



## Metrics for reviewing efficiencies in an era of reduced budgets

December 2015

### INTRODUCTION

The Education Advisory Board (EAB), established in 2007, is a private research organization that provides research and advice to more than a thousand colleges and universities around the world. In its report, **“Breaking the Trade-off between Cost and Quality: Sustaining Mission in an Era of Constrained Resources,”** the EAB examined five primary drivers of academic costs and capacity: section fill rates, course enrollment, course completion rates, curricular complexity, and faculty course loads. These areas, according to EAB offer the greatest opportunities to realign academic resources while maintaining or enhancing quality. EAB analyzed five metrics from six public comprehensive master’s universities to present a framework from which other institutions might use such data to target opportunities for “realigning costs in ways that can avoid the negative impact of across-the-board budget cuts or the elimination of entire academic programs.”

UAA’s Office of Institutional Research has compiled data from operational Banner RPTP tables on three of the five metrics examined by EAB: *section fill rates*, *course enrollment size*, and *faculty course load*. This report presents each EAB metric page side-by-side with a page providing the corresponding data for UAA. This comparison is not intended as a benchmark but to provide context for understanding and exploring opportunities for efficiencies at UAA.

The following report illustrates the types of data that the UAA IR office has made available on its SharePoint website that can be used to inform decision-making at an individual college and/or discipline level.

## Section Fill Rates

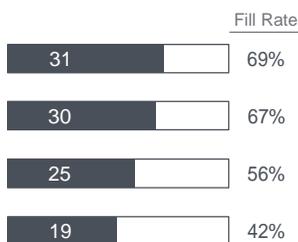
Student enrollment in course sections averages about 60% of maximum capacity at most institutions, with as many as 20% of all sections less than half full (at the same time that many are over-capacity).

In particular, universities commonly offer more sections of multi-section courses than are necessary to meet student demand. In some cases, up to 30% of all sections offered could be consolidated (in theory) while still accommodating all student demand and not increasing existing course caps.

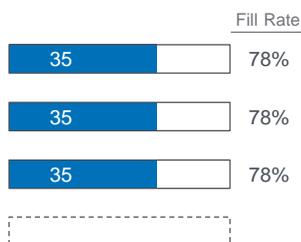
### Consolidating Excess Course Sections

Anthropology 101 at a Public Master's University

Excess Course Capacity  
*Max Enrollment=45,*  
*Seat Utilization=56%*



Consolidated Sections  
*Max Enrollment=45,*  
*Seat Utilization=78%*



Excess Institutional Capacity



Offering sections at a wide range of times is important to ensure that students have access to required courses, but in many cases the number of sections could still be reduced substantially (for example, by 10% or 20%) without significantly inconveniencing students. Cancelling these sections could reduce adjunct costs, or it could free up faculty time to support bottleneck courses or spend more time on research.

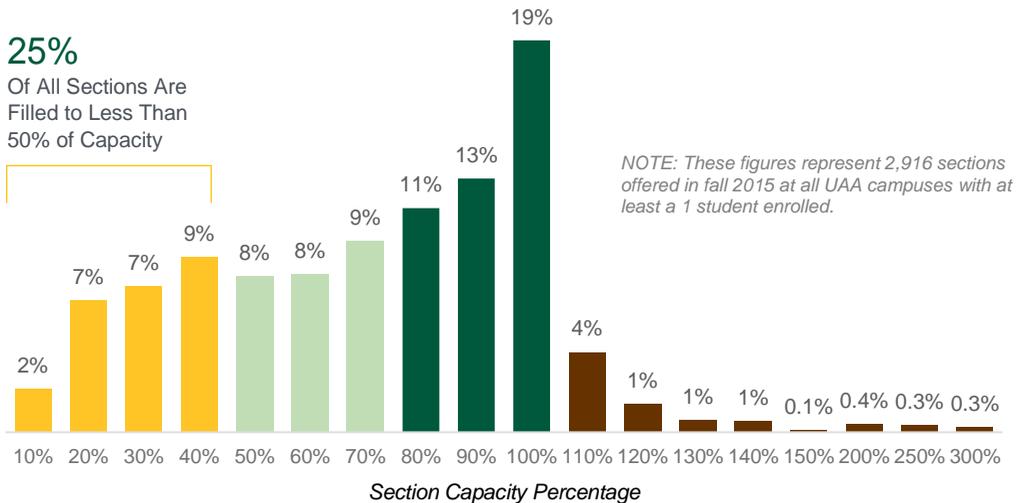
Source: EAB analysis of institutional data.

