
FA 08, 10, & 12 Classroom Capacity Analysis

Pat Burns, VPIT

CRB Presentation

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CSU 2020: Where will we Put Another 8K Students for Instruction?

- Build enough more classrooms (iffy)
- Make better use of existing classrooms
 - Put more classes in classrooms
- Make better use of existing seats
 - Teach fewer, larger classes (constraints)
- Extend teaching hours and days
 - More 7 & 8 AM, and 4-10 PM classes
 - Saturday classes
- More online classes, displacing face-to-face

Likely...

- Will need to do all of these to meet capacity demands

Definitions: 8 AM to 5 PM M-F

- Utilization - % of classrooms used for a course section, at a particular time
- Occupancy - % classroom seats that are filled with a student, at a particular time
- Classroom sizes:
 - Older: Small, Medium, Large
 - Old: Small, Medium, Large, Very Large
 - Now: 8 bins – 1-10, 11-30, 30-50, 51-75, 76-100, 101-150, 151-250, >250

What Follows: All About ‘Sizes’

- Summary information for FA08, FA10, & FA12
- Classrooms and Course Sections
 - Do the sizes match?
- Course Sections
- Occupancy (Classrooms Used)
- Utilization (Seats Filled)

Totals

	FA08	FA10	FA12
Sections	3,481 (Base)	3,971 (+3.4%)	3,959 (-0.3%)
Utilization (Seat-Hrs. Used)	130,538 (Base)	138,249 (+5.9%)	139,044 (+0.6%)
Seat-Hrs. Avail.	222,175 (Base)	230,493 (+3.4%)	237,753 (+3.1%)
Student FTE	22,152 (Base)	23,298 (+5.2%)	23,721 (+1.8%)
Classrooms used *(some offline)	417 (Base)	449 (+7.7%)	429* (-4.7%)

FA08-FA12 CLASSROOMS

No. of Classrooms by Type & Size

Type*	Term	Small 1-30	Med. 31-100	Large > 100	Total
Gen. Assignment	FA08	23	101	24	148
	FA10	23	111	25	159
	FA12	24	110	26	160
Departmental	FA08	173	80	5	259
	FA10	195	86	6	287
	FA12	184	81	4	269
TOTALS	FA08	205	182	30	417
	FA10	221	197	30	449
	FA12	208	191	30	429

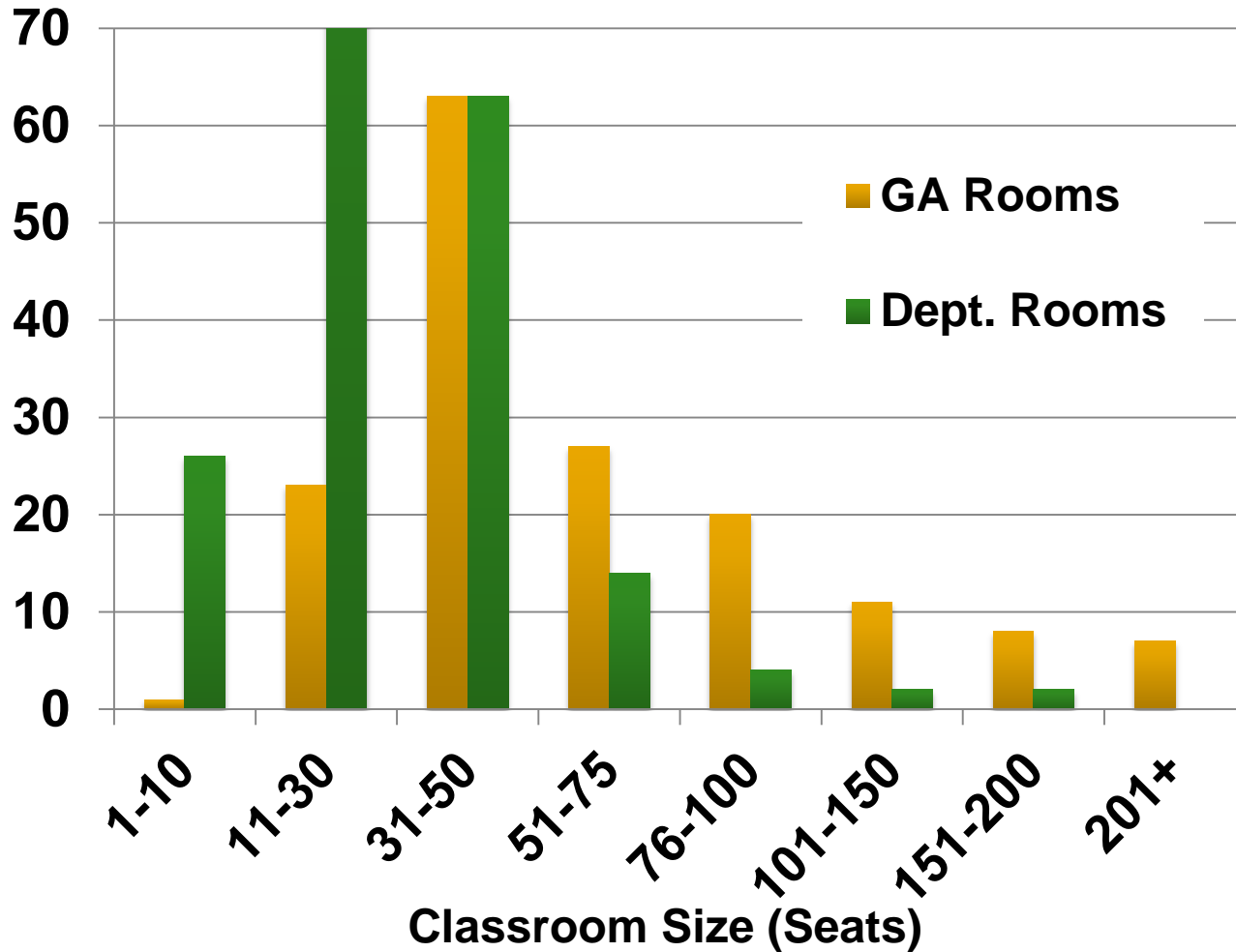
No. Classroom Seats by Type & Size

Type*	Term	Small 1-30	Med. 31-100	Large > 100	Total
General Assignment	FA08	599	5,405	4,321	10,325
	FA10	597	6,087	4,605	11,289
	FA12	627	6,052	4,718	11,397
Departmental	FA08	3,654	3,782	728**	8,164
	FA10	3,922	4,017	737	8,676
	FA12	3,669	3,784	617	8,070
Total	FA08	4,475	9,227	5,049	18,751
	FA10	4,570	10,104	5,342	20,016
	FA12	4,296	9,836	5,335	19,467

