imposed by other departments' majors. In the latter case, it makes little sense to allocate premium teaching resources to the client departments while neglecting teaching resources in the departments that provide the essential service courses.

4. Reasons and Mechanisms for Controlling Enrollments

When the allocation or reallocation of instructional resources is inappropriate, extraordinarily difficult, or inadequate to fix the problem, it may be necessary to control enrollments. There are at least three circumstances in which enrollment controls may be the most effective option for managing mismatches between staffing and student demand: (1) available resources or priorities may not favor adding staff in the affected area; (2) there may be a mandate to guarantee levels of competency that not all interested students can demonstrate; or (3) there may be good reason to avoid over-responding to fluctuating demand.

Constraints on institutional resources. Even in the best of budgetary milieus, there are constraints on instructional resources. A high-functioning university feels these constraints at any level of funding, because its aspirations always exceed the status quo. Even history is an unreliable gauge: if one identifies the historic maximum faculty size for each UW department and adds the results over all departments, the sum represents a faculty size larger than UW has ever had or is likely to have in the foreseeable future. This "high-water-mark" faculty represents not only a set of snapshots taken at different times in different departments but also, in some disciplines, a set of salaries no longer consistent with what it takes to hire professors of the caliber we seek. And even this faculty would fall short of staffing the university in the manner to which many programs hope to become accustomed. In this respect, adequate staffing, at least to that extent we define it as the aggregated wishes of individual programs, is perpetually out of reach.

Therefore, some programs will inevitably remain staffed at levels that they perceive as inadequate. Constraints on institutional resources typically require deans and central administrators to establish staffing priorities, based on judgments about centrality to the curriculum, potential to contribute to areas of distinction, student demand, the prospects for hiring outstanding faculty members, and other factors.

Mandate for high levels of competency. In a small number of fields, especially in certain professions, UW faces either an implicit or explicit mandate to produce graduates who demonstrate levels of competency that not all aspiring students are likely to exhibit. Nursing is arguably an example. Engineering may be another. In these cases the most appropriate forms of enrollment control are those related to competency: grades in particular prerequisite courses, overall grade-point average, entrance exams, or other performance-based instruments.

If a mandate for competency is really the rationale for screening, the enrollment controls should reflect relatively fixed standards. Controls of this type may be effective at limiting the *caliber* of student who has access to the program, but they may not be effective at limiting the *number* of students to levels consistent with instructional resources. Under competency-based enrollment controls, it may be possible for enrollment pressures to remain strong even after the performance-based screening. Likewise, competency-based controls may be called for even when demand is not especially high.

Numerical enrollment caps. In some cases, fluctuating student demand — or administrative judgments about the relative importance of this demand compared to other factors — may leave a department with few reasonable options other than controlling enrollments. In these cases what is at issue is the shear number of students compared with the instructional workforce available to teach them. While it may be tempting to use performance- or competency-based instruments to limit enrollment in these cases, it is important to be honest about the intent. In particular, by casting the enrollment controls as performance- or competency-based screens, an academic unit risks losing credibility, especially if the screening standards become more lax or rigorous in response to decreases or increases in student demand. A more forthright approach is simply to establish a numerical enrollment cap. The unit can then limit the enrollment either by accepting the correct number of students on a first-come basis or by admitting the appropriate number of students from among the most promising applicants.

There may be other methods for managing staffing difficulties of this type. For example, some departments already experiment, on a regular basis, with different mixes of permanent and temporary instructional staff. Also worth examining — although they are may be far from panaceas — are strategies based on alternative course delivery modes. Is online instruction more effective? What are the possibilities for large-section formats augmented by smaller discussion sessions or preceptorials? Do blocked courses, summer school, or team-taught formats offer useful forms of flexibility?

Complicating factors. One possibly subtle effect of limiting enrollment in a high-demand major is that many students will have to move to other majors or perhaps to other institutions. To avoid simply transferring a serious problem from one academic unit to another, it is important to have some information about the magnitude of this effect and the units likely to be affected.