EAB—*Breaking the Trade-Off Between Cost and Quality*

# University of Alaska Anchorage

## Section Fill Rates

Student enrollment in course sections at UAA averages nearly 72% of the maximum capacity, while the six universities reviewed by EAB report an average of 60% of maximum capacity. Of all course sections at UAA, only 25% are less than half full, 32% are 90-100% capacity and 7% are over capacity. This indicates that UAA has room for additional efficiencies, though the decision as to whether these are adequate efficiency levels must be made on a micro level.



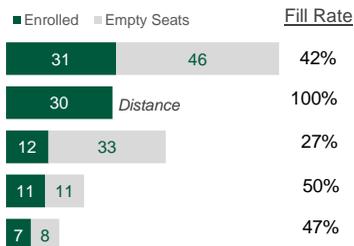
### Consolidating Excess Course Sections

As EAB points out, offering sections at a variety of times and locations can be important to providing access to the courses for students. In this example, the section fill rate was less than 50% in fall 2015. Two levels of consolidation are provided, with one improving the fill rate to 78% and the other to 85%.

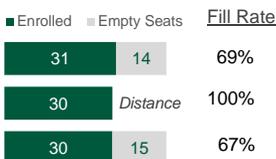
#### Sample UAA course, fall 2015, Anchorage campus

This is an example of how course section consolidation can improve fill rates and efficiencies.

Excess Course Capacity  
Max Enrollment=15-77,  
Seat Utilization=48%

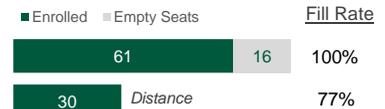


Consolidated Sections  
Max Enrollment=45,  
Seat Utilization=78%



Reduced course cap to 45 in one section, and combined three traditional sections into another 45-cap, and kept distance at 30, increasing efficiency from 48% to 78%.

Consolidated Sections  
Max Enrollment=77  
Seat Utilization=85%



Combined enrollment from 3 traditional classes into the section with a 77-maximum enrollment to eliminate 3 sections. This option offered an 8 point gain over the second option.

SOURCE: IR SHAREPOINT site, EAB Curricular Efficiency Reports>Operational-Course Fill Rates with filters, Period Fall 2015; Unit UAA, Course levels all; Minimum Capacity 1; Minimum Enrollment 1; Minimum Sections 1; Section Status Active & Full.

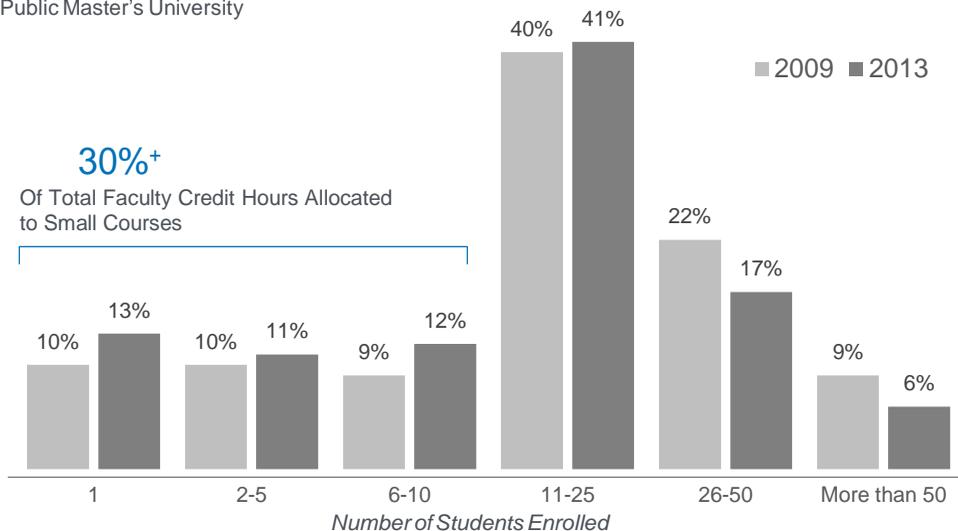
NOTE: This is operational data so some changes may have occurred since the data was pulled for this report.