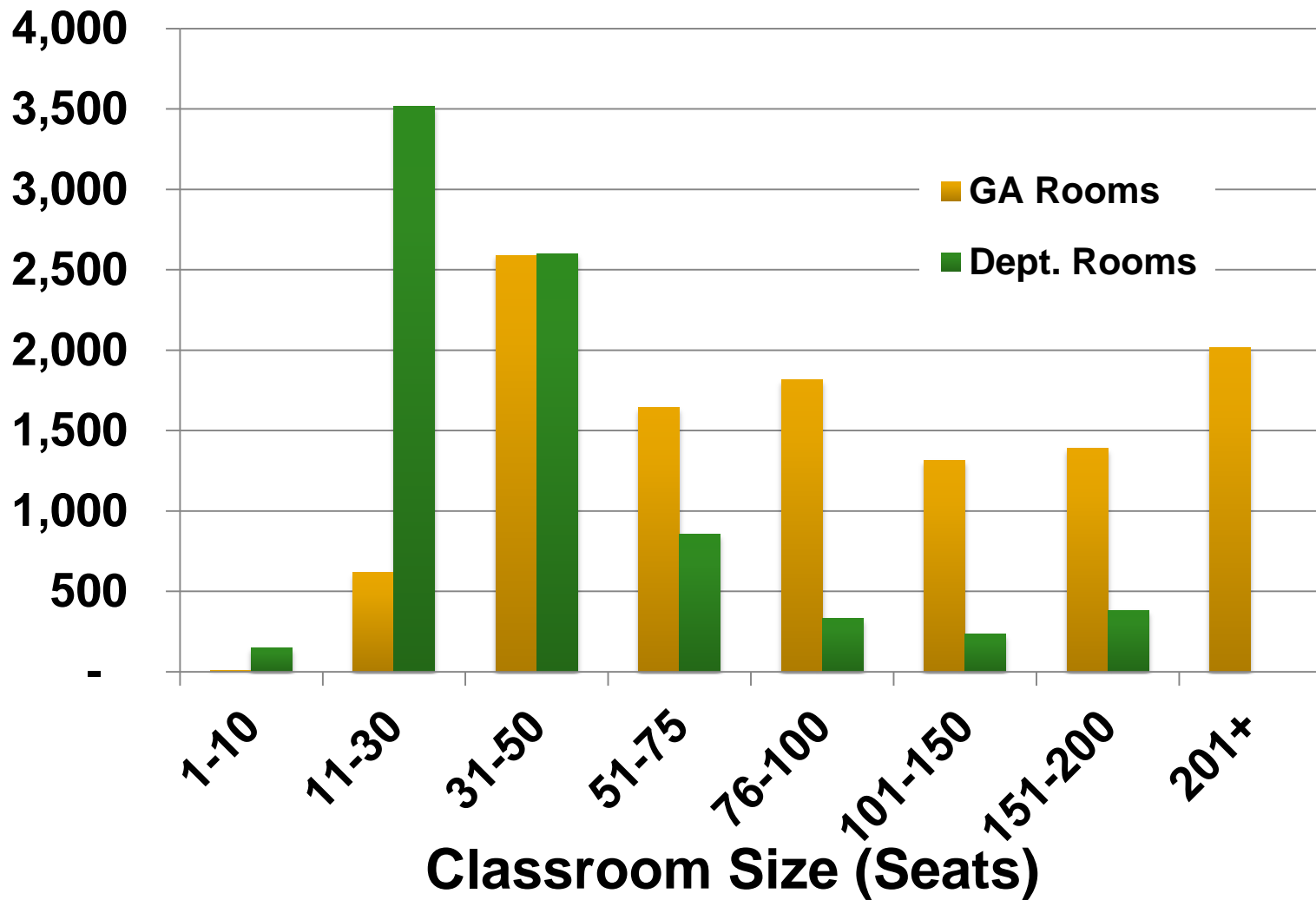
Summary

	FA08	FA10	FA12
Total FTE	22,152	23,298	23,721
Total Seats	18,751	20,016	19,423
Total Classrooms	417	449	429
Average Size (Seats)	45.0	44.6	45.3

FA12 Classrooms (in Bins)

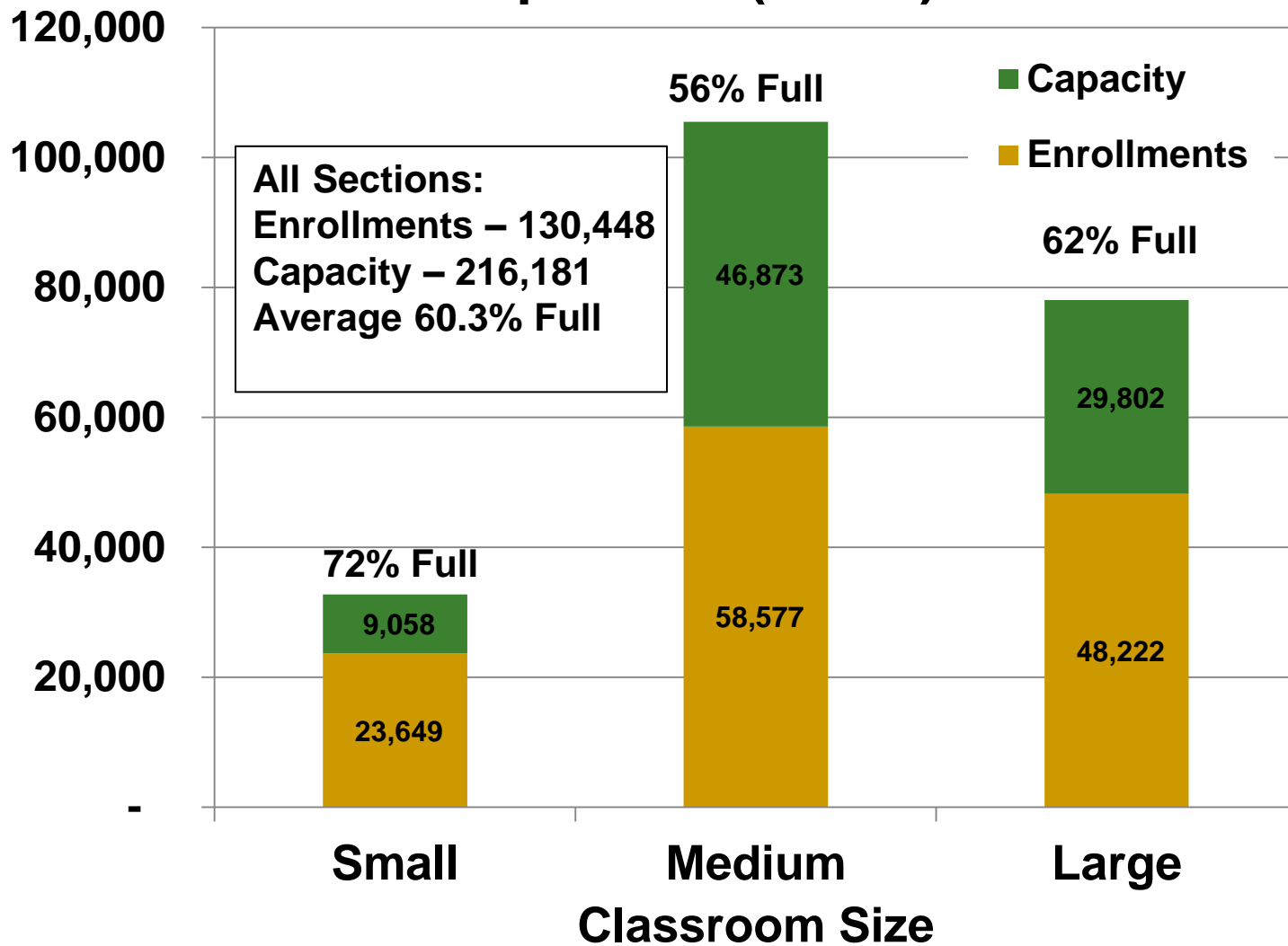


FA12 Seats (in Bins)

