EAB

Maximum Capacity Toolkit

Tools to Improve Reliability of Course Enrollment Capacity

Academic Performance Solutions

Academic Performance Solutions

Project Director

Lauren Burakowski, PhD

Contributing Consultant

Christina Mechler Malin

Managing Director

Rachel Keller Eisman

Table of Contents

Introduction

Max Cap Diagnostic

1

Introduction

Measuring Instructional Capacity Depends on Reliable Max Caps

Institutions are continuously searching for ways to improve academic decision making to meet student needs and eliminate waste. A critical factor to becoming more efficient is understanding where instructional resource allocation does not match student demand.

Fill rate analyses[1] are one way to surface these types of mismatches. However, these analyses are only as reliable as the data from which they are derived. Fill rate analyses depend on having an accurate count of the number of students enrolled in a course or section as well as the maximum possible enrollment capacity (max cap). Institutions, though, are finding that their max caps are unreliable indicators of true capacity.

Inaccurate section fill rates result in suboptimal course planning and capacity management, commonly manifesting as bottlenecks or underfilled classes. These non-optimal situations can impair student progress through inconsistent classroom experiences, course sizes not matched to room assignment or pedagogy, and inability to register for required classes. Non-optimally filled courses also lead to unbalanced faculty workloads.

While many institutions are aware of this problem, tackling it head on can be complicated and fraught. This toolkit provides the resources to support working toward reliable max caps that afford understanding of true capacity, accurate course planning, and efficient resource allocation.

33%
APS members that have identified enrollment capacity documentation improvement as a post go-live priority

---

Student Success at the Heart of All Efficiency Efforts

"Course planning and capacity management are helpful, but the true reason to set enrollment caps is to make sure students are successful in appropriate class sizes and settings."

David Clark
Interim Dean, College of Letters & Sciences
UW-Milwaukee

Diagnosing the Root Causes of Inaccurate Max Cap Documentation

There are two distinct factors that contribute to unreliable max caps: lack of, or poorly enforced, policy to set caps; and leveraging max caps as an enrollment management tool. When there is no policy in place, faculty are able to set max caps based on preferences, and colleges and departments may maintain different standards, resulting in widely variable max caps even for similar courses. In some cases, even with a policy, max caps are adjusted during registration to control enrollment, such as changing capacity to zero to control which students register, or to prevent further enrollment. If these behaviors are occurring on your campus, your max caps are likely leading to an inaccurate portrayal of your institution's instructional capacity.

Common Behaviors Resulting in Unreliable Max Caps

Lack of Policy or Inadequately Enforced Policy

- Faculty set max caps for each of their sections based on room preference or desired class size
- Departments and colleges have differing standards for max caps within course types
- Variability in section size within course types across the same or similar departments
- Max caps for the same course decrease or change unpredictably over time

Enrollment Management Challenges

- Max caps are reverted to zero prior to registration to control which students enroll
- Max caps are changed to zero to close classes and stop enrollment
- Max caps are slowly increased for sections of a course across the registration period to even out section enrollment

---

1) Fill Rate: The percentage of seats that are filled in a course or section at the last posted enrollment date. Course Enrollment divided by Max Cap.

Source: Academic Performance Solutions interviews and analysis.

Introduction

Recognizing the Pitfalls of Misguided Max Cap Practices

The behaviors contributing to unreliable max caps primarily originate from faculty making small, seemingly logical and harmless decisions to solve immediate problems. For example, some institutions interviewed by APS have found that faculty set max caps to the size of the room where they want to teach to ensure they are assigned that room. Independently, each of these decisions does not cause any issues, but when viewed in aggregate, the accumulation of many small decisions leads to serious issues with data quality and disrupts the picture of true instructional capacity.

In fact, in an analysis of the entire APS collaborative, 84% of APS members have at least one section with max caps of zero, and 17% of those members have max caps of zero for more than 10% of their sections. Max caps of zero occur across all course types, but are particularly concentrated in practicum courses as on average, 5.6% of all sections of practicums in the collaborative have max caps of zero. Fill rates cannot be calculated when sections caps are set to zero. Lack of fill rate analyses prevents institutions from evaluating the instructional capacity of those sections and associated programs.

