

# **University Classroom Committee Report To the Provost**

**2011 – 2012**

## **Committee members**

Martina Bode, *Department of Mathematics, WCAS*

Ronald R. Braeutigam, *Office of the Provost*

Stephen H. Carr, *Office of the Dean, McCormick School of Engineering*

Susanna Calkins, *Searle Center for Teaching Excellence*

Gabrielle Daniels, *Associated Student Government*

Leigh Ann Drevs, *Office of the Registrar*

Kendra Foss, *Office of the Registrar*

Melissa A. Macauley, *Department of History, WCAS*

Rick G. Morris, *Office of the Dean, School of Communication*

Ronald Naylor, *Facilities Management (co-chair)*

Marianne Ryan, *University Library*

Jean E. Shedd, *Office of the Provost (co-chair)*

Robert L. Taylor, *Academic and Research Technologies, Information Technology*

Joel Trammell, *Office of the Dean, Weinberg College of Arts & Sciences*

Paul B. Weller, *Planning, Facilities Management*

Ken Woo, *School of Continuing Studies*

**November 2012**

**UNIVERSITY CLASSROOM COMMITTEE**  
**REPORT**  
**2011 – 2012**  
**Executive Summary**

- In FY2012, the Classroom Committee allocated \$684,500 for various physical and technological upgrades to classrooms.
- The Classroom Committee was restructured and redefined this year in light of changes to University IT governance. The Teaching Methodology/Technology subcommittee of the Classroom Committee has been subsumed by the newly created Educational Technology Advisory Committee (ETAC), chaired by Ron Braeutigam, Associate Provost for Undergraduate Education; the Classroom Quality subcommittee has a new chair (Joel Trammell, Associate Dean of Facilities and Planning, WCAS, succeeding Ron Braeutigam in this role).
- The Undergraduate Budget Priorities Committee requested funding for FY2012 for a pilot project to install wireless access points in large general purpose classrooms. Central funding was allocated to this project, which was completed in summer 2012.
- In the last academic year, the Office of the Registrar has implemented the online scheduling and classroom reservation system 25Live, which is available to all departments and schools as the Room and Event System (RES). An accompanying reporting system, X25, has also been implemented and is approaching full functionality.
- Kresge's renovation has been deferred a year and is currently anticipated to start in summer 2014. The most pressing issue remains the availability of "swing-space" classrooms for the interim loss of Kresge's classrooms and seminar rooms. The Classroom Committee and the Office of the Registrar are exploring improvements in scheduling and possible alternative classroom options.

## **Use of the FY2012 Budget Allocation**

The Classroom Committee receives an annual budget allocation of \$500,000 to support improvement to the physical condition of the University's general-purpose classrooms, scheduled by the Office of the Registrar. Savings from FY2009-FY2011 increased the funds available in FY2012 to over \$700,000.

In addition to approving several projects to replace/upgrade furniture and carpet, and providing the facilities portion of AV improvements, this year the Classroom Committee also approved improvements in University Library seminar room 3322, in order to increase the utilization of the Library seminar rooms.

In FY2012, \$684,500 was allocated for the following projects, of which \$523,800 has been spent:

1. Swift 107: replace seating, provide facilities work to support smart technology upgrades and provide power outlets for 25% of seats in the room (28 seats).
2. Tech LR2: replace pedestal seating with post and beam seating (heavier duty product).
3. Tech LR4 & LR5: replaced furniture, relocated/replaced the screen, and rotated the existing projector in each room so that more of the chalkboard is usable during classes. In Tech LR5 power outlets were added to 50% of seats so now every seat in Tech LR5 has a power outlet.
4. Pancoe Auditorium: reupholstered the existing chairs with remaining purple fabric from Leverone Aud. and Tech Ryan Aud. Also provided new matching seating on the back wall to replace a mis-matched row of chairs that had found its way into the room over the years.
5. Lunt 101, 102, 103: provided quiet mini-split system air conditioning, completed June, 2012.
6. Fisk 217: Spring break, power, data and raceways were added to support the installation of new technology. Summer, 2012: provided electrical outlets for 25% of seats (82) in the auditorium.
7. Tech Ryan Auditorium: power, data, raceways to support new AV equipment.
8. Provided (14) document cameras for Registrar classrooms. This covers all classrooms in University Hall (6) and Parkes (5), plus 3 spares for Academic & Research Technologies to be able to replace broken doc cams immediately.
9. Replaced carpet or, replaced all stained carpet tile and rework existing to look new in all Registrar Classrooms at the University Library, Annenberg, University Hall. Frances Searle carpet was approved for same but is not yet complete.
10. University Library 3322: provided furniture, technology, acoustic panels & markerboards.
11. Tech M345: added power to 50% of seats so 100% of 105 seats in classroom have power outlets.
12. Looking ahead to FY2013: approvals were given during 2012 meetings to replace furniture in Tech LR3 and Tech L211. This will complete the replacement of 17 year old pedestal seating with post and beam seating. Furniture replacement in these rooms will spend the balance of FY2012 allocation, plus about 15k of FY2013 allocation. Carpet in Frances Searle will also come from the FY2013 allocation, leaving approximately 455k to be assigned for new project work.