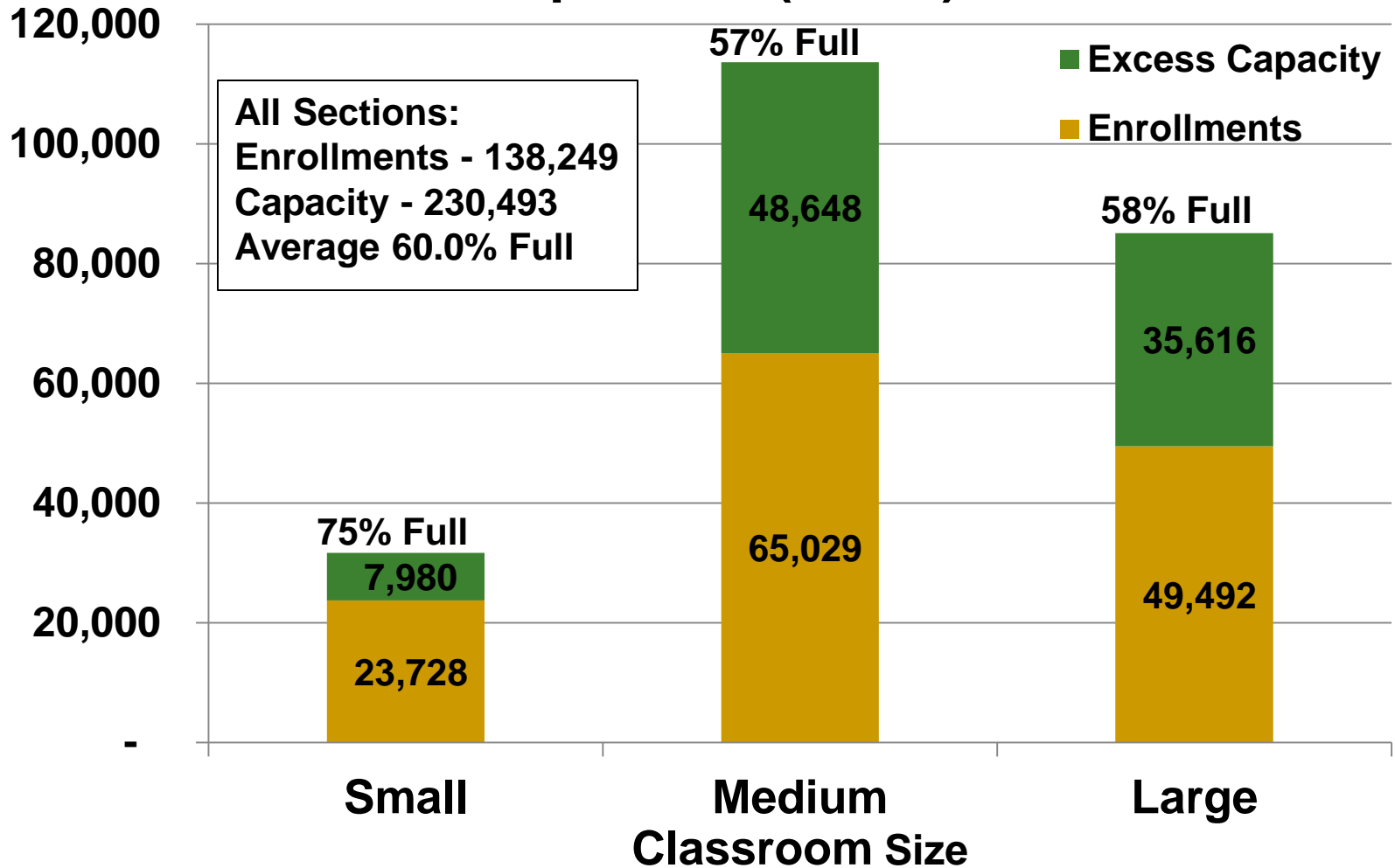


FA08-FA12 ARIES SECTION ENROLMENTS & CAPACITIES

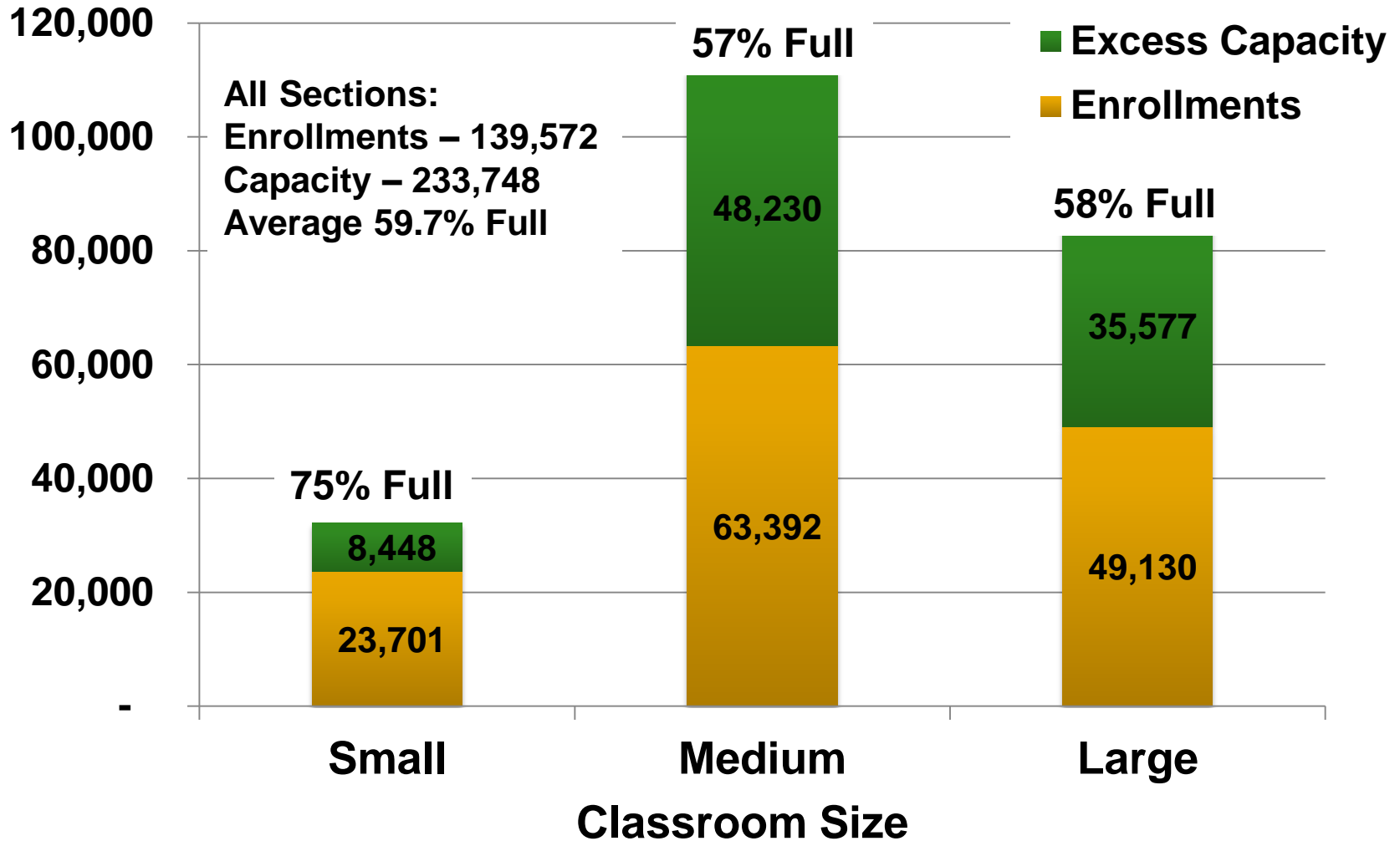
FA08 Section Enrollments and Excess Capacities (Seats)



FA10 Section Enrollments and Excess Capacities (Seats)



FA12 Section Enrollments and Excess Capacities (Seats)



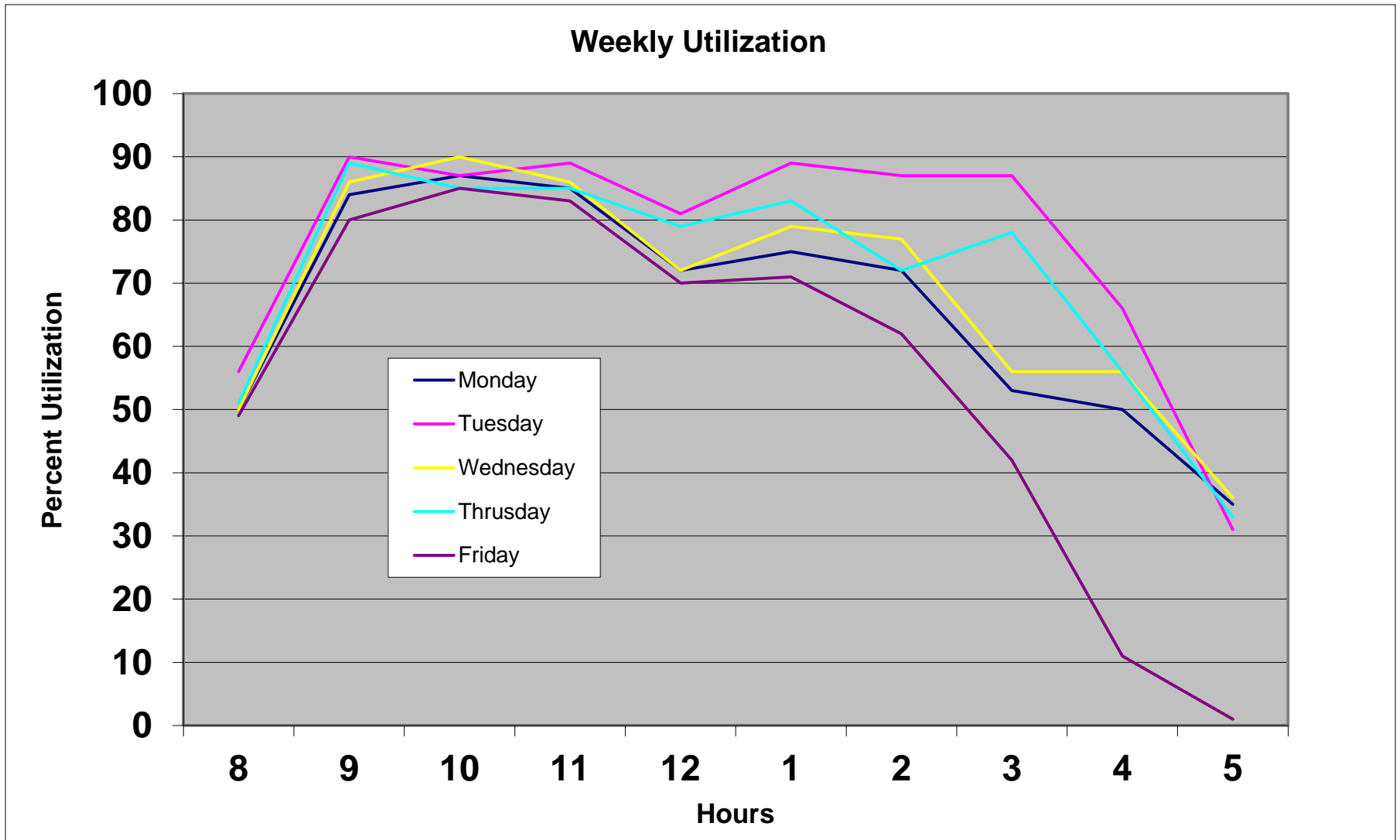
CLASSROOM UTILIZATION (CLASSROOMS USED)



