Enrollment Management Goals Ad-Hoc Workgroup – Proposal on Screening Criteria and Processes for Continuing Students

BACKGROUND

In May 2020, a Senate-Administration workgroup produced the Capacity-Based Admissions Workgroup Report, and in July 2021, an implementational Undergraduate Enrollment Committee subcommittee produced the Enrollment Management Goals Workgroup Report. In December 2021, Senate Council endorsed, with caveats, both the former’s recommendations and the latter’s implementation plan. Senate Council asked that an Enrollment Management Goals ad-hoc workgroup be formed to discuss next steps – in particular with respect to the following:

1. Setting a target for each major, initially based on historical data
2. Creating more transparent media and communications to better inform students about all majors of potential interest to them
3. Determining opportunities for continuing students, including vetting screening criteria
4. Communicating process changes to departments and programs
5. Establishing the expectation and practice of conversation and collaboration between Enrollment Management and deans/departments

The workgroup was co-chaired by the Associate Vice Chancellor for Enrollment Management (EM) and the Dean of Undergraduate Education and had representatives from Admissions; Engineering; Equity, Diversity, and Inclusion; Institutional Research; The Council of Deans of Academic Advising; as well as Senate representatives from the Committee on Admissions, Diversity and Equity, Educational Policy, and the Undergraduate Council. It met six times between April and June 2022; it made significant progress on the first bullet point (setting universal targets) and had robust discussions around the third (continuing students). Additionally, informed by workgroup conversations, EM/Admissions has made progress on the second item (communications to students) by adding tailored emails to applicants regarding their requested majors and on the fifth (communicating with deans/depts) by piloting new reporting and data-sharing structures with Deans in regard to applicant data and projections. The representative from Institutional Research created multiple dashboards and reports that formed the basis of recommendations and discussions.

The workgroup is continuing to meet during the 2022-2023 academic year. This document presents a proposal for the Divisional Senate to consider regarding continuing students who seek to switch into a major they were excluded from at admission. In particular, we make recommendations around screening criteria and other selection processes. For context, we will first summarize the universal target approach and then propose a consistent and equitable approach to allowing continuing students switch majors.

Universal targets

Both previous workgroup reports recommended sunsetting the current capacity-based admissions pilot with a more holistic approach to enrollment management. Rather than asking departments/majors (henceforth ‘majors’) to declare their enrollments as ‘capped’ and bifurcating majors into capped majors, with admissions targets, and uncapped majors, without such targets, all majors will have some notion of a target. This approach hopes to achieve a more intentional approach to enrollment
management – one that invites campus conversations about the shape of incoming cohorts. In particular, it hopes to achieve the following:

- Majors that have needed to limit enrollments, due to high demand and limited resources (i.e., selective capped majors), will still be able to do so.
- Majors that have been capped, but have not met historic targets, will continue to have targets to ensure their enrollments do not increase beyond capacity.
- Majors that have had rapidly increasing enrollments will have a backstop against unrestricted increases.
- Majors with historically low enrollments will be encouraged to continue conversations around their enrollment goals and how to achieve them.

Enrollment Management will work with the Division of Undergraduate Education to provide suggested targets for each major. These will be based on historical caps and historical enrollments (calculated as percentage of campus enrollment). Departments will have the opportunity to discuss and propose modifications to their targets. During the admissions cycle, before offers are made, admissions will contact departments and schools if predicted yield may exceed the targets. The department can then ask that Admissions stick to the target. The result will be a dynamic capping – each year might yield different majors turning away students, and these numbers may vary. While the system is more complex than the existing capped major pilot, it will more effectively manage enrollments as demand changes and should result in better communication between Enrollment Management and departments and schools.

CONTINUING STUDENTS: CURRENT PROCEDURES

The issue of continuing students changing to a high-demand major is the most difficult aspect of the Capacity-Based Admissions pilot. The following all seem to be true:

i. Given the need to limit admissions to some high-demand majors, we need to also limit the ability of continuing students to change to these majors.
ii. The current procedures are stressful for all students seeking to change to selective majors; these procedures disproportionately negatively impact under-represented students.
iii. The problem is complex and does not lend itself to a simple solution.

Screening criteria and selection procedures for continuing students

Students who are admitted to UC San Diego but not to a capped major of their choice are either admitted as undeclared (first-year students only) or to an alternative major. The alternative major is usually their second-choice – this may be a capped major or an uncapped major. In some cases, students are not admitted to either first- or second-choice major, if both are capped. Continuing students are able to seek admission to a capped major through the capped major tool. To do so, students must satisfy screening criteria and, in some cases, undergo a subsequent selection process.