On the other hand, the resulting shift in demand may have beneficial effects. Students turned away from a highly subscribed major may move to a program that has plenty of capacity. Enrollment caps even have some potential to modulate the effects of ephemeral high demand driven by national trends. But this effect is likely to be small: students who make their first choice of major in response to a trend may be likely to make their second choice using similar criteria.

5. Appropriate Mechanisms and Policies for Controlling Enrollments

The array of incentives for controlling enrollments is complex, and different departments respond to different motivations for imposing such controls. The aggregate effect of approaches perceived as optimal by individual programs may not be optimal from a college- or university-level perspective. For this reason, a more broadly based approach is necessary. The following is an outline of processes and policies that Academic Affairs will follow:

a. The Office of Academic Affairs will pay careful attention to the adequacy of staffing in the undergraduate curriculum. Adequate staffing of courses required under the University Studies Program will receive a high priority in the allocation of new resources and in possible reallocation of existing resources. Other factors may also carry weight in these decisions. Among these factors are support for areas of distinction, responsiveness to statewide and regional workforce needs, and the likelihood of hiring high-caliber faculty. Academic Affairs will also pay attention to perennial enrollment pressures attributable to students' choices, recognizing that these pressures must carry some weight in the allocation of staffing resources. However, there is no commitment to allocate instructional resources in direct proportion to enrollments.[*]

b. In academic programs where there is a compelling mandate to ensure that graduates have a certain level of competency, competency-based enrollment control mechanisms may be appropriate. Any proposal to establish such a mechanism requires:

- A rationale explaining why competency-based screening is appropriate;

- An analysis of the screening mechanisms proposed, a summary of any costs to be borne by students, and a plan for continuously monitoring the effectiveness of the screening as part of the unit's assessment of student learning;

- Estimates of the impact of the proposed screening on student enrollments;

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[*] In fact *in practice* there has never been such a commitment at UW within the past two decades.

- An analysis of the workload and budget required to implement the screening and a proposal for managing them;

- Written approval of the affected college dean; and

- Written approval of the vice president for academic affairs. This approval will follow a formal discussion among all college deans, to allow for the identification of unintended impacts, consistency issues, and the potential for alternative approaches to the problem.

c. In academic programs where high demand drives the need to limit numbers of students, enrollment caps may be appropriate. In these cases, academic units may propose screening mechanisms that admit a specified number of students on a first-come basis or by using competency-based ranking. Any proposal to establish numerically based screening requires:

- An analysis showing why the unit is unable to meet existing or projected student demand, based on historical data quantifying enrollments, curricular scope, and workforce trends as well as qualitative information about modes of pedagogy and the potential for managing enrollment pressures via alternative methods of course delivery.

- An analysis of the potential for managing the problem by reassigning resources within the department. For example, is it possible to increase the number of teachers available for high-demand courses by offering low-demand courses less frequently? Is the department offering courses that duplicate material taught in other departments or in other courses in the same department? In this latter context, curricular mapping can serve both as an effective streamlining tool *and* as a key element in a compelling argument for enrollment controls.

- A proposed method for limiting enrollments.

- An analysis of the workload and budget required to implement the enrollment control and a proposal for managing them.

- An analysis of the likely trajectories of students who aspire to major in the unit's program but are turned down.

- Approval of the affected college dean.

- Approval of the vice president for academic affairs. As in the previous case, this approval will follow a formal discussion among all college deans, to allow for the identification of unintended impacts, consistency issues, and the potential for alternative approaches to the problem.

The following table summarizes the mechanisms.

Demand scenario	Mechanisms to address staffing problems
High demand for USP-required courses	Ensure adequate staffing through additional resource allocation or resource reallocation, if possible.
Perennial high demand for popular major	Ensure existing resources are being used efficiently
	Consider additional staffing in relation to other staffing demands and contributions to UW's goals and priorities
	Consider numerical caps (first come, first served, or by competition)
Transitory high demand or fluctuating demand due to popularity or market trends	Consider numerical caps (first come, first-served, or by competition)
High demand for programs that have mandates for professional competency	Consider competency-based controls
	Consider additional staffing in relation to other staffing demands and contributions to UW's goals and priorities
High demand for non-USP service courses	Include in any consideration of staffing for client departments.

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