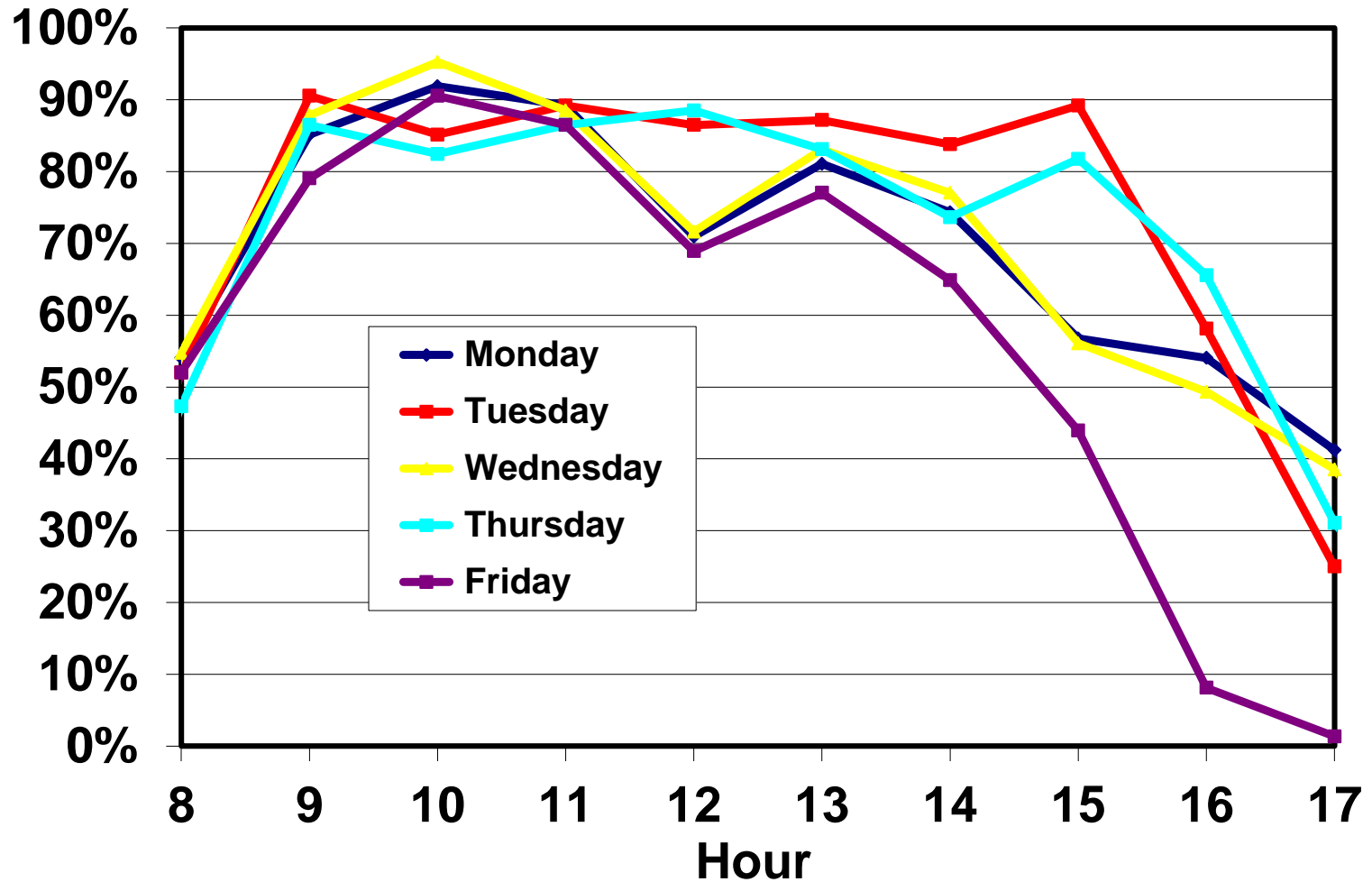
Framework

- Recall utilization = % of rooms used
- Presented in 'bins' of
 - Size of classroom
 - Small: 1-30 seats
 - Medium: 31-100 seats
 - Large: > 100 seats
 - By type of Classroom
 - Departmental
 - General Assignment

