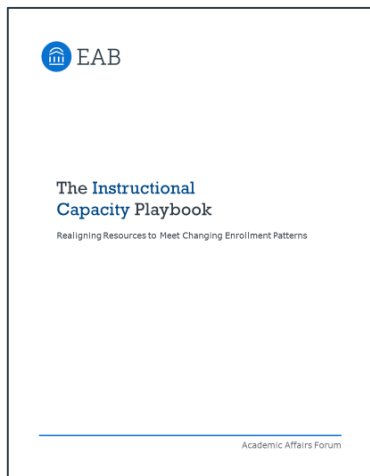


# The Instructional Capacity Playbook

Realigning Resources to Meet Changing Enrollment Patterns

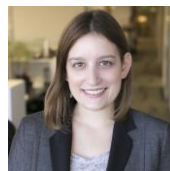
# EAB Contact Information

## Academic Affairs Forum



### **The Instructional Capacity Playbook**

*Realigning Resources to Meet Changing Enrollment Patterns*



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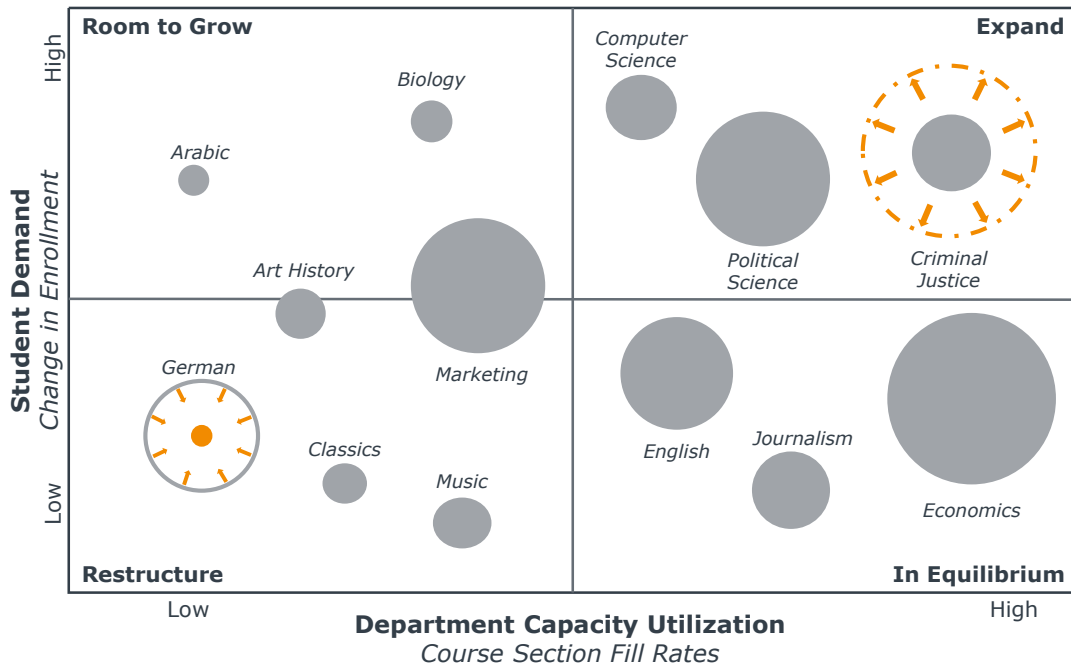
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Better Balance Faculty Workloads

# A State of Flux

## New Challenges in an Era of Volatile Enrollments

### Identifying Enrollment Demand-Capacity Mismatches



# Uncertainty Raises Tensions on Campus

## Institutions Can No Longer Plan Around Sustained Annual Growth

### Negative Impacts of Uneven Growth



#### Faculty

- Larger classes
- More adjuncts
- Unequal workloads
- Rising pressure to improve output
- Unwanted competition among high- and low-growth units