In addition to max caps of zero, another common result of unstandardized expectations for max caps is variability in capacity for sections of the same course. Across the APS Collaborative, 37% of multi section courses have variable max caps between sections of the same course[1], with a median difference of 12 seats[2]. Variable section caps within a multi section course obscure the true capacity of those courses and leads to inconsistent student experiences.

Multi Section Courses with Different Max Caps

The first step to mitigate these consequences is to develop an understanding of the root causes of max cap data quality issues at your institution.

Case in Brief: Pepperdine University Pinpoints Reasons for Inconsistent Max Caps

Pepperdine's Director of Business Intelligence interviewed faculty and administrators to identify the primary reasons why the max cap field was not being used appropriately in Pepperdine's enrollment management software.

One discovery was that departments were setting max caps to zero during the registration period to manually maintain wait lists for the closed, filled courses. This interview and discovery process allowed the director to focus improvement efforts on creating targeted solutions for the identified problems.

▶ Use *Tool 1: Max Cap Diagnostic* to surface the behaviors and issues behind unreliable max caps at your institution.

---

1) Analyses were conducted on aggregate APS data for the Fall 2016 and Spring 2017 terms, excluding the Summer term and Individual Instruction course type, accounting for course type.
2) Median of non-zero differences.

Source: Academic Performance Solutions interviews and analysis.

eab.com

Tool 1: Max Cap Diagnostic

Use this diagnostic to assess the causes of max cap data issues. These questions map factors that reduce unreliability of max caps to the underlying issue(s) and focus improvement efforts on corresponding solutions. Your institution may be experiencing one or both of these issues.

If you are unsure of the reasons why max caps are being used for enrollment management or cannot complete the diagnostic, speak with faculty or department administrators to gather information and develop an understanding of the motivations at play.

A. Policy Issues

> A1. Does your institution have a policy governing how course max caps are set?
>
> ☐ Yes   ☐ No

If you answered "Yes", refer to the Sample Policy in *Tool 2: Max Cap Policy Builder* to confirm critical components (pages 15-16). If you answered "No", refer to *Tool 2: Max Cap Policy Builder* (pages 9-16).

> A2. Do you see significant variability in section capacity within course types, across the same or similar departments?
>
> ☐ Yes   ☐ No

> A3. Do sections of the same course have different max caps?
>
> ☐ Yes   ☐ No

> A4. Is there a downward trend in department max caps by course type over time?
>
> ☐ Yes   ☐ No

> A5. Are max caps of new courses governed by a different policy than current courses?
>
> ☐ Yes   ☐ No

If you answered "Yes" to any of the questions A2-A5, refer to *Tool 2: Max Cap Policy Builder* (pages 11-13).

Source: Academic Performance Solutions interviews and analysis.

Tool 1: Max Cap Diagnostic

B. Enrollment Management Issues

B1. Are max caps being set to zero prior to the registration period to control enrollment?

☐ Yes   ☐ No

B2. Are max caps being reverted to zero during registration to limit enrollment?

☐ Yes   ☐ No

B3. Are max caps being changed to zero to close classes and stop enrollment?

☐ Yes   ☐ No

B4. Are max caps slowly increasing for sections across the registration period to even out enrollment across sections of a course?

☐ Yes   ☐ No

B5. Do max caps increase throughout the enrollment period for single section courses?

☐ Yes   ☐ No

If you answered "Yes" to any of the questions in section B, refer to *Address Enrollment Management Needs* (pages 16-18).

 eab.com

EAB

Build a Maximum Course Enrollment Capacity Policy

Max Cap Policy Builder

TOOL

2

eab.com

Build a Maximum Course Enrollment Capacity Policy

A policy that governs course enrollment capacity should be designed to support your institution's specific goals. Typically, creating a max cap policy is a collaborative process between the provost's office and deans to provide guidance that will accommodate student demand, ensure equitable faculty workloads, and optimize the use of institutional funds and physical space. An institution-wide policy ensures a standard set of expectations as well as enables evaluation of resource utilization and true capacity across campus.

Policies can either provide general guidance for how to set max caps, or be more prescriptive with specific targets for class sizes based on course type and pedagogy[1]. Guidelines provide factors for departments to consider, but allow departments to set specific max caps (sometime within broad ranges). Prescriptive policies establish concrete figures or ranges for course capacities. Either type of policy can be successful in improving max cap data quality, so consider your institution's unique culture and needs. For example, guidelines may be best to garner support from faculty, but a prescriptive policy might be necessary in cases of severe resource constraints where the institution needs to control costs more tightly.