All of the capped majors use screening courses to admit continuing students. The average number of screening courses required is around 5, but it varies by department from 1 to 10. Most departments use screening courses from math and science regardless of the department, but many departments also include screening courses from their own department. In a few cases, all screening courses are within
the department. All departments require the screening courses be passed with a C- or better, and most departments have a higher requirement for either individual or average screening course grades. Typical cutoffs for average grades in screening courses are between a B- (2.7) and a B (3.0), though a couple are lower, and a few are slightly higher.

Several departments with capped majors admit every student who applies and meets the screening criteria. The remaining capped major departments apply a secondary selection process to students who meet the screening criteria. Most majors rank students by GPA in the screening courses (occasionally using cumulative GPA as well) and admit the students with the highest GPAs in these courses, until the quota is reached. One department uses a lottery to select from all students who meet the minimum screening criteria, again, up to the quota.

**Effects of current procedures**

There are, then, two factors that determine whether a continuing student is able to gain access to their capped major of choice: meeting the minimum screening criteria and, for some very selective majors, a secondary sorting procedure (GPA, lottery, etc.). There is evidence that these processes keep students from their first-choice majors, have an effect on retention, and disproportionately affect under-represented students, as described below. In some cases, it is clear that the screening criteria present roadblocks; more data are needed to see the effects of the secondary sorting procedures.

Before the Capacity-Based Admissions pilot, students with undeclared status were only those who had not chosen a major (this is possible for first-time full-time students only; transfer students must choose a major). With capped majors, some students are forced into undeclared status when they do not get into their first-choice major (and either fail to gain admission to second-choice major or have no second choice). Because not all capped majors meet their targets, the forced undeclared students come from only a few first-choice majors:
Based on these data, only CSE, MAE, Bioengineering, and, perhaps, ECE and Data Science should be considered to be selective majors.

A number of negative retention effects follow from forced undeclared status; the following represent data aggregated from 2014-2020 Fall cohorts, comparing the campus average with the retention of under-represented minority (URM) students:

We see, based on the campus average, that students in the forced undeclared category have slightly lower retention rates, with a greater gap at the second year. However, the data from under-represented students show a significant effect that widens to nearly 10% in the second year. The more
significant numbers in the second year suggest that students leave the university when they cannot get into their major of choice.

The following charts show how retention of forced undeclared students has played out over the 2014-2020 span of the Capacity-Based Admissions pilot. While we see fairly consistent rates in the campus average (‘all students’), there is more volatility in the retention of forced undeclared under-represented students, with often significant disparities:

The following shows the percentages of students who, from 2014 through 2020 cohorts, successfully changed from forced undeclared status to the first-choice majors they listed on their applications by the fall of their third year:

These data suggest that in general, approximately 1 in 5 students student admitted as forced undeclared will ultimately end up in their original major of choice, while for under-represented students this ratio is close to 1 in 20.
Effects of screening criteria

Evidence that the screening criteria themselves prevent and/or discourage students from moving to capped majors may come from an examination of the percentages of students who receive Ds, Fs, or withdraw from various screening courses (DFW rates); these data are for all students taking these courses (i.e. not only those wishing to transfer into the major) between 2017 and 2021:

Several capped majors require the Calculus for Science and Engineering sequence (MATH 20A-C). Computer Science and Engineering requires, among others, CSE 8B and 11. Physics requires Math courses (including from the 20 sequence), as well as PHYS 4A-B. The DFW rates for all of these classes is high – usually over 10%; this suggests that a large number of students seeking to move to a capped major will not meet the minimum screening criteria, independent of any secondary selection process (note that these data include all students taking these courses, not only those from the forced undeclared category). The opportunity gap between the campus average and under-represented students is even more striking: a fourth of under-represented students will not meet the Math screening criteria; almost a third will not meet CSE’s criteria, and over a third will not meet those of Physics.

This last case is particularly striking: Physics typically accepts all students who meet the screening criteria and does not meet its admissions caps; hence, the screening criteria potentially exclude under-represented continuing students from the major (although we do not know how many actually try to move into the major – these data, again, represent all students who take 4A-B).