*Faculty are working harder and fear that quality is declining*



#### Students

- Harder to get the right classes at the right times
- Popular majors increasingly difficult to enter
- Complex requirements and options hard to navigate

*Students are paying more but struggling to graduate in their desired major*



#### Institutions

- Unable to keep up with areas of high demand
- Rising cost per student due to underutilized capacity
- Resentment of administrators struggling to manage tight resources

*Universities are turning away students but struggling to cover rising costs*



# New Metrics to Measure Instructional Capacity

## From Untested Assumptions to Actionable Analyses

Old Metric	Untested Assumption	New Analysis
Student-Faculty Ratio	A lower ratio suggests higher quality; the average number of students per faculty reflects the typical student experience	<b>Student credit hours per instructor (by rank) at department level</b>
Standard Course Load	Number of courses is a better measure of workload than the size of courses; most faculty teach the standard load	<b>Percentage of students in each class size</b>
Standard Workload	All faculty should strive for the same balance of teaching, research, and service; all faculty work should be counted equally for promotion and tenure	<b>Total faculty contributions</b>
Average Class Size	Smaller classes have better learning outcomes; most students are in average-size classes	<b>Class size distribution</b>
Maximum Section Size	Maximum section size is based on pedagogical necessity	<b>Section fill rate analysis</b>



# New Metrics to Measure Instructional Capacity

## From Untested Assumptions to Actionable Analyses

Old Metric	Untested Assumption	New Analysis
Minimum Credits Required for Degree	Most students will complete the degree with minimum credits	<b>Curricular complexity</b>
Previous Term Course Enrollment	Enrollments do not change significantly from like term to like term	<b>Registration trend analysis</b> <b>Cross credit matrix/ major migration</b>
Classroom Utilization (hours per week)	There aren't enough rooms for all courses	<b>Room type bottlenecks (by size, technology, location)</b>
Major/Degree Production (by program or department)	The primary purpose of every department is to produce graduates of its major	<b>SCH production (for majors, non-majors, gen ed courses) by course and by level; "native junior" graduation rate<sup>1</sup></b>

1) i.e. graduation rate of students who started in the major after they have reached junior status, three years, or 60 SCH. Measuring graduation rate at this point reduces the influence of general education and service courses on results.

# Enhancing Student Learning in Large Courses

## Introducing the Course Completion Playbook



## Reducing DFW Rates While Preserving Learning Outcomes and Academic Rigor

**A+**  
Assessment

  
Instruction

  
Course-Level Advising

  
Pre- and Post-Course Support



**The Course Completion Playbook**

Available on [eab.com](http://eab.com)



**Improving Student Outcomes in Critical Gateway Courses**

Tuesday, October 10 1-2 PM ET

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# Track and Predict Changing Student Demand



## INSTITUTIONAL CHALLENGE

**Rolling over the schedule** no longer produces an accurate picture of demand in an increasingly volatile enrollment environment.



## STRATEGY

**Predict demand accurately and early** to reduce mismatches between course offerings and enrollment.



## PROMISING PRACTICES

### Curricular Interdependency

Analyze the number of majors vs. service enrollments

### Predicted Course Demand

Use interdependency, admissions data, and projected and current enrollment by major to predict

### Multi-term Registration

Allow students to register for courses a full year in advance

### Central Course Wait Lists

Allow an unlimited number of students to wait list themselves for each course

# Predicted Course Demand

Combine Historical Data with Enrollment Trends to Predict Course Fill Rates

## Predicting Course Enrollment by Major

*How many seats will we need for second-year majors next year?*



Number of  
second-year  
majors currently  
enrolled in course



Total number of  
second-year  
majors



Number of  
current first-  
year majors



Percentage of  
first-years who  
remained in the  
major this year



Percentage of second-  
year majors this year  
who "migrated" from  
another department

**99%** Accuracy of course  
demand prediction

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# Increase Capacity in High-Demand Areas



## INSTITUTIONAL CHALLENGE

**Departmental resources have not kept up with enrollment** increases in high-demand programs.



## STRATEGY

**Reassign resources to areas of greatest demand** where possible, and create overflow capacity where constraints persist.



