Matching Section Offerings with Demand

Background

A common challenge institutions face is offering the right number of sections to both efficiently use resources and avoid bottleneck courses that limit student progress. Low-fill sections use instructional resources that could be repurposed to better support the goals of a department. By reducing the number of low-fill sections, department chairs can free up faculty time and classroom space, redirecting those resources to bottleneck courses.

Key Metric Definition

Course and Section Fill Rates:

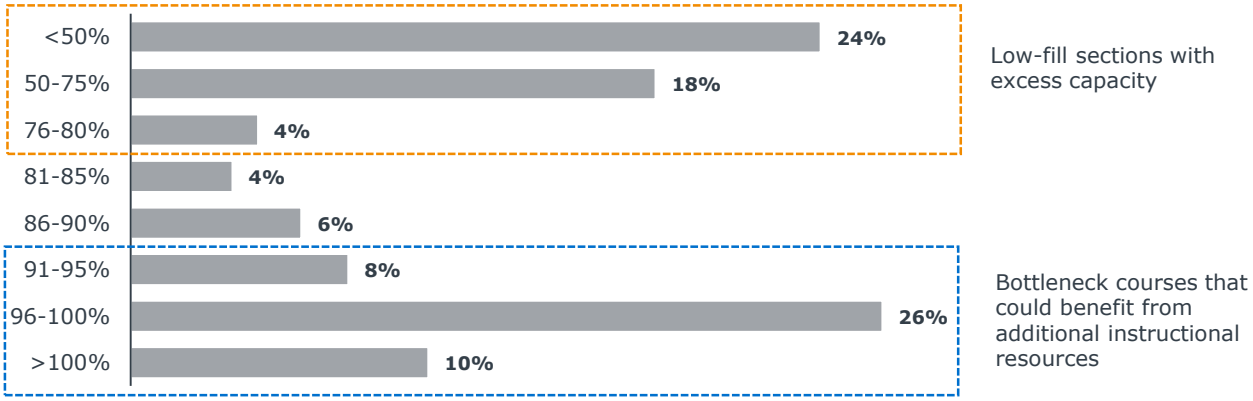
$$\frac{\text{Number of actual students enrolled in a term}}{\text{Maximum capacity in a term}}$$

Fill Rates: What's Normal?

Academic Performance Solutions (APS) recommends a target fill rate of 80 to 90% to ensure that instructional resources are fully used without students struggling to enroll in courses. An analysis of section fill rates across the APS collaborative reveals that only 10% of sections fall within the target fill rate range, whereas 48% of sections are considered underfilled and 44% would be considered bottlenecks.[1]

Percentage Distribution of Sections by Fill Rate (Ranges)

n=191,647 sections



Not all sections outside of the target fill rates can or should be adjusted. Departments should focus on repurposing resources from low-demand courses that are not course or major requirements, and consider if these resources can instead be used in high-demand courses that are required for majors.

Inside this Resource

Learn how APS supports your goals to improve student progress

1) Analysis of the APS Collaborative; Fall 2014 and Spring 2015; Individual Instruction course types were excluded.

Source: Academic Performance Solutions.

How to: Identify Low-Fill Sections and Bottlenecks

Use the steps below to find opportunities in your APS Platform to rightsize your department's section offerings.

1 Getting Started: Set Your Filters

In the **APS Dashboard**, click on the **Courses Tab** and use the filters at the top of the page to refine your analysis.