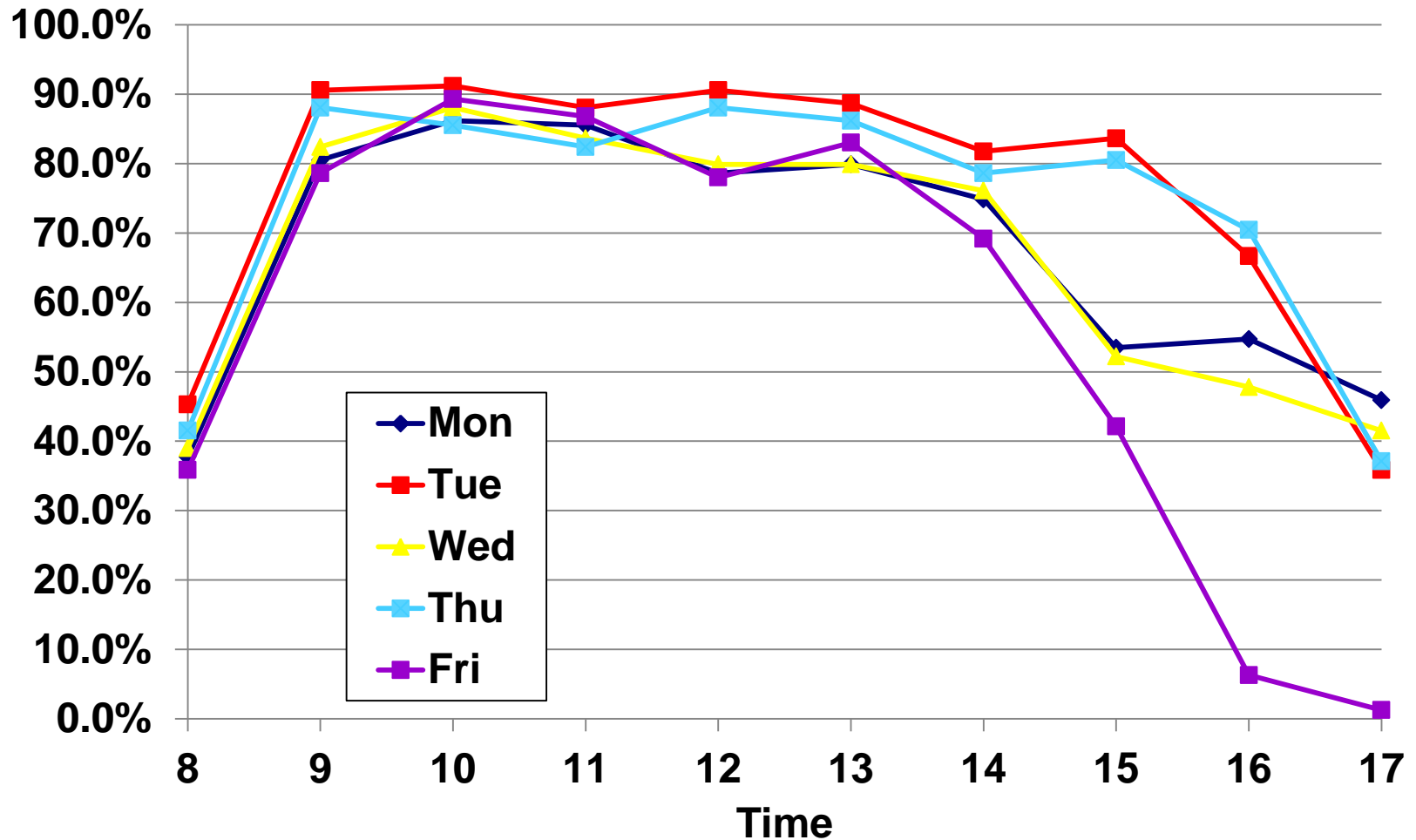
FA05 GA Utilization – All 152 Rooms



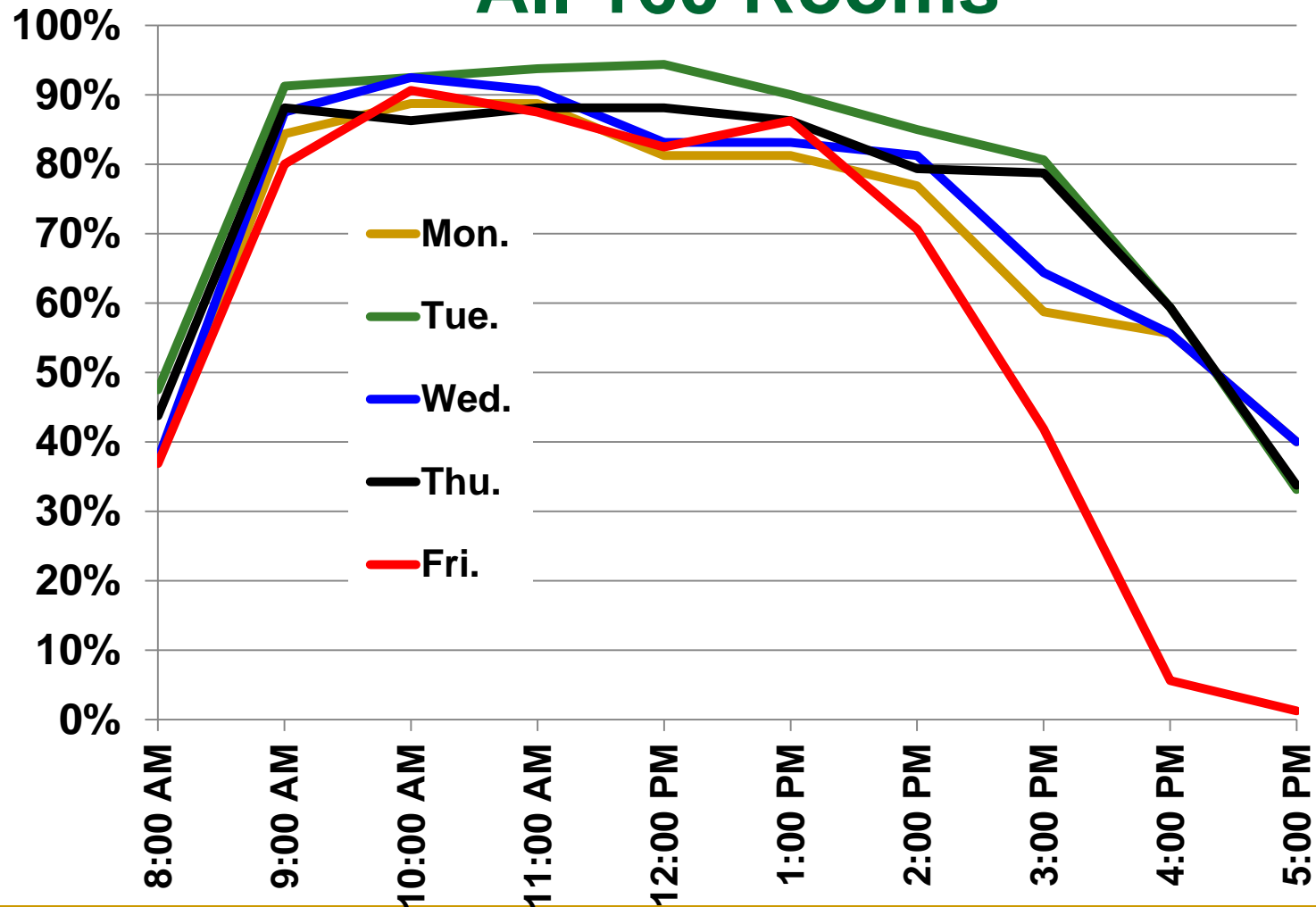
FA07 GA Utilization – All 147 Rooms



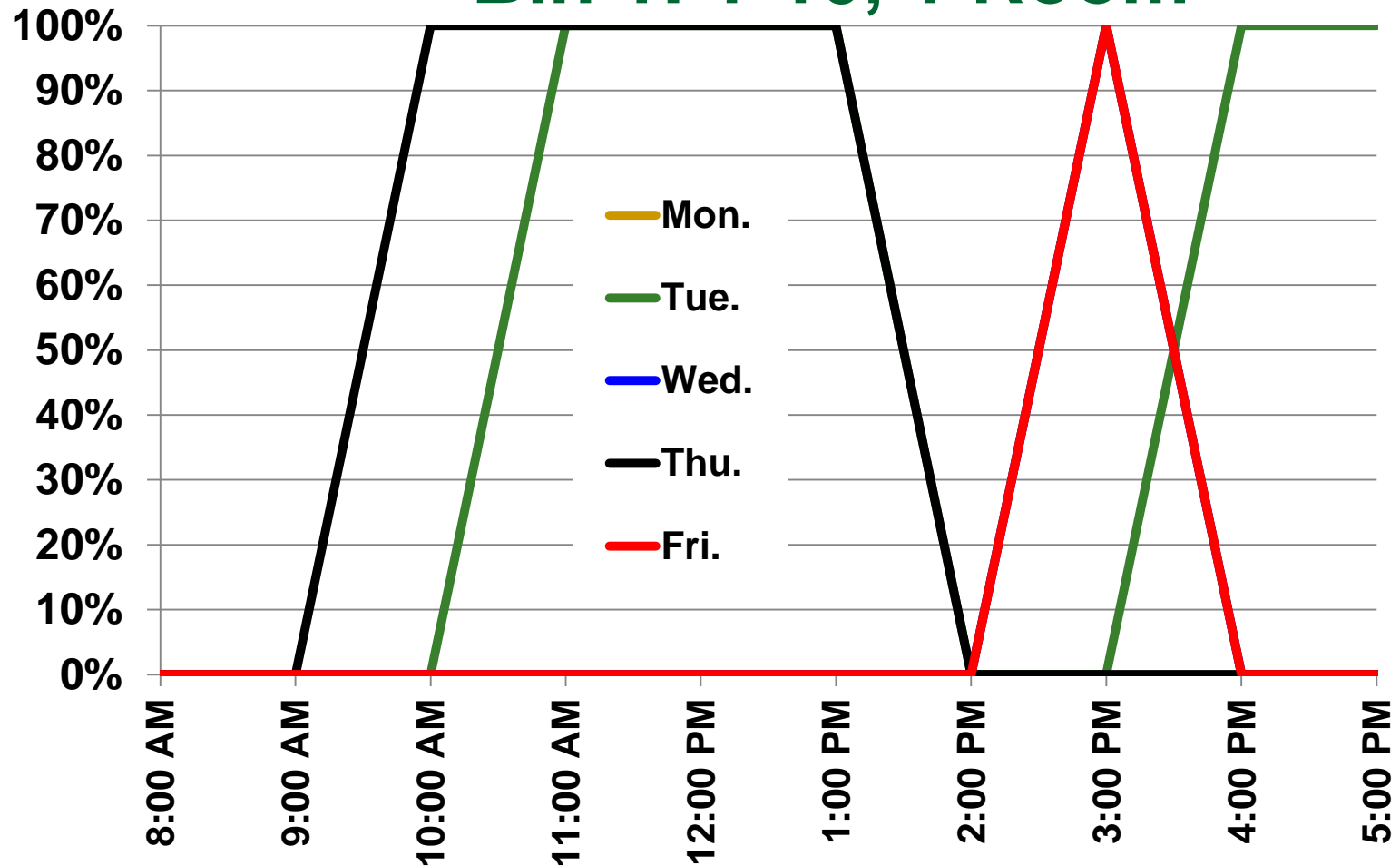
FA10 GA Utilization – All 159 Rooms