## PROMISING PRACTICES

### Enrollment Growth Funding

Assign funding and faculty lines to units based on course-level enrollment

### Overflow Course Capacity

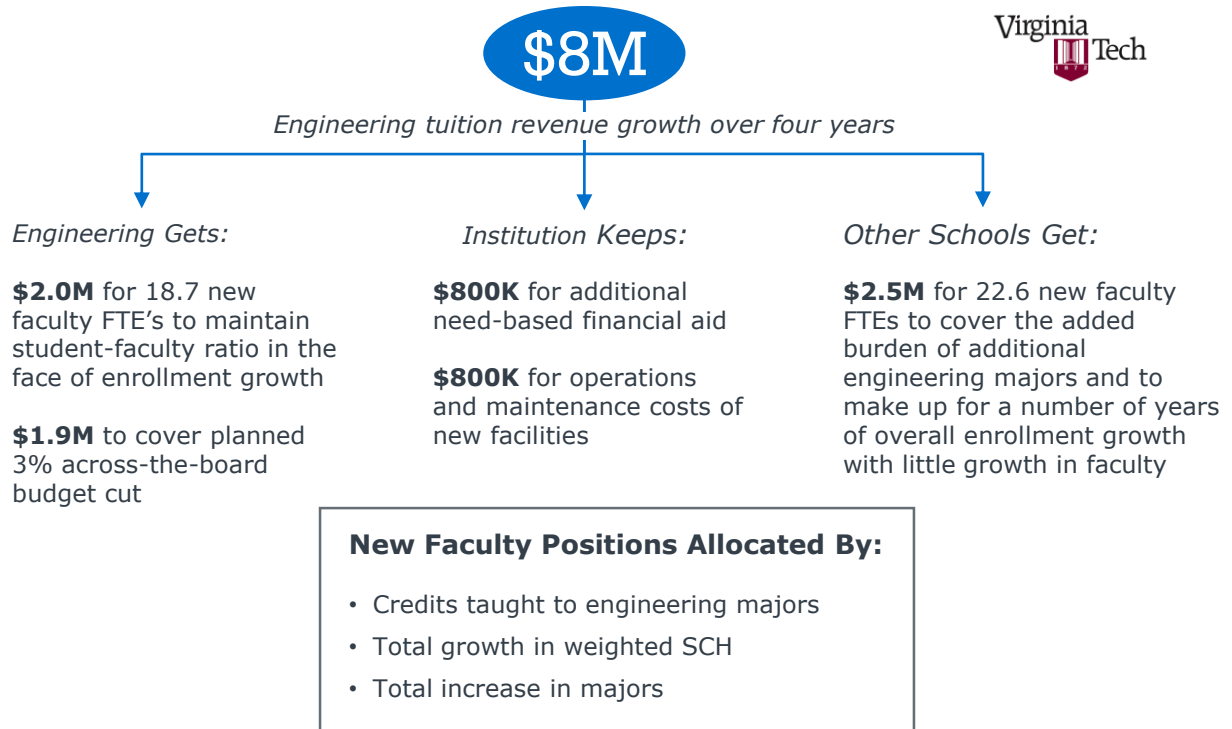
Create capacity for high-demand courses with summer/winter, accelerated, and online options

### Faculty Line Reassignment

After faculty retirement, reallocate portion of salary not used for new hire to a central strategic fund

# Enrollment Growth Funding

In Times of Growth, Make Central Investments in Quality



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# Reallocate Underutilized Capacity



## INSTITUTIONAL CHALLENGE

**A proliferation of small and under-filled courses** increases teaching demands on faculty without a proportional increase in SCH production.