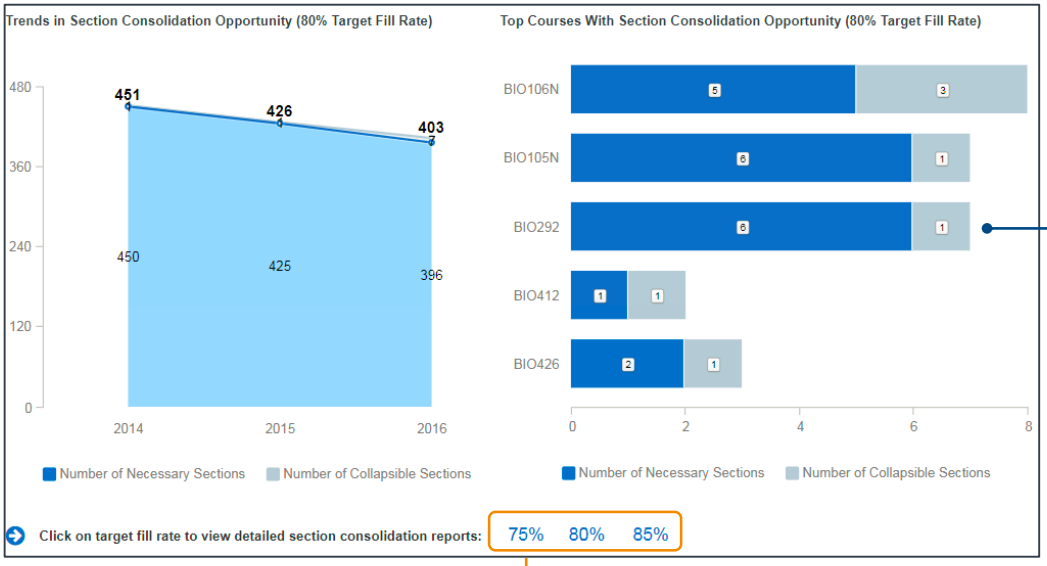
Recommended filters: College Name, Department Name, Course Type, Course Division.

Helpful Hints

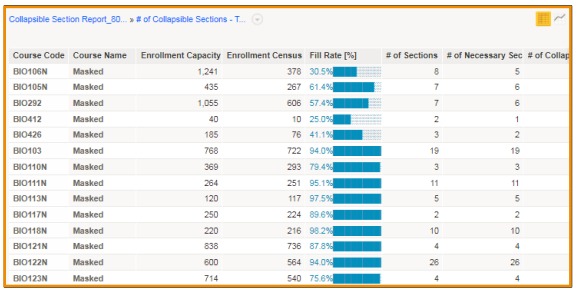
- If you're a Dean, use the **College Name** filter to view departments and courses in your purview.
- If you're a Department Chair, use the **Department Name** filter to view courses in your purview.
- Remove course types, such as *Independent Study*, which may skew the analyses.

2 View the *Top Courses With Section Consolidation Opportunity* Chart

Scroll to the *Section Consolidation Opportunity – Multiple Section Courses* section of the page to identify multi-section courses with low-fill sections that could be consolidated, allowing those dedicated instructional resources to be used elsewhere.



The lighter portion of each bar shows the number of sections that could be collapsed for a course, assuming a target fill rate of 80%. Prioritize courses that are not required by majors and are not pre-requisites for other courses.



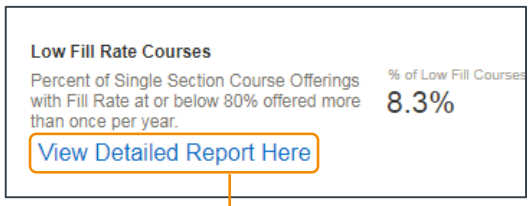
3 Click on 75%, 80%, or 85% Target Fill Rate Report

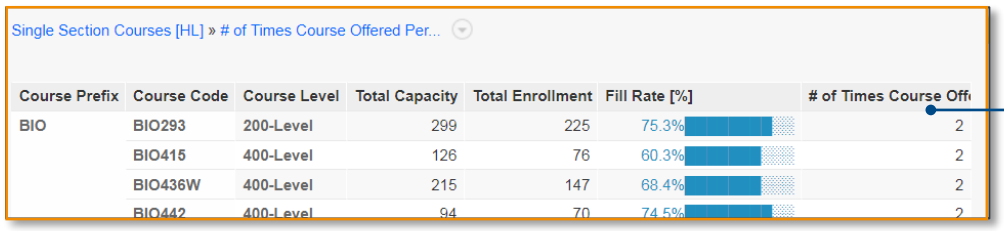
Drill into class size, fill rates, number of sections offered, and number of potentially collapsible sections. Sort by fill rate to see which courses have the largest gap between capacity and actual class size.

Source: Academic Performance Solutions.

4 Open the Detailed Report of Low Fill Rate Courses

Scroll down to view the percentage of single section courses with a fill rate at or below 80% that are offered more than once a year.

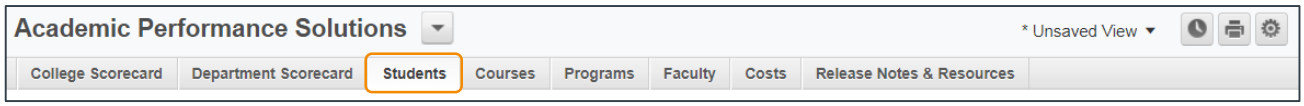




Consider if there are opportunities to offer the course annually, instead of once per term.

