

The Space Bottleneck Overview

The State of the Art in higher Education space management and scheduling has done little to solve real space problems. Good reporting can measure average utilization during a scheduling week. Good scheduling software can allocate rooms efficiently. Neither solves the core space problem that prevents growth. We call this problem a space bottleneck. The following simple table illustrates the distinction between a space utilization and space bottleneck orientation.

Room	Campus "A" Utilization	Campus "B" Utilization
Classroom 1	50%	50%
Classroom 2	50%	50%
Lab 1	50%	100%
Lab 2	50%	0%
Average Utilization	50%	50%

Both campuses in the above table have an average room utilization of 50%, however, only campus "A" can grow enrollments (assuming the existing mix of activities is maintained). A space bottleneck is a popular type of room that is completely booked during popular times. Usually, a bottleneck is confined to 1-2 room "types" during 10-15 hours per week. There is only one way to relieve the bottleneck and allow your institution to grow without construction or significant renovation. Here are the steps:

- Identify your bottleneck room "type(s)"
- Identify your prime (bottleneck) times for the bottleneck room "type(s)"
- Develop a strategy to relieve the bottleneck

The power of this approach - beyond its advantages over the current State of the Art - is that few changes are needed to accommodate significant enrollment growth. For example, consider an institution that has 100 rooms - 10 of which are bottleneck rooms. Those rooms are booked solid from 9-12 M-F by 50 activities. To accommodate 10% enrollment growth, an institution would need to convert 1 existing room into a bottleneck room "type," or move 5 of the 50 activities to another time slot or room "type." We have learned how to use Astra Schedule and its bundled reports to help institutions to solve problems like this.