FA12 GA Room Utilization All 160 Rooms

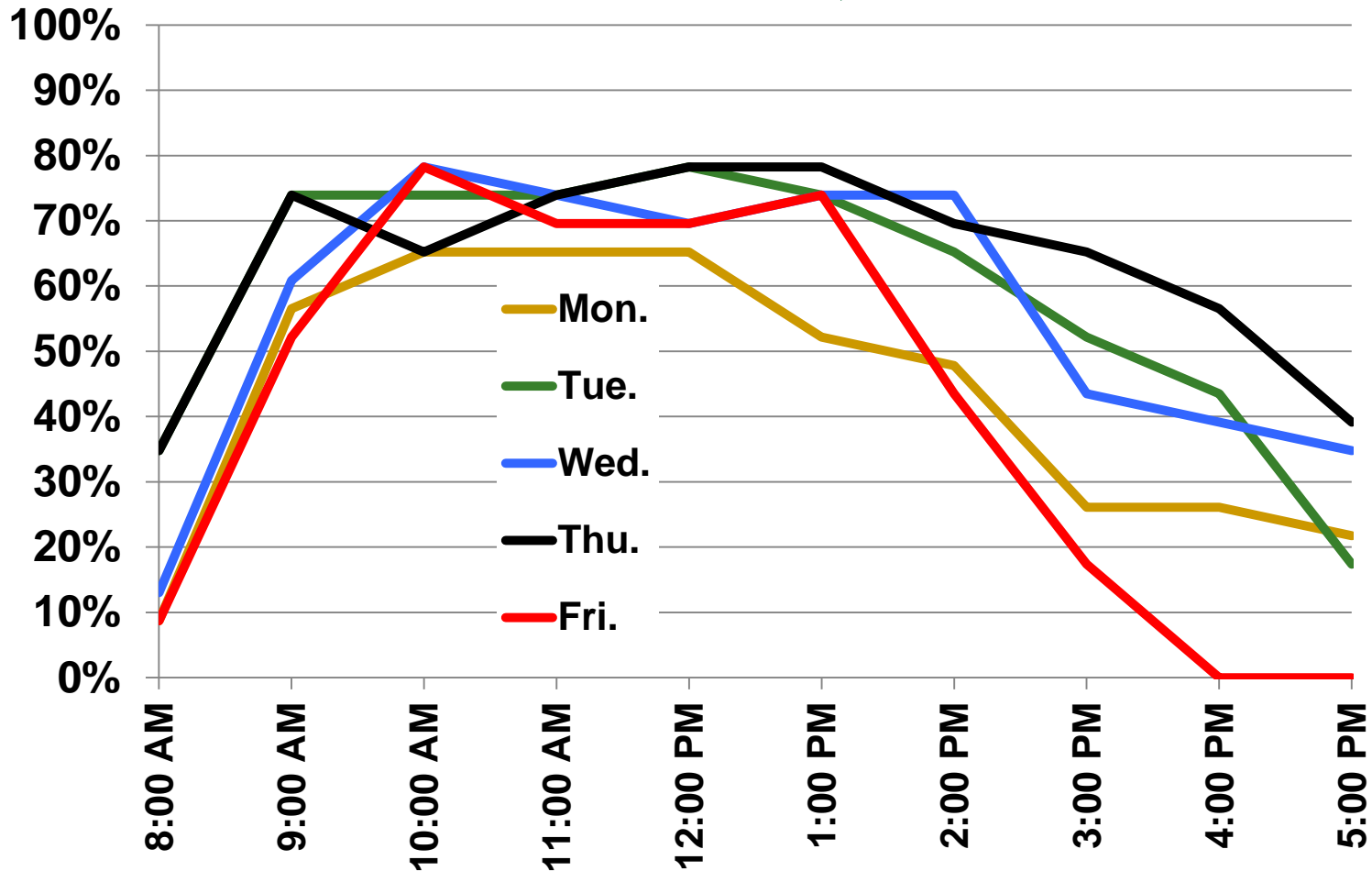


FA12 GA Room Utilization Bin 1: 1-10, 1 Room



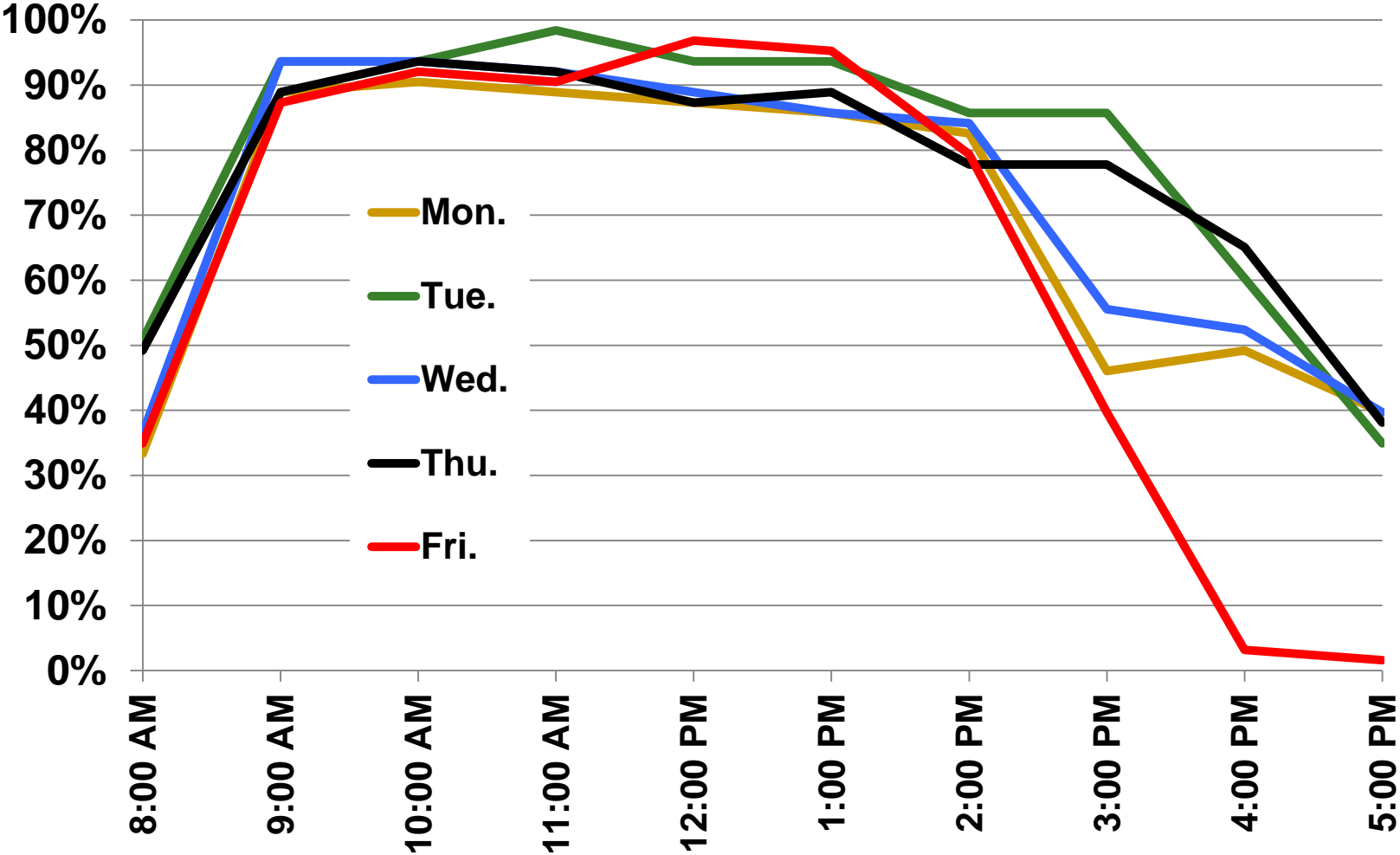
FA12 GA Room Utilization

Bin 2: 11-30, 23 Rooms