5 Click on the Students Tab

Scroll to the top of the page to select the **Students Tab**. Use analyses on this page to identify courses with high fill rates. Your filters will be carried over from the previous tab.



6 View the *Impact of Course Bottlenecks on Course Completion (Fill Rate >= 90%)* Table

Scroll to the *Course Bottlenecks* section to identify courses with fill rates at or greater than 90%.

Impact of Course Bottlenecks on Course Completion (Fill Rate >= 90%)

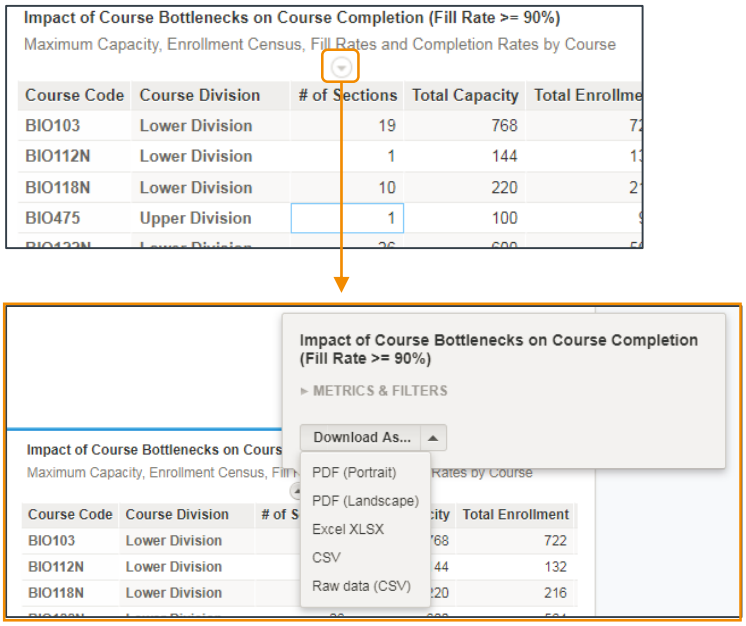
Maximum Capacity, Enrollment Census, Fill Rates and Completion Rates by Course

Course Code	Course Division	# of Sections	Total Capacity	Total Enrollment
BIO103	Lower Division	19	768	722
BIO112N	Lower Division	1	144	132
BIO118N	Lower Division	10	220	216
BIO122N	Lower Division	26	600	564
BIO111N	Lower Division	11	264	251
BIO113N	Lower Division	5	120	117
BIO124N	Lower Division	18	432	390
BIO139N	Lower Division	1	20	19

Source: Academic Performance Solutions.

7 Optional: Download and Share the Data

Hover over the chart and an arrow will appear. Click on the arrow to open a drop-down menu with the option to download and save the data in PDF, Excel, or CSV format.



Helpful Hints

Prioritize providing reallocated resources to bottleneck courses that are:

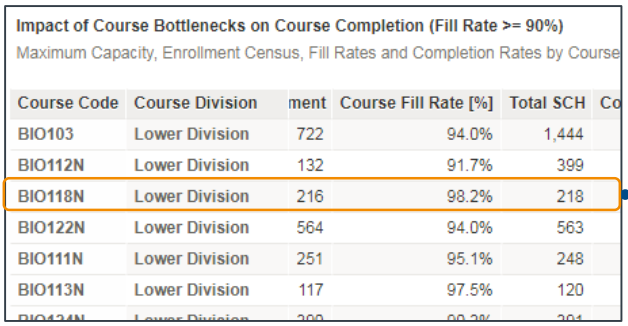
- Gateway courses
- Requisites for majors
- Pre-requisites for other courses

Consider the following when reallocating resources:

- *Faculty expertise:* Is the low-fill section faculty member qualified to teach the targeted bottleneck course?
- *Classroom space:* Can the low-fill section classroom be used for the targeted bottleneck course section? For example, a lab cannot be taught in a lecture space.