## Course Enrollment

Offering small undergraduate courses (< 10 students) is critical to support specific pedagogical approaches or to offer specialized niche courses with low demand, but institutions often find that the number of these small courses has increased dramatically (sometimes making up as many as 30% of all courses offered) with little analysis of the necessity of each of these courses.

### Small Courses Drive a Large and Growing Share of Costs

Public Master's University



### Trending Toward Smaller Courses at Greater Cost

36%

Of faculty credit hours are spent on courses with ten or fewer students

7%

Percentage-point increase in share of faculty credit hours on small sections

\$11M

Approximate instructional cost of all small courses

Reducing the number of small courses that lack a valid justification can free up instructional time for higher priority activities. The goal is not to eliminate all small courses, or necessarily to increase average course size significantly, but rather to limit their frequency or to identify courses that have no pedagogical necessity to be small.

Source: EAB analysis of institutional data

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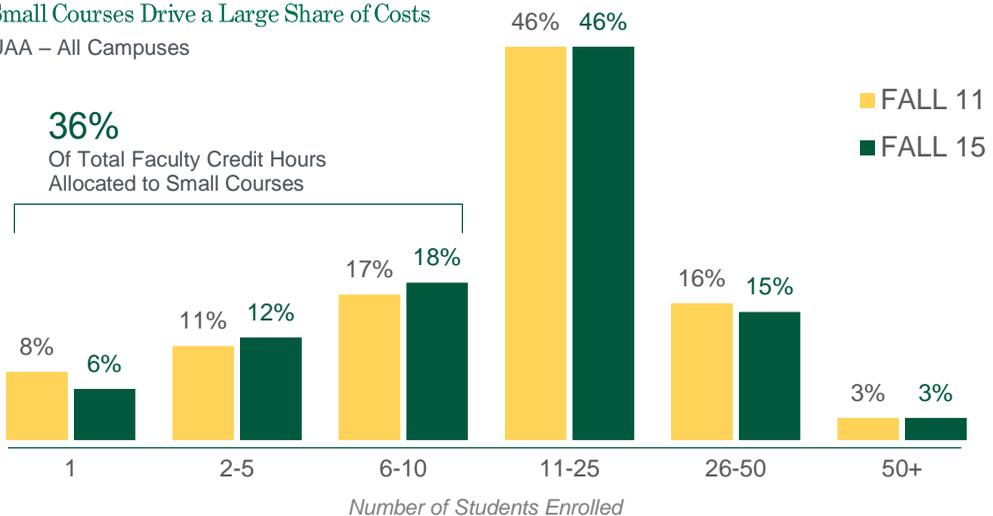
# University of Alaska Anchorage

## Course Enrollment

The number of small (<10) of undergraduate (100-400 level courses) at UAA make up 36% of all courses offered.

### Small Courses Drive a Large Share of Costs

UAA – All Campuses



### Percentage of Courses with 10 or Fewer Students by Campus:

- Anchorage Campus – 36%
- Kodiak College – 36%
- Prince William Sound College – 71%
- Kenai Peninsula College – 36%
- Mat-Su College – 31%

Unlike the EAB example on this metric, the number of small courses taught at UAA has not increased over the last five academic years. The table below shows the changes from 2011 to 2015 in course section enrollment.