Key Components of Max Cap Policies

Effective max cap policies typically include the listed elements.

❑ Goals and rationale, including how the policy will help students and faculty

❑ Guidelines or prescriptions for max caps

❑ Clearly defined exceptions and related procedures

❑ Guidance for assigning capacities to new courses

❑ Minimum enrollment requirements

❑ Course cancellation policy for courses that do not meet the minimum enrollment requirements

❑ Enforcement mechanisms and clear consequences

❑ Process to evaluate the policy's effectiveness, including a data collection schedule, relevant metrics, and definitions of success for those metrics

Considerations When Determining the Right Max Caps

Max cap guidance should be broken out by course type and division, with typical ranges of plus or minus 3-5 students to provide flexibility. Require sections of the same course to have the same enrollment capacities (within a buffer of plus or minus 5 students). Consider the following when establishing max cap guidance.

Course Attributes

Carefully consider course type and pedagogy, course division, classroom size, expected and historic enrollment, and the amount of time and effort instructors must dedicate to individual students (in class or through grading).

Observations from EAB Research

EAB research indicates that max caps are often set between 18 and 25 for courses that require more instructor time or closer relationships between students and their instructors; specifically, with a focus on writing, discussion, public speaking, or experiential learning. Departments often set max caps for major courses between 20 and 30[2].

▶ Use *Tool 2: Max Cap Policy Builder* to create an effective and sustainable class size policy.

Recommendations by Associations

Recommendations from discipline-specific associations should be considered in determining the right max caps, particularly in cases where these class sizes are part of accreditation. For example, the National Council of English Teachers recommends that writing classes should be limited to 20 students or fewer[3]. The Mathematical Association of America suggests that to ensure effective pedagogy and sufficient opportunities for high-quality student-faculty interactions, sections should be limited to 30 students[4].

1) Policies often exclude independent study, thesis/dissertation, and practicum course types, as well as courses for which accreditors regulate size.
2) Effects of Course Section Enrollment Caps, Academic Affairs Forum, EAB.
3) Statement of Principles and Standards for the Postsecondary Teaching of Writing, National Council of English Teachers, http://www2.ncte.org/statement/postsecondarywriting/.
4) Guidelines for Programs and Departments in Undergraduate Mathematical Sciences, Mathematical Association of America, https://www.maa.org/programs/faculty-and-departments/curriculum-department-guidelines-recommendations/guidelines-for-undergrad-programs.

Source: Effects of Course Section Enrollment Caps, Academic Affairs Forum; Academic Performance Solutions interviews and analysis.

Tool 2: Max Cap Policy Builder

Craft a policy to provide guidance to academic leaders and faculty regarding expectations for class sizes and capacity utilization. Use the guide below to build core components. Once you've determined the critical content and structure, use the sample policy on pages 14-15 to help draft a full policy.

Decide on Policy Type

Decide to establish general guidelines or set prescriptive limits.

☐ General guidelines ☐ Prescriptive limits

Goals and Rationale

Select policy goals to include in the description and guide rationale.

☐ Establish more reliable max caps   ☐ Measure true instructional capacity   ☐ Improve course planning

☐ Reduce the number of empty seats   ☐ Achieve more efficient resource allocation   ☐ Other_____ _____

Guidelines or Prescriptions for Max Caps

Insert specific numbers or ranges into the table below. If providing more general guidelines for departments, write out factors or processes for determining max caps.

	Lecture	Lab	Discussion	Seminar
Lower Division				
Upper Division				
Graduate				

▶ Tip: Consider the Room Assignment Process

Institutions often determine room assignments based on course enrollment capacities. Due to the interdependence of the two, the room assignment process needs to be aligned with the course capacity policy.

Reference *Increasing Share of Centrally Scheduled Classrooms*, an excerpt from the Facilities Forum's best practice study *Working with Academic Leaders to Improve Space Utilization*, to learn how to incentivize academic units to return classrooms to a central scheduling pool.

Source: Academic Performance Solutions interviews and analysis.

Tool 2: Max Cap Policy Builder

Clearly Defined Exceptions

Outline predetermined exceptions to the policy and exceptions that may be requested.

☐ Independent study, thesis, and dissertation course types

☐ Courses with externally mandated capacity limitations

☐ Large, gateway lecture courses

☐ Large online courses

☐ Other_____ _____

What is the process for obtaining approval for exceptions?