To summarize, it is clear that a relatively small percentage of students who are admitted into the forced undeclared category are able to subsequently move to their first-choice major; this has an effect on retention, particularly after the second year. Both of these trends are more acute for under-represented students. While we don’t have data that show the effects of a secondary selection process, we know that common screening courses have high DFW rates, suggesting that the low rate of movement to first-choice majors may have to do with GPAs in these courses; again, under-represented students are more negatively affected by screening criteria.
RECOMMENDATIONS

Because screening criteria are potential roadblocks for changing to a selective major – particularly for under-represented students - the ad-hoc workgroup discussed ways to minimize their use and make them more inclusive. The workgroup makes the following recommendations, which essentially treats continuing students in the same way as students who enter the major at admission:

(i) Students who are not admitted to their first-choice major will receive advising regarding the process of switching to the major as a continuing student; the advice will include:
   a. Taking a first-year curriculum that includes courses specified by the major
   b. Achieving good academic standing in the first year
   c. Timing and procedures around major change requests
   d. Discussion of the likelihood of moving to a particular major

Note that (i.a-b) essentially treat continuing students the same as students who are admitted to the major – these latter students are allowed to remain in the major, even if they do not achieve high grades in the first year. Indeed, all majors currently allow students to remain in the major even if they are on academic probation and, in many cases, even when subject to disqualification.\(^1\)

Turning to secondary selection processes, the workgroup proposes the following:

(ii) All majors reserve a number of slots for continuing students (in some cases, this will be unlimited; however, in selective majors, the number has ranged from about 50 to 100, depending on the department).

(iii) If a department receives more applications from continuing students than reserved slots, all students who meet the criteria (i.a-b) will be placed in a lottery that randomly selects the number of students equal to the number of available places.

The following examples illustrate how this would work.

Major A: The number of applicants listing major A as a first-choice does not suggest that the yield will exceed the major’s target. This is confirmed by yield models as Admissions admits students. All students are admitted to the major, and continuing students are free to switch to major A.

Major B: The number of applicants is high; Admissions contacts the department with a projected yield that exceeds the major’s target. The department agrees to allow the excess students into the major. All students are admitted to the major, and continuing students are free to switch to major B.

Major C: The number of applicants is high; Admissions contacts the department with a projected yield that exceeds target. The department asks that students be admitted only up to the target. Students who are admitted to the university, and applied with major C as their first-choice and not allowed into major C are either admitted to a second-choice major or as undeclared.\(^2\) These students are advised as to their options for changing to major C. Students who wish to make this change may do so if (a) they

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\(^1\) There is no formal mechanism to force students to leave a major. Students who are subject to disqualification (GPA < 1.5) may have to leave the university (although, generally not the first time they are in this category).

\(^2\) There is a possibility that students may also be turned away from this second-choice major.
complete the specified coursework and (b) they are in good academic standing. At this point, there are two possibilities:

- The number of students attempting to switch into major C is less than or equal to the number of slots reserved for continuing students. In this case, all students who apply, have completed the specified coursework, and are in good academic standing are allowed to change into the major.
- The number of students attempting to switch into major C is greater than the number of slots reserved for continuing students. In this case, all students who apply, have completed the specified coursework, and are in good academic standing are placed in a lottery that randomly selects the number of students equal to the number of available places.

Note that these recommendations standardize the way continuing students may apply to majors with resource restrictions. It is aligned with the dynamic nature of the universal target approach – only when a major turns students away will those students be advised to take a specified curriculum (if they want to try to change to the major); these majors may vary year to year. It also adjusts the approach for screening curriculum GPA to treat continuing students more like students who entered the major at admission. Finally, it also creates a fairer secondary selection criterion that is employed only when needed.

Some faculty may worry that these recommendations set the bar too low and that their majors will be flooded with less qualified students. However, the following should mitigate this concern:

- Again, these recommendation result in nearly equal treatment for students who enter the major at admissions and those who enter as continuing students.
- Not all continuing students admitted under a lottery will be at the low end of the GPA spectrum.
- The number of continuing students should not have an outsized effect on the student population.

We hope that these recommendations will create a consistent, clear, and fair approach to the question of admitting continuing students into selective majors. While it won’t solve all of the problems (e.g., the DFW rates may prevent students from meeting the screening criteria), we believe it is an improvement over the current system, which we view as inequitable.

We look forward to the Senate’s response to these recommendations.

Enrollment Management Ad-Hoc Workgroup

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