Please see Appendix I for a detailed list of all FY 2012 approved projects

### **Changes in Classroom Committee Role, Focus, and Structure**

In 2011-2012, the University implemented a new oversight structure for technology in the University, which has affected the role, focus, and structure of the Classroom Committee. An IT Executive Committee (replacing the Enterprise Systems Executive Committee/ESEC) will be advised by a set of committees on educational technology, research technology, administrative systems, infrastructure technology, and customer service. Ron Braeutigam will chair the Educational Technology Advisory Committee (ETAC), which will be comprised of invited representatives from the schools, Searle Center for Teaching Excellence, and students. The purpose of ETAC is to:

- Develop and oversee direction, strategies and plans for meaningful and innovative use of technologies which effectively evolve, enable and support teaching and learning across the University.
- Identify opportunities for solutions that are broadly beneficial and/or specialized solutions/approaches that might be leveraged in multiple disciplines or area, and make recommendations to the IT Executive committee (formerly ESEC) regarding development, funding and policy.

After a series of nine meetings, to date, beginning in Spring 2012, ETAC has identified the following primary areas of review and study: creating of a breakout group to review and make recommendations regarding the NU course management system; a longer-range study of learning analytics; support of new, online education efforts, and support of "flipping the classroom" efforts by a growing number of NU faculty. The development of active learning classrooms is also a priority for several schools represented on ETAC, but this effort is seen as a longer term effort that will require considerable coordination among selected schools, the Classroom Committee and STEM faculty committed to curriculum redesign.

Since Ron Braeutigam is chairing the Educational Technology Advisory Committee, he has rotated off the Classroom Committee and will no longer chair the Classroom Committee Quality subcommittee. Joel Trammel is now chairing the Classroom Committee Quality subcommittee. The function of the Classroom Committee Teaching Methodology/Technology subcommittee has been subsumed by the Educational Technology Advisory Committee; thus this subcommittee will not continue as part of the Classroom Committee. ETAC and the Classroom Committee will coordinate closely with one another. Bob Taylor will serve as liaison between ETAC and the Classroom Committee for the immediate future.

### **Update on installation of Wifi points in general purpose classrooms**

The Undergraduate Priorities Budget Committee (UBPC) requested funding for FY2012 for a pilot project to install wireless access points in the larger general purpose classrooms. Central funding was provided for installation of wireless points in Tech LR4; Tech LR5; Parkes 212; Parkes 213; Parkes 214; and Parkes 215 during 2011/2012, the first year of the pilot. Additional central funding was provided during FY2013 for completion of the pilot project, with the installation of wireless points in the remaining large general purpose classrooms, Tech LR2, Tech LR3, Tech M345 and Fisk 217 auditorium, as requested by UBPC.

## **Classroom Utilization**

During the 2011-2012 Academic Year, the Utilization Subcommittee has focused on:

- Implementation of X25 scheduling software, and use of its reporting tools;
- Current utilization of Kresge and what this means for taking Kresge off-line for renovation;
- Use of classrooms by student groups and for other activities;
- The need to have courses and events held in departmentally scheduled classrooms included in X25. (Note: some progress is being made for departmentally scheduled classrooms in Kresge/Crowe)