Guidance for New Courses

Select components to provide a procedure through which max caps are determined for new courses.

☐ Set new max caps based on policy

☐ Require approval by department chair or dean

☐ Other_____ _____

☐ Consider expected enrollment

☐ Require written justification for deviations from policy

Minimum Enrollment Requirements

List the minimum number of students that must be enrolled in a course to prevent cancellation.

	Lecture	Lab	Discussion	Seminar
Lower Division				
Upper Division				
Graduate				

Tool 2: Max Cap Policy Builder

Course Cancellation Policy

Select policy components for canceling low-enrollment courses, keeping in mind that some courses below the minimum are not candidates for cancellation (e.g., capstones, major requirements).

- [ ] Cancel courses with enrollment below minimum
- [ ] Require written approval from dean for deviation from policy
- [ ] Reallocate instructor time to bottleneck courses

- [ ] Outline exceptions to policy (e.g., capstone, etc.)
- [ ] Share cancellation date of under-enrolled courses
- [ ] Other_____
_____

Clear Enforcement Mechanism(s)

Describe how the max cap policy will be enforced, aligning enforcement mechanisms to the culture of your institution. Clarify roles of stakeholders.

- [ ] Make budget requests, particularly those for new faculty lines, contingent on compliance
- [ ] Establish an oversight committee with faculty members to garner buy-in and compliance

- [ ] Provide oversight from dean or registrar to address issues with specific faculty and adjust max caps/cancel courses
- [ ] Other_____
_____

Evaluation of Policy Effectiveness

Detail the evaluation process to determine if the policy has been successful in meeting goals.

Who is responsible for evaluation?

What are the evaluation criteria and how will they be applied?

When will the evaluation occur?

What are the relevant analyses?

Record the metrics and their definitions that will be used in the evaluation process. Include the target for each metric, or definition of success.

Metric	Definition	Target

Source: Academic Performance Solutions interviews and analysis.

eab.com

Tool 2: Max Cap Policy Builder

Sample Policy

Course Enrollment Capacity Policy

This policy provides prescriptions for setting maximum course enrollment capacities (i.e., max caps). Also included are the minimum course enrollment and class cancellation policies. The goal of this policy is to support reliable course enrollment capacities. These capacities allow administrators to plan course schedules and allocate resources to best support student success, as well as fairly distribute workload among faculty and create a more uniform classroom experience for all students.

Maximum Course Enrollment Capacities

All courses without specific exemptions must be offered with an enrollment capacity within the ranges listed below (within a buffer of plus or minus 5). Departments have the option of making more specific recommendations within these ranges.

Max Caps	Course Type				
Course Level	**Lecture**	**Laboratory¹**	**Discussion**	**Recitation**	**Seminar**
Lower Division (100/200 level)	50-75	18-25	25	30	20
Upper Division (300/400 level)	30	15-25	20	25	15
Graduate	20	10-25	15	15	10

Exceptions

Independent study, thesis, dissertation courses, and courses with legal capacity limits are excluded from these requirements. Large, gateway lecture courses are exempt from these ranges. However, capacity for those courses must be approved by the department chair.

Writing-intensive courses and other courses that place significant demands on instructor time (due to the number of hours interacting with students, time spent grading and providing meaningful feedback on work outside of class, etc.) are more strictly capped to ensure a high-quality, consistent student experience and balanced faculty workloads.

Reduction of Variability Between Sections of the Same Course

Courses with multiple sections must have the same enrollment capacities across sections (within a buffer of plus or minus 5) to ensure a consistent student experience.

New Courses

Enrollment capacities for new courses should be set based on the targets listed in this policy. Approval from the department chair is required.

Shares goals and rationale for the policy; explains why the policy will help students and faculty

Provides guidelines or prescriptions for course enrollment capacities

Clearly defines exceptions

Provides guidance for new courses

---

1) Many institutions set max caps for Laboratory courses to the room capacity.

Source: Academic Performance Solutions interviews and analysis.

eab.com

Tool 2: Max Cap Policy Builder

Sample Policy

Course Minimum Enrollment Requirements

If enrollment does not reach the minimum specified number by the week before the term begins, the course or section will be cancelled. This deadline exists to encourage students to register in a timely fashion, as well as to allow the instructor to teach a different course that term.