Enrollment Range	Section Enrollment		% Change
	FALL 11	FALL 15	
1	226	158	-30%
2-5	318	310	-3%
6-10	484	460	-5%
11-25	1,319	1,212	-8%
26 - 50	450	390	-13%
more than 50	90	89	-1%
<b>Total</b>	<b>2,887</b>	<b>2,619</b>	<b>-9%</b>

SOURCE: IR SHAREPOINT site, EAB Curricular Efficiency Reports>Operational-Course Section Enrollment with filters: Period type Fall Semester; Classes During Fall 2015 and Fall 2011; Unit UAA; Course levels 100-400 levels.

NOTE: This is operational data so some changes may have occurred since the data was pulled for this report.

## Faculty Course Load

A university's faculty is its greatest asset—and also one of its largest investments. Yet how the members of the faculty allocate their time is only loosely managed and rarely tracked in detail. This is not typically an issue of lazy faculty. Time diary studies show faculty working increasingly long hours (even as many faculty salaries have struggled to keep up with inflation). The broader issue is whether faculty effort is aligned with institutional goals.

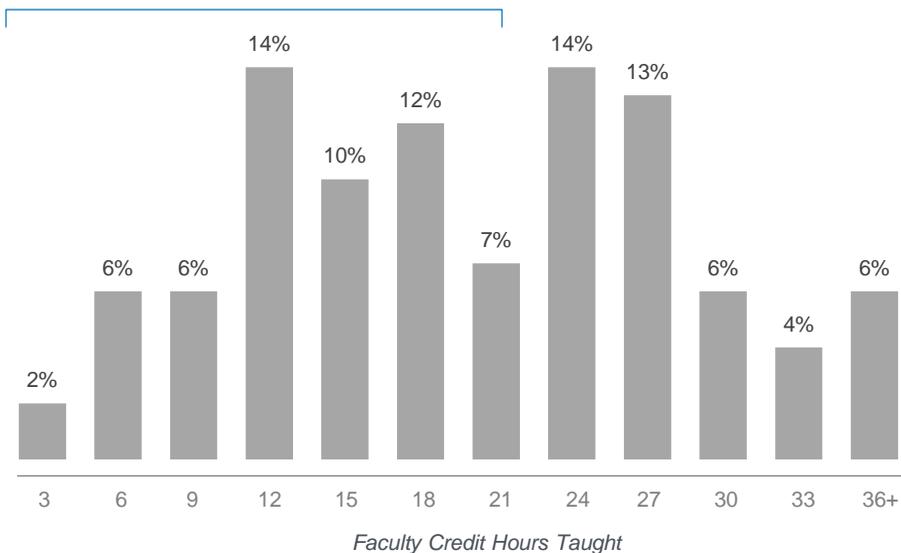
For example, at many institutions the majority of faculty are teaching less than the standard course load (however that load is defined). There are many valid reasons why faculty might teach less than the standard load. They may be serving as department chair, program lead, or some other service role, or they may have received a course release to pursue their research. Rarely, however, do institutions consider the cost of these releases (in terms of lost instructional capacity) or measure their benefits (in terms of research output, for example).

### Assessing Faculty Course Loads

Distribution of Faculty by Credit Hours Taught, Public Master's University

**58%**

Of Faculty Teaching Less Than 24 Credits  
(Standard Load)



Source: EAB analysis of institutional data.

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# University of Alaska Anchorage