## STRATEGY

**Consolidate small and underutilized course sections** while preserving student access to instruction.



## PROMISING PRACTICES

### Section Consolidation

Analyze total enrollments across all sections of each course to determine whether fewer sections could accommodate all demand

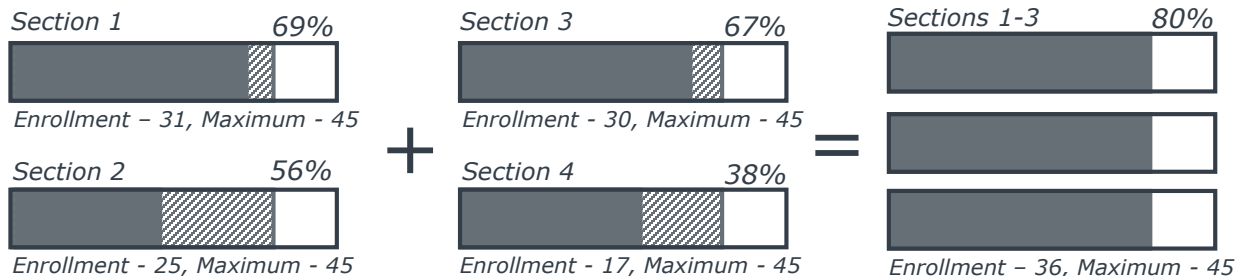
### Small Course Consolidation

Target very small courses such as independent study, research, or internships for consolidation to improve capacity and provide peer discussion opportunities

# Section Consolidation

## Significant Gains from Combining Sections Within a Single Course

### Lower-Division Anthropology Course



### Collapsing Sections

Assuming Optimal Fill Rate of 80%

**289**

Collapsible sections<sup>1</sup>  
(entire university)

**25%**

Sections taught by adjuncts

**200**

Adjunct credit hour savings

**\$330K**

Savings from adjuncts

**75%**

Sections taught by full-time faculty

**875**

Full-time faculty credit hour savings

**\$1.5M**

Instructional costs reallocated

1) For analyses, all courses with a maximum enrollment of zero are excluded.

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# Reduce Curricular Bottlenecks



## INSTITUTIONAL CHALLENGE

### **Complex prerequisite pathways and non-degree-granting tracks**

lead to under- and overenrolled courses and excess credits, while reducing options for students.



## STRATEGY

**Diagnose areas of curricular over-complexity** to simplify rigid prerequisite pathways and sub-degree tracks.



## PROMISING PRACTICES

### **Section Consolidation**

Reduce or eliminate curricular “tracks” that are not degree granting, cancelling low-enrollment courses while allowing higher-enrollment courses to fulfill elective requirements

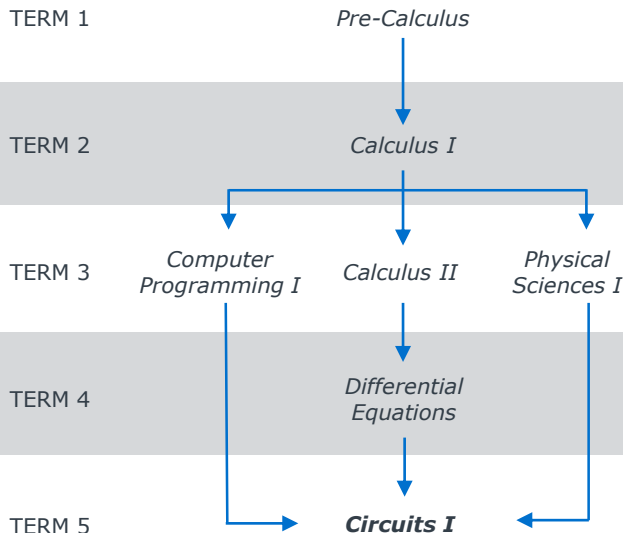
### **Small Course Consolidation**

Analyze degree plans to determine identify complex pathways or those that rely too heavily on one prerequisite; one strategy is to add a program-specific introductory course