Course Level	Minimum Course Enrollments
Lower Division (100/200 level)	15
Upper Division (300/400 level)	10
Graduate	5

Outlines course cancellation policy and deadline

Lists minimum enrollment requirements

Enforcement Mechanisms

Faculty are held accountable for reporting realistic enrollment capacities for their courses. Courses with enrollments below the minimum will be cancelled. Faculty whose courses are consistently underfilled will receive tailored guidance for setting an appropriate capacity to allow for accurate room assignments and fill rate analyses.

Course Cancellation Policy. If enrollment does not reach the minimum specified number by the week before the term begins, the course or section will be cancelled.

Contains clear enforcement mechanisms

Evaluation and Data Collection

Policy effectiveness is evaluated annually, focusing on the guidance provided for enrollment capacities, section fill rates, and student demand.

Data will be collected and analyzed each term through the Academic Performance Solutions Platform and Institutional Registrar. The list of metrics is provided below. Data should be aggregated at the course and department levels. The resulting report will be shared with the provost. Department-level analyses will be shared within departments to afford tracking progress over terms.

Describes annual policy evaluation, including data collection schedule and metrics

Metric	Definition
Max Cap	Total number of seats available in a course
Course Enrollment	Total number of students in a course at the census date
Course Completion Rate	Percentage of students who complete and earn credit for the course

Customize for Unique Needs

This template provides standard language to support policy creation. Additional details may be necessary for an effective, customized policy.

Address Enrollment Management Needs

Address Enrollment Management Needs

Ensure the success of your policy by addressing enrollment management needs that have historically resulted in behaviors undermining accurate max cap documentation. Policy alone will not result in reliable max caps. Even if caps are set according to a policy, they are often changed to manage enrollment instead of using functions built into enrollment management software. Enrollment managers can leverage the capabilities of the software to provide faculty and administrators with alternative solutions to problems that were previously solved by adjusting max caps.

Three Ways to Avoid Creating Erroneous Max Caps

1 Give Priority Registration through Reserve Capacity Function

One of the common reasons faculty and administrators revert a cap to zero prior to registration is to control which students can register by requiring students to manually request to register. This allows priority to be given to specific students but undermines the ability to track true capacity. Instead of setting the max cap to zero, administrators can use reserve capacity functions in most registration systems to tag spots in key courses for targeted student populations before the registration period. Administrators and faculty will no longer need to actively manage enrollment through max caps.

Three Student Populations to Accommodate with Reserve Capacity

Super-Seniors
Students who have already completed over 120 credit-hours (or four years of instruction) are an ideal target for seat cap overrides to ensure quick graduation.

Re-enrolled Students
Re-enrolled students who did not register during the scheduled period often need seat cap overrides in order to be placed in required courses they have missed.

Transfer Students
Transfer students starting in the fall can register early through an online orientation module to minimize seat competition with returning students.

2 Leverage Student Permissions Requirement

Faculty sometimes set max caps to zero during the registration period to require that students obtain permission to register. This practice not only negatively impacts max cap reliability, it also increases the number of forms necessary and complicates the enrollment process for students. Instead, the faculty member can leverage permission functionality in the registration system, providing permission numbers to students who wish to register for the course. This removes the additional forms and complications from the registration process and maintains the integrity of max caps.

Case in Brief: University of Wisconsin-Milwaukee

Challenge: Faculty in the College of Letters and Sciences were using the max cap field to manage enrollment, resulting in widely varying max caps and limited the ability to analyze capacity utilization.

Solution: The interim dean of the college identified an unused field in UWM's enrollment system and established a process to capture both the true max cap, based on course type and pedagogical needs, as well as the rolling max cap that could be adjusted during registration. This resolution allows the college to both document accurate max caps and manage enrollment effectively.

Source: Instructional Capacity Playbook, Academic Affairs Forum; Academic Performance Solutions interviews and analysis.

eab.com

Address Enrollment Management Needs

3 **Manage Wait Lists Centrally and Do Not Limit Wait List Size**

Uncapping and centralizing wait lists allows institutions to size excess demand for course additions once the registration period has begun. Automating the wait list through existing registration systems frees up instructor time for curriculum planning and other activities. Typical registration systems allow central administrators to manage course wait lists and set wait list size limits, including setting no limit or setting a limit well above the registration capacity. Viewing wait lists centrally ensures that administrators can easily identify capacity-constrained courses and those where demand is well below the registration capacity.