### **RES & Implementation of X25 Scheduling and Reporting Tool**

Over the last academic year, the Office of the Registrar has implemented the online scheduling system 25Live and has branded it for Northwestern as the Room and Event System (RES). RES uses information from the database system Resource25 (R25), managed exclusively by the Office of the Registrar, and makes it accessible to users via the web. RES allows departments and scheduling offices to retain individual control of their space schedules, while making specific information accessible across academic and administrative units for greater ease in finding available rooms and managing space utilization. This new tool is not just limited to course scheduling and seminars. It allows for the scheduling of events such as meetings, colloquia, presentations, tutorials, student group activities, etc. In just one year the system has grown from eleven schedulers to well over ninety, in WCAS, SoC, SCS, BSM, Medill, Kellogg and central administration, including A&RT. The system is ready to accommodate NU-Q and users across all of the schools have been trained extensively in the benefits and uses of the system. MEAS, SESP and Law are the only schools not yet utilizing this product. The spaces managed through RES are defined as academic spaces, or any space that has class meetings scheduled into it throughout the academic year. RES will not replace Microsoft Exchange for office and meeting room scheduling. All students, faculty and staff have access to RES through their netid and the total user pool has grown from 600 to well over 6,000 in just one year.

X25 implementation is approaching full functionality as the Office of the Registrar continues to audit information in R25 and complete data preparations. X25 links directly to the information housed in R25 and within recent months staff from Facilities Management received training specific to X25. Given its potential for many different types of analyses, the Utilization Subcommittee will need to review the range of reports now available using X25. In some instances, terminology and the interpretation of information will need to change. For example, X25 cannot generate a report that parallels past reports on standard vs. non-standard scheduling; instead, it generates reports based on compliant vs. non-compliant scheduling, which arrays information based on all schedule patterns during “prime time” and “non-prime time”. Schools that have committed to using RES will also receive training on how to generate and analyze data from X25 for space utilization and planning purposes.

X25 appears to result in room utilization numbers that are approximately 5% higher compared to the Excel-based data generated over the last decade. This is still being investigated and reviewed to better understand these discrepancies, though preliminarily appears that this results from access to a more complete data-set along with X25’s improved accounting of “passing time” between classes. Presently, two complete academic years of data are available on which X25 can report. Seat Utilization information is not yet available via X25 previous to Academic Year ’11-12. Curiously,

X25 cannot provide a comparison of “requested enrollments” to “actual enrollments”, which is a shortcoming the software vendor is currently attempting to correct.

## **Planning for Kresge’s Renovation**

While Kresge’s renovation has been deferred a year and is currently anticipated to start in Summer 2014, the most pressing issue remains: “swing-space” classrooms for the interim loss of Kresge’s Registrar classrooms (19) and Departmentally scheduled seminar rooms (~11). Kresge’s Registrar classrooms are the most heavily utilized on the Evanston campus, not just for scheduled courses (for Academic Year ’11-12: 81.8% room utilization), but also for student activities and other events. The extent to which low classroom utilization elsewhere on campus can absorb the interim removal of Kresge’s classrooms is still a matter being explored.

Separate from the issue of interim classrooms during Kresge’s renovation, another more urgent question to be settled by early 2013 is: how many classrooms with how many seats should be in Kresge when it reopens. This assessment should not just be based on current patterns of classroom and seat utilization in Kresge. The potential for additional classrooms to come online in the Music/SoC Building and in the Jacobs Center after Kellogg’s new facility is completed will need to be considered vis-à-vis the pressures for more non-classroom programmed space in Kresge.

Analysis of Evanston’s classrooms in relation to capacity and seat utilization has identified Kresge, in particular, as a building in which the maximum and average enrollment in any term falls far short of the seat capacity. On the other hand, there are also a number of rooms in Kresge Hall that are occasionally used beyond their intended seat capacity. Kresge’s renovation provides an opportunity to create a better mix of classroom sizes to make better use of space and improve availability of rooms to meet needs in this campus location (see discussion of Harris Hall below).

Kresge also triggers concerns about the availability of space for student groups and other activities. Analysis using X25 revealed a significant amount of student group activities between 5pm to 10pm on weeknights and throughout the day on weekends. For example, the highest weeknight Registrar Classroom utilization for Fall 2011 was 40.5% (MTWRF 5-10pm). Many of these events were rehearsals for music and theatre productions, including the Dolphin Show and acapella groups. These are groups that not only make a certain amount of noise, but need space to move about freely in rooms. Over time, Kresge has become an amenable location for these activities which have not always been welcome, or suitable, in other buildings.