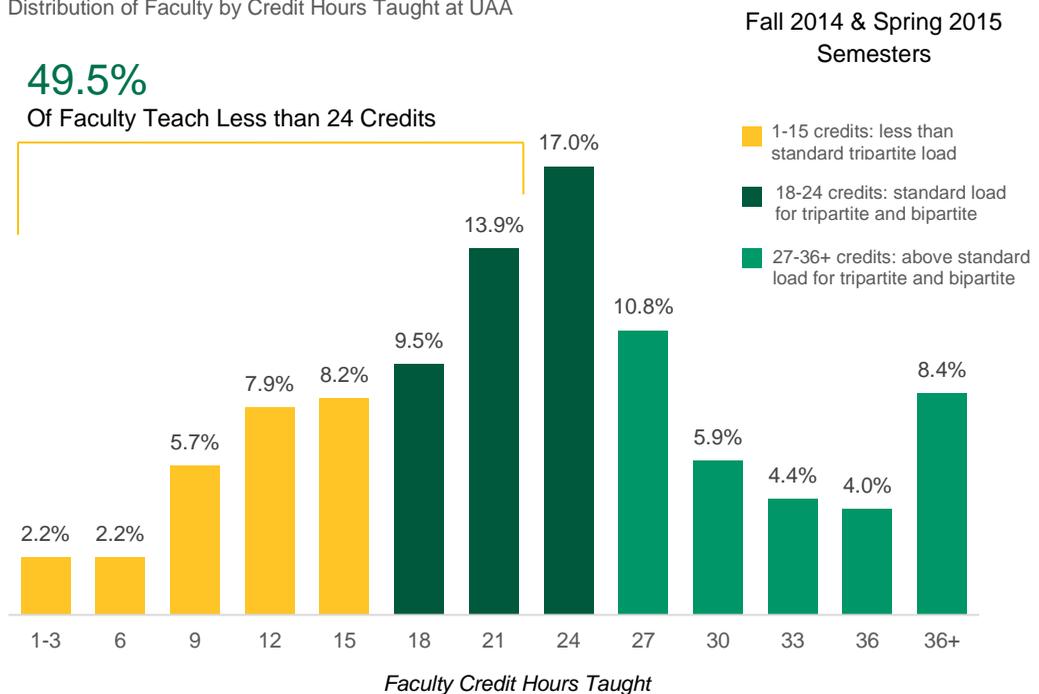
## Faculty Course Load

The standard instructional workload for bipartite faculty is 24 credits per academic year and 18 credits for tripartite faculty. EAB's data show 58% of the faculty at the six public master's universities they analyzed teach fewer than 24 credits. Only 49.5% of UAA's 547 faculty in this metric fell into that range in the combined fall 2014 and spring 2015 semesters.

- 26.2% of faculty teach 15 or fewer credits
- 40.4% of faculty teach 18-24 credits
- 33.5% of faculty teach 25 or more credits

### Assessing Faculty Course Loads

Distribution of Faculty by Credit Hours Taught at UAA



*NOTE: This chart excludes the 58 faculty who had a zero course load in fall 2014 and spring 2015. Faculty in this group include administrators (e.g. center directors, associate deans), librarians and some counsellors.*

SOURCE: IR SHAREPOINT site, EAB Curricular Efficiency Reports>Operational-Faculty Course Load with filters, Employees During Fall 2014 & Spring 2015, Employment Status Active; Unit UAA; Course Section Status Active, Full.

*NOTE: This is operational data so some changes may have occurred since the data was pulled for this report. In addition, as noted above, zero course loads were excluded when creating the chart above.*

# Data Informed Decisions

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UAA's Office of Institutional Research continues to develop a SharePoint site to provide up-to-date, searchable, official and operational information to the UAA community. By using software already owned by UAA and data from the UA data warehouse, IR was able to develop the site with minimal investment and saved the university \$125,000 in new software plus annual licensing fees.

Deans, directors, and other decision makers are encouraged to access the information included in this report for specific colleges and campuses through the SharePoint site. To do so, follow these simple steps:

- Log onto the link below using your UAA username and password. (Link: <http://irsql01.uaa.alaska.edu/Reports/Pages/Folder.aspx?ItemPath=%2fEAB+Curricular+Efficiency+Reports&ViewMode=Detail>)
- Open one of the reports listed below
  - Operational – Course Fill Rates
  - Operational – Course Section Enrollment
  - Operational – Faculty Course Load
- Review and set parameters.

Contact Brian Brubaker (786-4875) or Erin Holmes (786-1544) with questions or comments.

This report produced by



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Office of Institutional Effectiveness, Engagement & Academic Support