# Streamlined Prerequisite Pathways

## Leveraging Curricular Bottleneck Analysis to Reduce Complexity

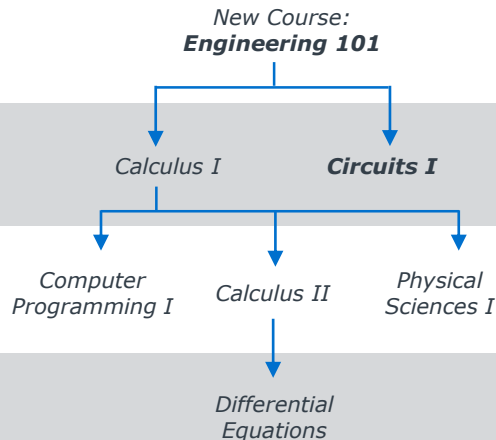
### Before Streamlining



**7** Total prerequisites for Circuits I

**5** Terms until first major course

### After Streamlining



**1** Total prerequisite for Circuits I

**1** Term until first major course

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# Better Balance Faculty Workloads



## INSTITUTIONAL CHALLENGE

Changes in student demand, as well as growing research and service requirements, result in **unbalanced faculty workloads**.



## STRATEGY

**Increase transparency, flexibility, and unit accountability** to support departments in developing more balanced workload allocations.



## PROMISING PRACTICES

### Departmental Teaching Calculation

Track credit-hour production and funded releases by department in a dashboard that allows deans to compare units side by side

### Faculty Activity Dashboard

Track faculty activities that are not part of the standard workload for tenure and promotion (e.g. editing journals, advising students)

### Differentiated Instructional Roles

For units with additional teaching needs, create full-time, non-tenure-track roles for instructors

# Departmental Teaching Calculation

## Benchmark Course Offerings to Standard Workload, Less Releases

	Dept. A	Dept. B	Dept. C	Dept. D	Dept. E
Tenured/Tenure-Track FTE					
x Standard Course Load					
- Approved Course Releases					
<b>= Theoretical Capacity</b>					
# of Courses Taught					
Courses per FTE					
SCH per FTE					
Adjunct Share of SCH					

# EAB Support in Academic Resource Allocation

## Additional Resources Within and Beyond the Academic Affairs Forum



### Breaking the Trade-Off Between Cost and Quality

*Sustaining Mission in an Era of  
Constrained Resources*



### Smart Growth

*Running the Academy  
by the Numbers*

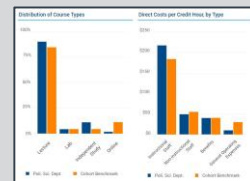


### Optimizing Institutional Budget Models

*Strategic Lessons for Aligning  
Incentives and Improving  
Financial Performance*

### Revitalizing the Program Portfolio

*Elevating Academic  
Program Performance  
and Strategic Alignment*

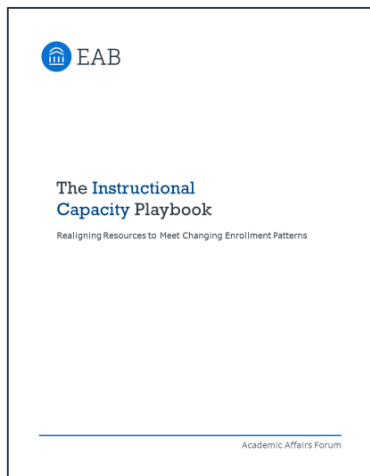


### Academic Performance Solutions (APS)

APS' new web platform provides high-level key performance indicators as well as snapshot analyses of program performance and costs across colleges, departments, instructors, and courses.

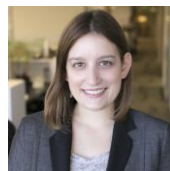
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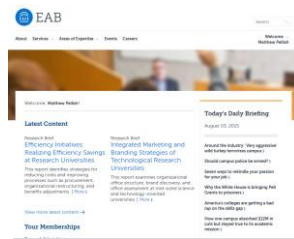
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