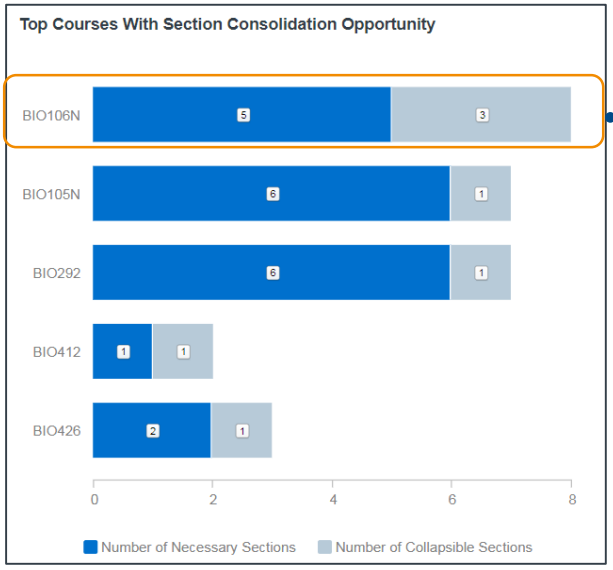
8 Compare Bottlenecks and Collapsible Sections

Use the reports in Steps 2 and 6 to determine if excess capacity can be reallocated to bottleneck courses.



Bottleneck Course

Example: BIO118N is required for majors and has a 98.2% fill rate, making it difficult for students to enroll.



Low-Fill Multi-Section Course

Example: BIO106N has three potential sections that could be collapsed.

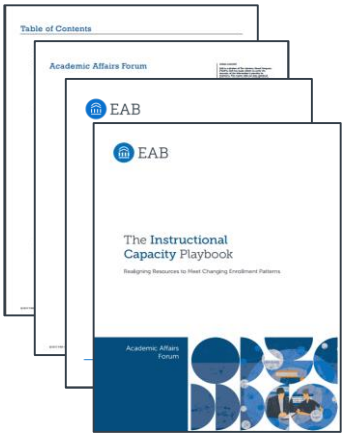
- Are the faculty whom teach this course qualified to teach BIO118N?
- Can the classroom space be re-purposed for BIO118N?

Source: Academic Performance Solutions.

Best Practice Resources for Rightsizing Sections

Resource Available on EAB.com

Toolkit: The Instructional Capacity Playbook



Repurposing instructional resources from low-fill sections to alleviate bottleneck courses may not always be a viable option due to the mismatch of faculty expertise and classroom space. Research from the Academic Affairs Forum identifies two other promising practices to increase capacity in high-demand areas, which include:

- *Faculty Line Assignment:* Reassessing the necessity of a faculty line once a faculty member retires and determining the best use of the salary.
- *Overflow Capacity for Bottleneck Courses:* Creating capacity for high-demand courses during the summer or winter sessions, online, or in an accelerated, late-start format.

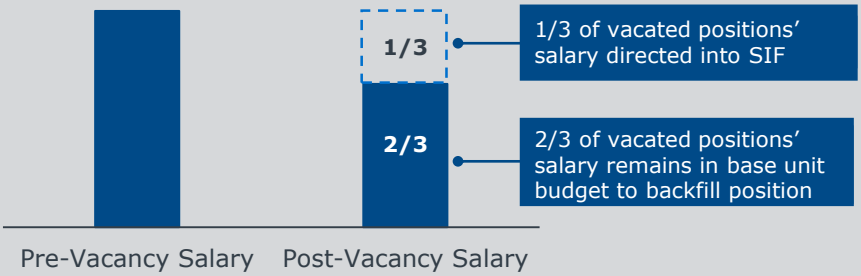
In addition to these two practices, *The Instructional Capacity Playbook* details other best practice strategies for realigning resources to meet changing enrollment patterns across colleges and universities.

Download here.

Case in Brief: Faculty Line Reassignment at Indiana University
From *The Instructional Capacity Playbook*

Indiana University offered an Early Retirement Incentive Plan (ERIP) to faculty and staff in 2013. For each retired faculty member, two-thirds of their salary was allocated to backfilling the role or to another department in the college. One-third of the salary was funneled into the Strategic Investment Fund (SIF), which is used for enrollment needs.

Budgeted Salary for Position of Retiring Faculty Member



Instead of reallocating the entire line to the department of the retired faculty member, only two-thirds is reallocated to a permanent line. The remaining one-third is used for other institutional priorities.

Source: The Instructional Capacity Playbook, Academic Affairs Forum.

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