Get a True Picture of Student Demand

20-100

5

Capped wait list

Uncapped, centrally-managed wait list

Incomplete Picture of Demand

Accurately Gauge Demand
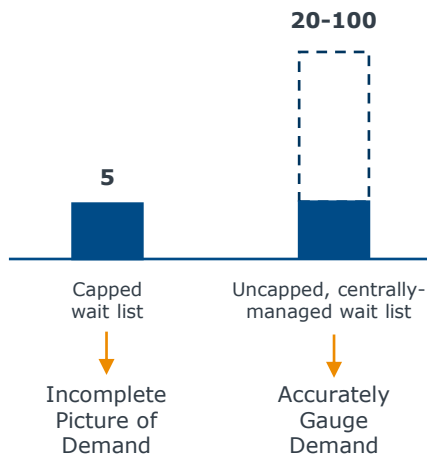
Prevent Students from Gaming the System

No wait-listing for multiple sections of the same course

Include wait-listed courses in credit-hour maximum

Over-Filled Wait List

When wait list size reaches minimum section size, add a new section of the course, taught by a faculty member whose scheduled class did not meet the minimum

A common faculty concern around uncapped wait lists is that students will use wait lists to optimize their schedules based on preference rather than need—not just gaining entry to required courses, but repeatedly altering their registration in an attempt to secure popular course times and instructors.

To mitigate this concern, bar students from wait listing themselves for more than one section of a course or include wait-listed courses in the maximum number of credit hours allowed (usually 18-19).

For more information, please reference this resource from the Academic Affairs Forum:

• The Instructional Capacity Playbook
Realigning resources to meet changing enrollment patterns

eab.com

EAB

Implement Your Policy and Solutions

Checklist to Establish and Implement Policy

TOOL

3

Implement Your Policy and Solutions

To successfully implement your policy and changes to enrollment management processes, you'll need to create a plan to engage faculty, communicate the impact of the plan, and evaluate its effectiveness to inform future updates. This change management support will increase buy-in and drive behavior change to help imbed the new max cap policy and enrollment management techniques in your institution's culture.

Engage Faculty

Before rolling out your policy, gain faculty support by explaining the rationale and benefits of the policy and give faculty a designated role in the development process. Bringing faculty along with the process will allay fears of loss of control over teaching environment and increase compliance with the completed policy.

Recruit Faculty Champions into the Policy Creation Process

Champions should be open-minded, collaborative faculty members across a range of departments. They answer questions and address concerns from the faculty's point of view, providing a trusted voice in the implementation process.	Test and troubleshoot new enrollment management tactics with these champions to gather their feedback.	During implementation, the champions become early adopters who encourage their colleagues to engage with the new techniques.

Communication

Communicate the policy to stakeholders clearly and regularly, including results of policy evaluation.

Communicate Enrollment Management Deadlines	Communicate early and often to faculty members and administrators about important enrollment management deadlines. Emails should be clear and concise, and outline next steps for the target audience.
Share the Broader Goals	Elucidate the benefits of the max cap policy for all stakeholders. For example, it may result in more balanced allocation of teaching load, less time spent managing enrollments manually, and more efficient distribution of resources.
Vary the Mode of Communication	In addition to communicating through emails and announcements, hold in-person meetings to communicate why these changes are being made as well as to allow for questions and feedback. Depending on the size of your institution, meet in person with both deans and department chairs.

Enforcement

Enforcement of the policy should be clearly communicated to faculty and administrators and consistently applied to prevent surprises. The policy should include a mechanism for identifying and resetting errant class sizes, such as review and adjustment of noncompliant courses. For example, the policy can require departments to be in compliance with the max cap guidance before requesting additional faculty lines.

Source: Instructional Capacity Playbook, Academic Affairs Forum; Academic Performance Solutions interviews and analysis.

eab.com

Implement Your Policy and Solutions

Data Collection and Evaluation

Collect and analyze data on completion rates, section fill rates, and enrollment trends to demonstrate success of the policy, or highlight areas to target for improvement. Use analyses on data from prior to implementing your policy as a baseline to measure against, then set goals or targets to define success for the policy.

Recommended Analyses for Regular Evaluation

- Review max caps for courses with high levels of student-instructor interaction to ensure quality is not compromised and completion rates are consistent with previous terms. Steady completion rates indicate that student achievement has not been negatively affected by the policy.