## **Utilization of New Classrooms**

### *Allison Hall*

During Academic Year ’11-12, one Registrar-controlled classroom was added on the first floor of Allison Residential Community, bringing the total number of Registrar classrooms to 119. Allison’s classroom with a capacity of 18 students had an average of 45.4% room utilization for the Winter and Spring Quarters of 2012. Seat utilization for these same quarters averaged 63.8%. The most common class subject scheduled in Allison was English (23 classes).

### *Harris Hall*

In Academic Year ’11-12 Harris Hall had over 70% room utilization (Fall 79.6%, Winter 75.8%, Spring 72.3%). Generally speaking, and notwithstanding statistical variance related to the switch to X25, utilization in Harris appears to be higher than it was before the renovation. Seat utilization in Harris has particularly improved compared to the years previous to the renovation. The average seat utilization for ’11-12 was 67.2%, which is 23 points higher than ’07-08. This suggests that improved utilization resulted from changes to the size and mix of classrooms as part of Harris’s renovation.

*Elder Hall*

This is the first full academic year that the two new rooms in Elder Residential Community have been online. The overall average room utilization for '11-12 was 30%. Room utilization peaked in Winter Quarter at 46.8%, but the Spring utilization was particularly low at 14.7%. The average seat utilization was 50.5%. Classes that were scheduled in Elder included mostly sciences (Physics, Chemistry, Biological Science). The radical drop in Spring utilization may indicate that, based on their initial use of these new rooms, faculty and/or students didn't find them to be desirable locations or well-suited to the sciences. This will need to be watched over the next couple years.

Please see Appendix II for detailed data on classroom utilization.

## Goals for FY2013

- Develop a 10-year schedule for the overall physical improvement of Registrar-scheduled (general purpose) classrooms, covering the period 2012 – 2022.
- Improve utilization of general purpose classrooms during Summer Session, through greater adherence to University scheduling policies and effective use of Room and Event Scheduling (RES) program.
- Collaborate with Educational Technology Advisory Committee (ETAC) in supporting initiatives to improve teaching technology in the University, as recommended by ETAC.
- Develop optimal solution for meeting need for classroom space during upcoming renovation of Kresge Hall (scheduled to begin in summer 2014), through full utilization of general-purpose classroom spaces as well as alternative classroom spaces and teaching spaces scheduled by the schools.
- Improve scheduling of school and department teaching spaces. Encourage schools not now using RES to adopt this program for management of spaces that they oversee. Provide meaningful data to the schools through the reporting capabilities in X25 software to help them make needed decisions about scheduling.
- Determine how best to connect with University initiatives arising from the University strategic plan, NorthWestern Will, especially as those initiatives relate to teaching and learning in NU classrooms.

**Appendices**

I. FY2012 Approved and Completed Projects

II. Overview of FY2012 Utilization Data for Registrar Classrooms

Appendix I: FY2012 Approved and Completed Projects

<b>funding, 11/1/12</b>	<b>fund name</b>	<b>amount:</b>		
820-1800100-80032487	FY2013 Class. Renov.	\$500,000	<b>mostly available 200k reserved Tech LR3/L211</b>	<b>PR000906</b>
820-1800100-80031031	FY2012 Class. Renov.	\$200,000		<b>PR000817</b>
820-1800100-80027927	FY2011 Class. Renov.	\$0		<b>PR000497</b>
820-1800100-80024536	FY2010 Class. Renov.	\$0		<b>PR000274</b>
820-1800100-80022342	FY2009 Class. Renov.	\$0		<b>PR000072</b>
820-1800100-80021239	FY2009 Laptop Acct.	\$0		<b>901091E</b>