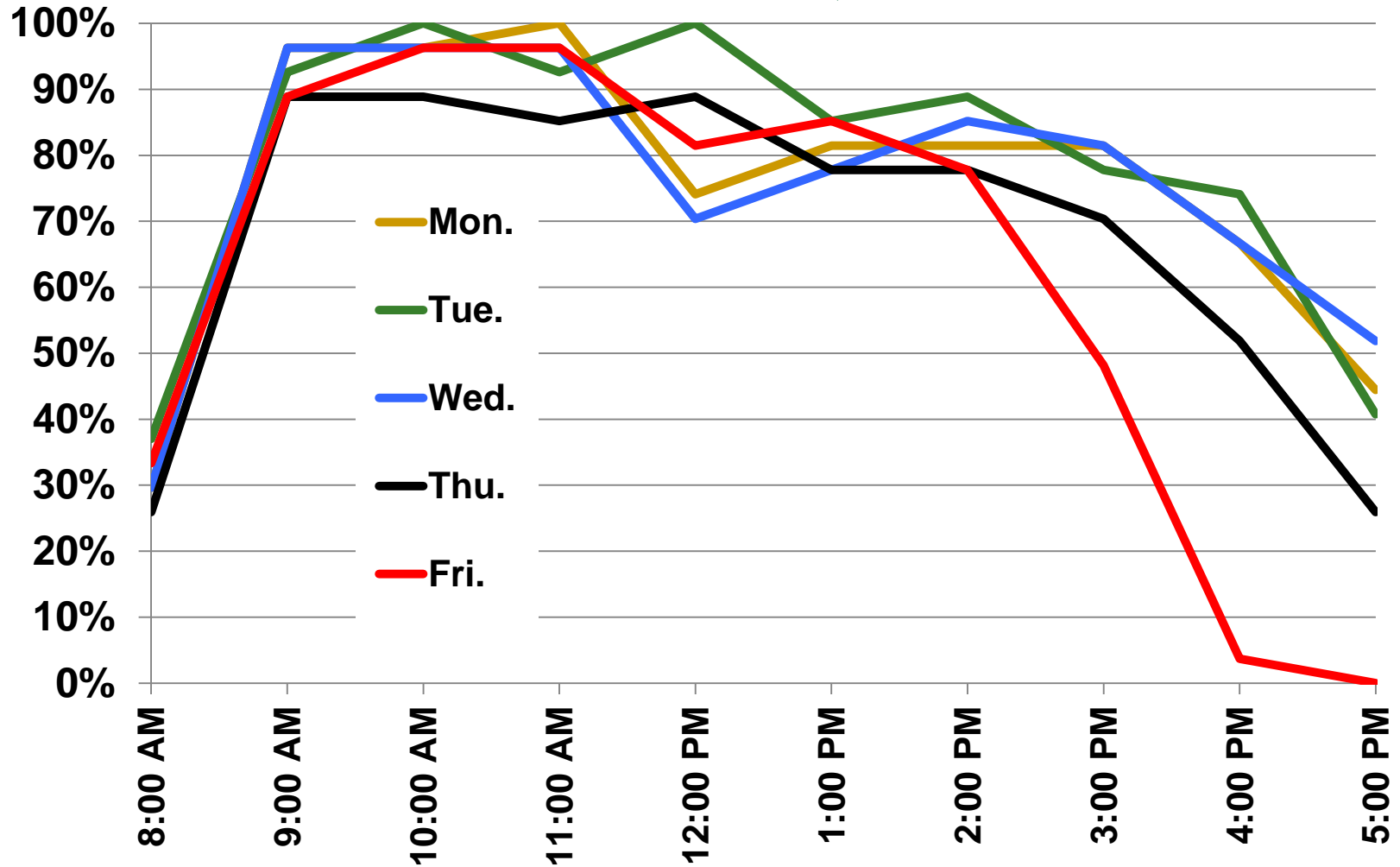


FA12 GA Room Utilization

Bin 3: 31-50, 63 Rooms

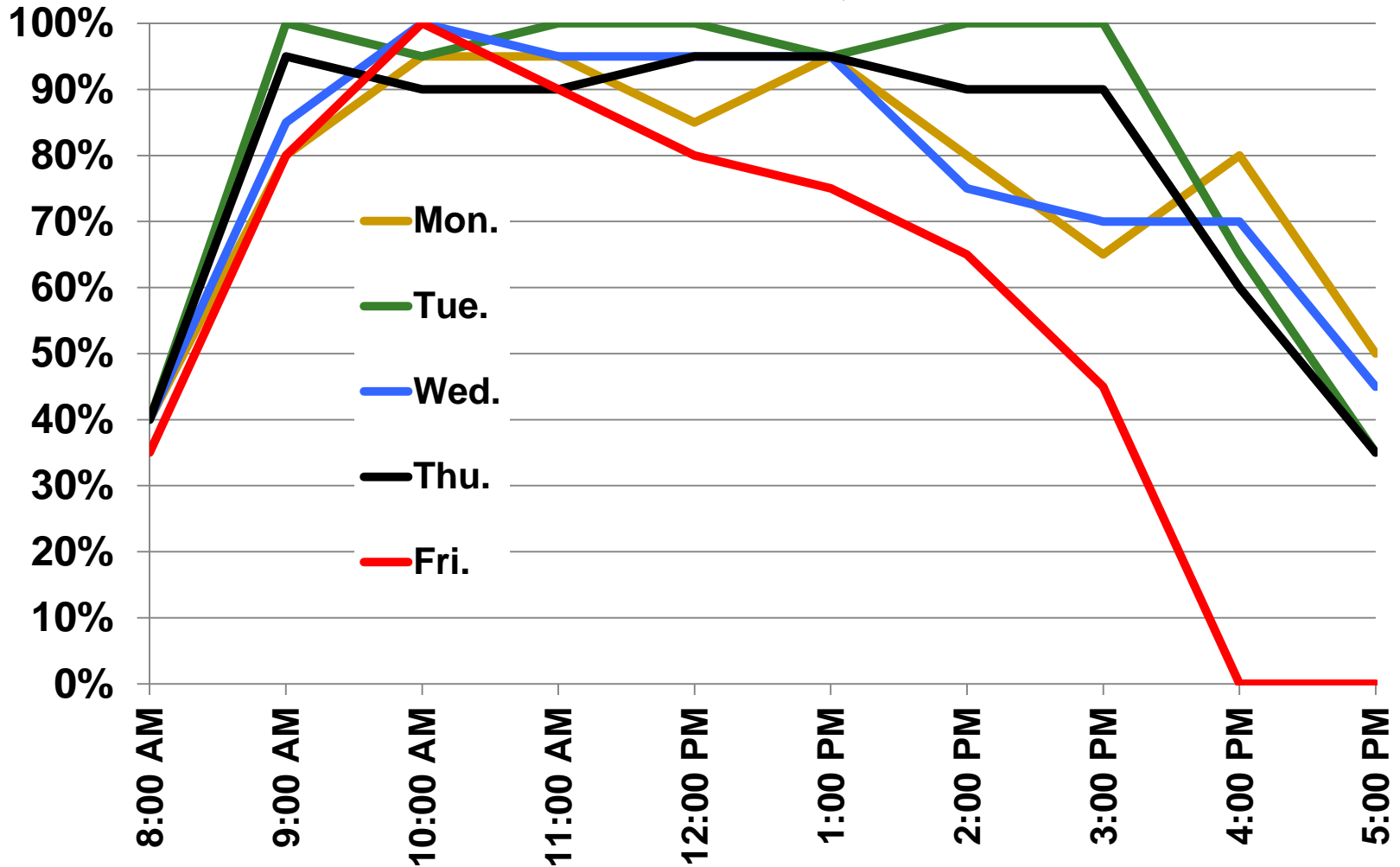


FA12 GA Room Utilization Bin 4: 51-75, 27 Rooms



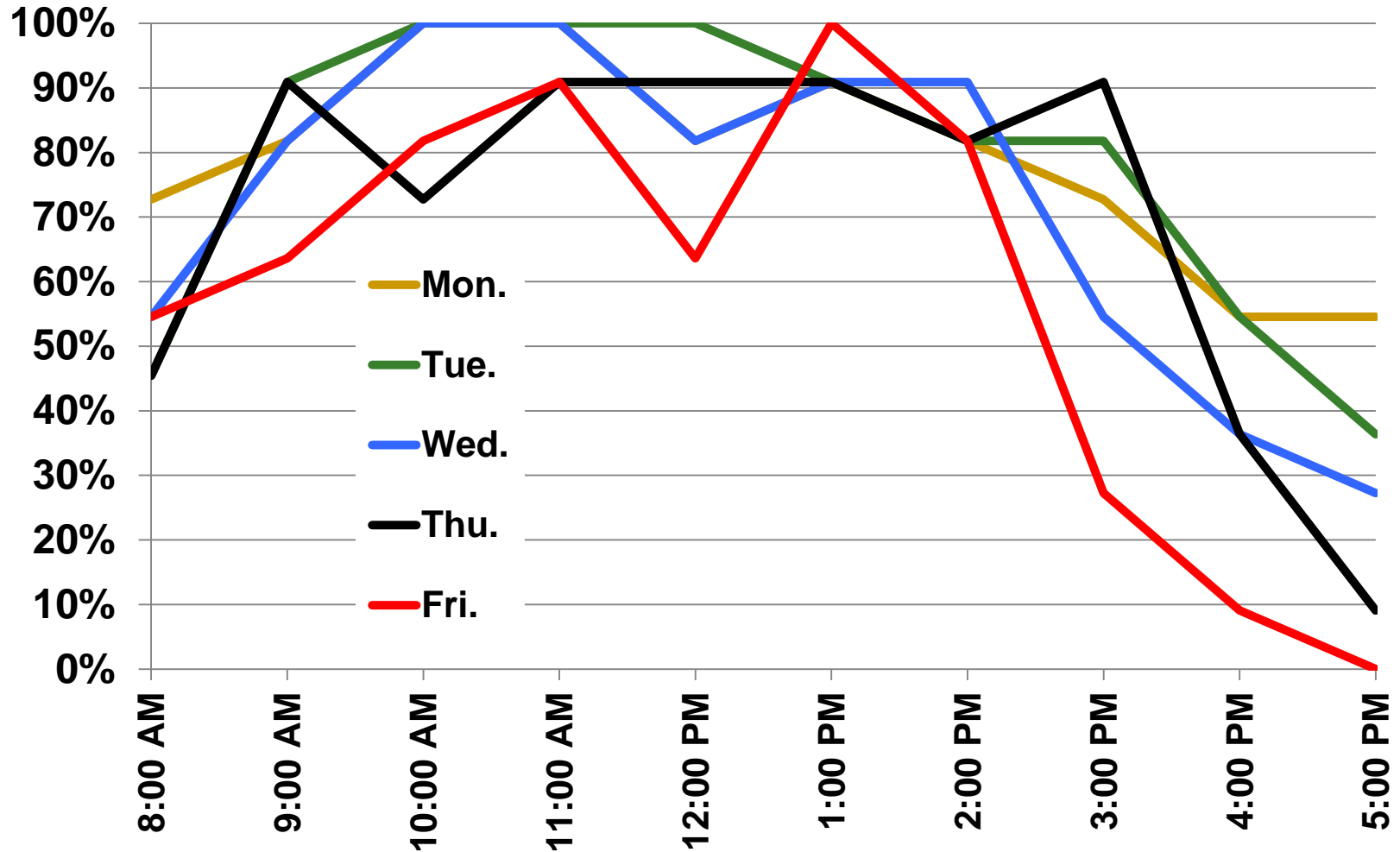