- Check to ensure that max caps of sections of the same multi section course are the same.

- Explore enrollment trends. Steady or increasing enrollment with healthier fill rates and no drop in completion rates may signal success.

- Examine trends in max caps and fill rates by department. If max caps have been adjusted and fill rates have improved, the policy is affording more accurate course planning.

Define Success

Define a target for success for each analysis. For example, success in inflecting max caps might be defined as 99% of courses in compliance with max cap recommendations.

Update Policy

Based on the results of the data analysis and evaluation, update the policy as necessary to ensure that it supports institutional goals.

▶ Use *Tool 3: Checklist to Establish and Implement Policy* to support successful policy implementation.

Source: Academic Performance Solutions interviews and analysis.

Tool 3: Checklist to Establish and Implement Policy

A successful policy and use of new tactics requires change management during implementation to foster lasting change. Use this checklist to confirm you have addressed the key components of a policy and positioned it to be successful.

Gather Information

- ☐ Compile current max caps, if available, and evaluate variation by department, course type, and course division
- ☐ Review policies of peer institutions
- ☐ Document current challenges (use *Tool 1: Max Cap Diagnostic*)

Develop Policy

- ☐ Draft policy (use *Tool 2: Max Cap Policy Builder)*
- ☐ Recruit faculty champions to participate in drafting policy and provide feedback

Solicit feedback from:

- ☐ Registrar
- ☐ Department Chairs and Deans
- ☐ Faculty Champions

Communicate Policy

- ☐ Post policy where relevant stakeholders can access it

Email and/or in-person meetings with:

- ☐ Central administrators
- ☐ Faculty
- ☐ Departmental administrators

Evaluate Policy

- ☐ Collect data and conduct recommended analyses (*see page 19*)
- ☐ Evaluate policy

Source: Academic Performance Solutions interviews and analysis.

eab.com

Appendix

Methodology

Methodology

Data Definitions and Standardization

The dataset supporting this toolkit was developed from the APS Collaborative and includes 49 institutions. All analyses were conducted using standardized variables, as described below.

Course Types

Our approach to standardizing course type focuses on three dimensions: the average class size associated with a course type, an estimation of whether the course type designates a need for specialized instructional space, and how students interact during class: practically or theoretically. In the data development phase, we used combinations of course type descriptions, campus codes, and maximum enrollment to standardize data into six distinct course types.

- Discussion/Seminar: Where students prepare and present their original written work for discussion and critique.

- Individual Instruction: Where a student creates or works for themselves within an area of study under direct or indirect faculty supervision. Research is nested within this category.

- Laboratory: Where students engage in practical aspects of a course topic. This includes lecture/laboratory classes (as related to specialized space need) and studio classes (practical interaction with course, specialized space need).

- Lecture: Where the instructor gives lectures with minimal student-teacher interaction.

- Online: Where a course is taught online, either 100% online or as a hybrid format.

- Practicum: Where career- or work-based learning takes place, usually outside of the classroom setting.

Departments

We used a combination of CIP codes and Department names to develop an APS department dictionary. First, we identified the 60 largest 6-digit CIP codes by attempted student credit hour and courses offered. We then transformed these into department-like categories. Lastly, using these categories as our departments, we used the CIP code-level to sort the unclassified courses into the APS departments by best fit.

If CIP codes were not available in the data, any unmatched department names and course codes were matched to already classified courses and then assigned based on a best-fit logic.

Department Code	Course Code	CIP Code	APS Department
BIO – Biological Sciences	BIOL201	**12**	Biology

Key Analytical Concepts

While day-to-day usage of these terms may vary by campus or individual, we use the following terminology to describe the class size data and insights.

- Course: The unique teaching moment where a student registers in and can receive student credits for completing. An example course would include ENG 101 – Composition.

- Section: Within each course – the individually scheduled class where students and an instructor interact. Examples of a section would include ENG 101A, ENG 101B, and ENG 101C.

- Course Enrollment: The number of students enrolled in a section as of an institution's last posted enrollment date.

- Maximum Capacity: The maximum number of students permitted to enroll in a section.

- Median: Indicates the 50th percentile – the point in the middle of an ordered distribution where half of the values in the set fall above and half below.

Source: Academic Performance Solutions data and analysis.

EAB