**FY2012 PROJECTS STATUS:**

	<b>status</b>	<b>room</b>	<b>cap</b>	<b>sf</b>	<b>Description</b>	<b>Actual Cost</b>	<b>Funds Spent</b>
1	completed	Tech LR4	88	1,456	replace 10' screen; rotate projector	<b>\$2,500</b>	<b>\$2,500</b>
2	completed	Tech LR5	88	1,456	replace 10' screen; rotate projector	<b>\$2,500</b>	<b>\$5,000</b>
3	completed	Library 3322	16	425	AV equipment & prep work	<b>\$27,000</b>	<b>\$32,000</b>
4	completed	Swift 107	107	1,659	replace chairs (not metal frame) with newer style/. Repair strip aisle lights & carpet where needed.	<b>\$30,000</b>	<b>\$62,000</b>
5	completed	Tech LR2	277	5,300	provide new post and beam seating; awarded to KI	<b>\$85,000</b>	<b>\$147,000</b>
6	scheduled summer 2013	Tech LR3	277	5,300	new seating mostly by FY2012 funding	<b>\$140,000</b>	<b>\$287,000</b>
7	scheduled summer 2013	Tech L211	170	2,540	new seating from FY2012 funding	<b>\$70,000</b>	<b>\$357,000</b>
8	completed	Tech LR4	88	1,456	new seating	<b>\$41,900</b>	<b>\$398,900</b>
9	completed	Tech LR5	88	1,456	new seating	<b>\$41,900</b>	<b>\$440,800</b>
10	completed	Pancoe Aud.	105	1,808	reupholster seats & new seats in back	<b>\$15,000</b>	<b>\$455,800</b>
11	completed	Lunt 101, 102, 103			quiet a/c	<b>\$64,000</b>	<b>\$519,800</b>
12	completed	Tech Ryan Aud., Fisk 217 & Swift 107			FM work for A&RT Technology upgrades	<b>\$44,000</b>	<b>\$563,800</b>
13	completed	recarpet or extensively repair carpet tile			Annenberg: 6 rms; University Hall: 9 rms. University Library: 10 rms; Library recarpet 11 seminar rooms	<b>\$34,000</b>	<b>\$597,800</b>
14	completed	Tech LR5	88	1,456	power outlets to 50% of tables	<b>\$12,000</b>	<b>\$609,800</b>
15	completed	Swift 107	107	1,659	power outlets to 25% of seats	<b>\$14,000</b>	<b>\$623,800</b>
16	completed	Fisk 217	329	3,048	power outlets to 25% of seats	<b>\$22,000</b>	<b>\$645,800</b>
17	completed	Library 3322	15 ea.	270 ea.	furniture, acoustic panels, paint, window in door	<b>\$16,000</b>	<b>\$661,800</b>
18	completed	Parkes 212, 213, 214, 215, 222, 224			(6) doc. cameras	<b>\$50,000</b>	<b>\$711,800</b>

19	completed	University Hall 102, 118, 312, 412, 418			(5) doc. Cameras & (3) spares to A&RT	part of 50k	\$711,800
20	completed	Tech M345			power outlets for remaining 50% of seats	\$22,000	\$733,800

## Appendix II: Overview of FY2012 Utilization Data for Registrar Classrooms

Below is the summary of information for the Fall, Winter and Spring Quarters, and compared with classroom utilization data from previous years:

### **Daily Utilization for all Classrooms scheduled by Registrar: Comparison of Fall, Winter and Spring Quarters 1999 to 2012**

Utilization based on rooms scheduled for Fall, Winter & Spring (2011-12): average of 67.4% 9 to 5 daily;

Comparison: utilization between 1999 to 2011 dropped from 65% ('99-00), down to 59% ('02-03), down to 57% ('03-04), down to 55.5% ('04-05), but subsequently increased to 57.4% ('05-06), up to 60.8% ('06-07), up to 63.1% ('07-08), up to 63.3% ('08-09), up to 63.2% ('09-10), down to 59.0% ('10-11), and increased to 67.4%.\*

Compared to previous years based on rooms scheduled 9 to 5 daily ('99-00 vs. '02-03 vs. '03-04 vs. '04-05 vs. '05-06 vs. '06-07 vs. '07-08 vs. '08-09 vs. '09-10 vs. '10-11 vs. '11-12):

Fall Utilization: dropped from 66% to 61% to 58.1% to 57.8%, increased to 59.3 to 63.2% to 64.1%, dropped to 63.3%, increased to 64.5%, decreased to 62.0%, and increased to 69.7% in Fall '11.\*

Winter Utilization: dropped from 65% to 60% to 52%, increased to 58%, decreased to 57.5%, increased to 61.9%, to 63.9%, to 66.8%, decreased to 66.6%, 60.2%, and increased to 70.1% in Winter '12.\*

Spring Utilization: dropped from 65% to 56% to 54% to 51%, increased to 55.5% to 57.3% to 61.3%, decreased to 59.8%, to 58.3%, decreased to 54.8%, and increased to 62.4% in Spring '12.\*

For 2011-12 classroom utilization was highest during the Fall and Winter Quarters. Relative to trends and previous years, utilization for the Winter and Spring quarters increased. The actual increase, when the variance due to X25 is taken into account, is 7.1% for Winter and 4.5% for Spring. Overall utilization increased 3.5% from '10-11.

Compared to the previous year, all quarters of Academic Year 2011-12 have shown a noticeable return to an uneven distribution throughout the day, with utilization pressure being higher during the 10-noon and 1-3 time periods. For the 2011-12 Academic Year Winter had the highest utilization and Spring the lowest.

### **Room Utilization by Building 9 to 5 daily<sup>†</sup>:**

In buildings with multiple classrooms scheduled by the Registrar, Kresge, Harris Hall, and Technology Institute are the three building locations with the highest overall utilization: Kresge at 81.8% (compared to 77% in '10-11); Harris Hall at 75.9% (compared to 62.7% in '10-11); and Technology Institute at 75.4% (compared to 72.2% in '10-11). Of the years for which we have data, Kresge has consistently been the building with the highest utilization. Of buildings with only one classroom scheduled by the Registrar, utilization decreased in Coon Auditorium {Lev. Aud} to 64.1% (down from 76% in '10-11, but still a generous increase over previous years when it has been considerably lower), Swift Hall Lecture Room 107 at 68.6% (down from 76.1% in '10-11) and in Pancoe Auditorium to 60.8% (down from 65% in '10-11);

University Library, which has classrooms primarily with less than 20 seats is notably up in overall utilization (35.1% from 20.1% in '10-11). The improvement is highest in LIB3370 at 61.5% (up from 32.7% in '10-11). Seven other Library classrooms showed increases ranging from 17-22 points. The Classrooms on the 5<sup>th</sup> floor are the least utilized (LIB5333 at 19.9%, up from 6.9% in '10-11; LIB5722 at 7.9%, down from 163.6%; and LIB5746 at 13%, down from 14.8%)

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\* All room utilization comparisons with previous years are likely impacted by the apparent ~5% increase due to the switch to X25. See the section in the Report on X25 implementation.

<sup>†</sup> For this section, only calculations from X25 were used.

**Based on Size of Room Scheduled: Up to 20 seats; 21 to 80 seats; 80 to 120 seats:**

	'99-00	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09	'09-10	'10-11	'11-12*
Up to 20 (31 rms):	52%	46%	43%	39%	45%	46%	48%	47%	49%	42.3%	51.5%
21 to 80 (70 rms):	65%	62%	60%	61%	66%	67%	66%	67%	68%	66.5%	74.5%
21 to 40 (49 rms):	-----										70.3%
41 to 60 (17 rms):	-----										69.5%
61 to 80 (4 rms):	-----										75.5%
81 and larger (18 rms):	62%	64%	61%	56%	64%	65%	63%	66%	70%	68.9%	70.4%

Compared to Academic Year '10 -11, utilization increased in all size categories, but increased the most in classrooms of the smallest size (up 11.9%).

**Seat Utilization based on the Size of Scheduled Classrooms:**

Seat utilization represents the percentage of seats occupied when a room is used. While average seat utilization for rooms scheduled from 9 to 5 daily peaked in '03-04, seat utilization has typically been low. Classrooms with up to 20 seats (located in the Library) consistently have had the highest seat utilization.

	'99-00	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09	'09-10	'10-11	'11-12*
Up to 20 (31 rms):	61%	57%	65%	66%	64%	64%	66%	64%	62%	59.1%	68.1%
21 to 80 (70 rms):	47%	45%	53%	49%	45%	47%	48%	49%	50%	47.9%	51.9%
21 to 40 (49 rms):	-----										52.2%
41 to 60 (17 rms):	-----										52.1%
61 to 80 (4 rms):	-----										47.8%
81 to 120:	48%	51%	56%	53%	44%	46%	45%	46%	48%	49.9%	56.5%
120 and larger:	39%	39%	44%	43%	40%	41%	43%	44%	42%	41.7%	39.9%
Average	45%	47%	54%	53%	48%	50%	51%	51%	51%	49.6%	54.2%

For any classroom potentially targeted for a decrease in the number of seats, seat utilization specific to the classroom needs to be considered, along with options for shifting some scheduled courses into classrooms with a larger number of seats.