FA12 GA Room Utilization

Bin 5: 76-100, 20 Rooms



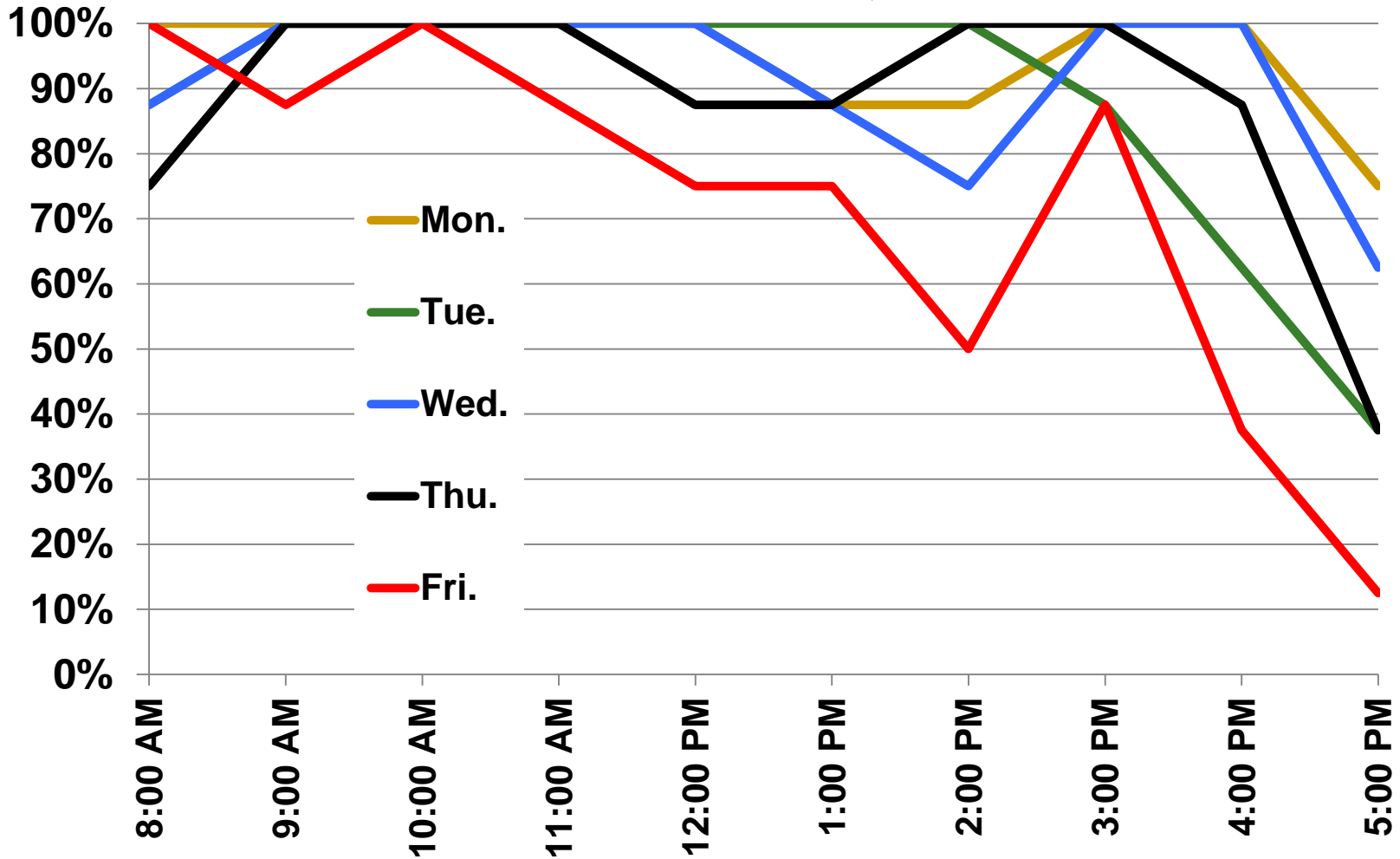
FA12 GA Room Utilization

Bin 6: 101-150, 11 Rooms



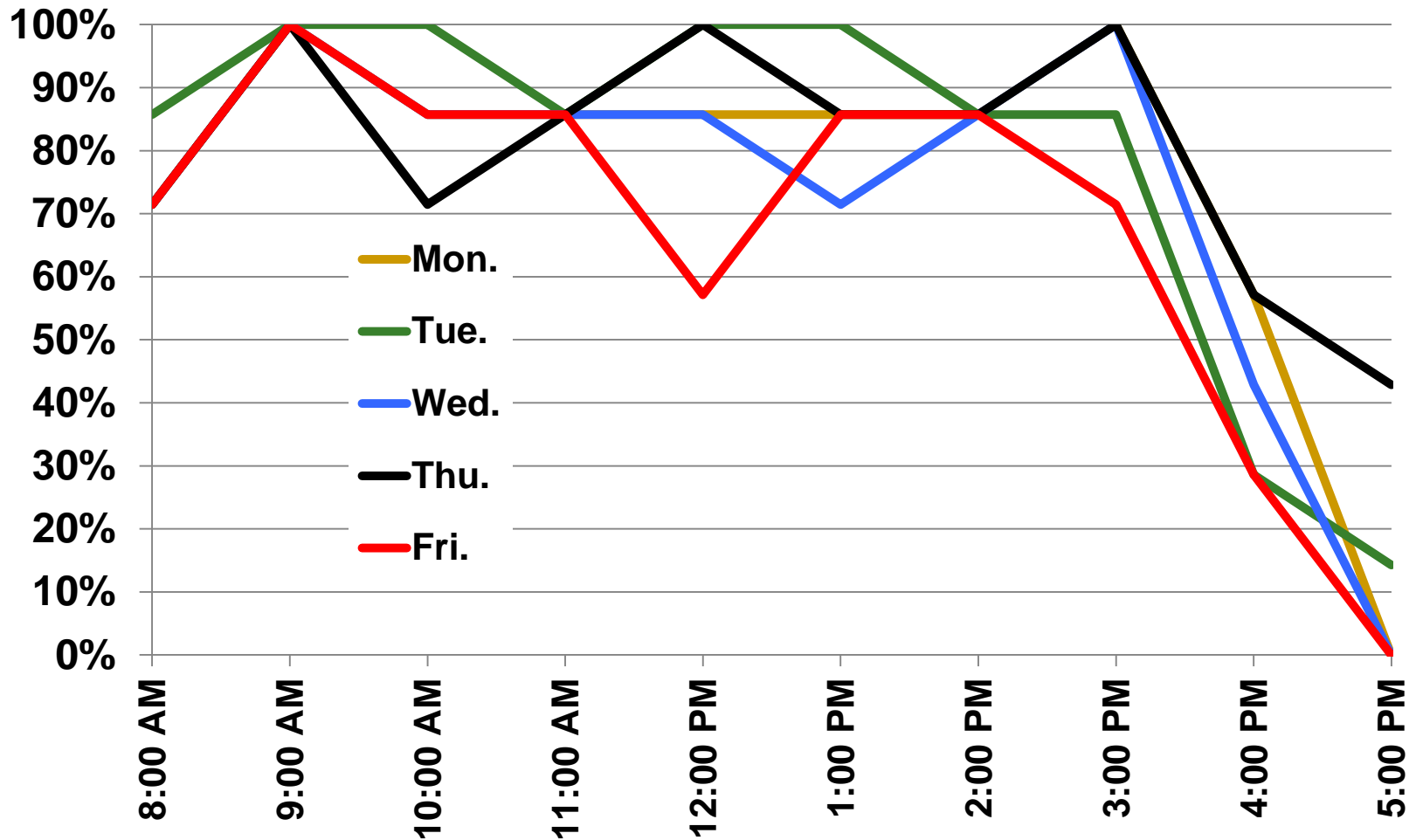
FA12 GA Room Utilization

Bin 7: 151-250, 8 Rooms

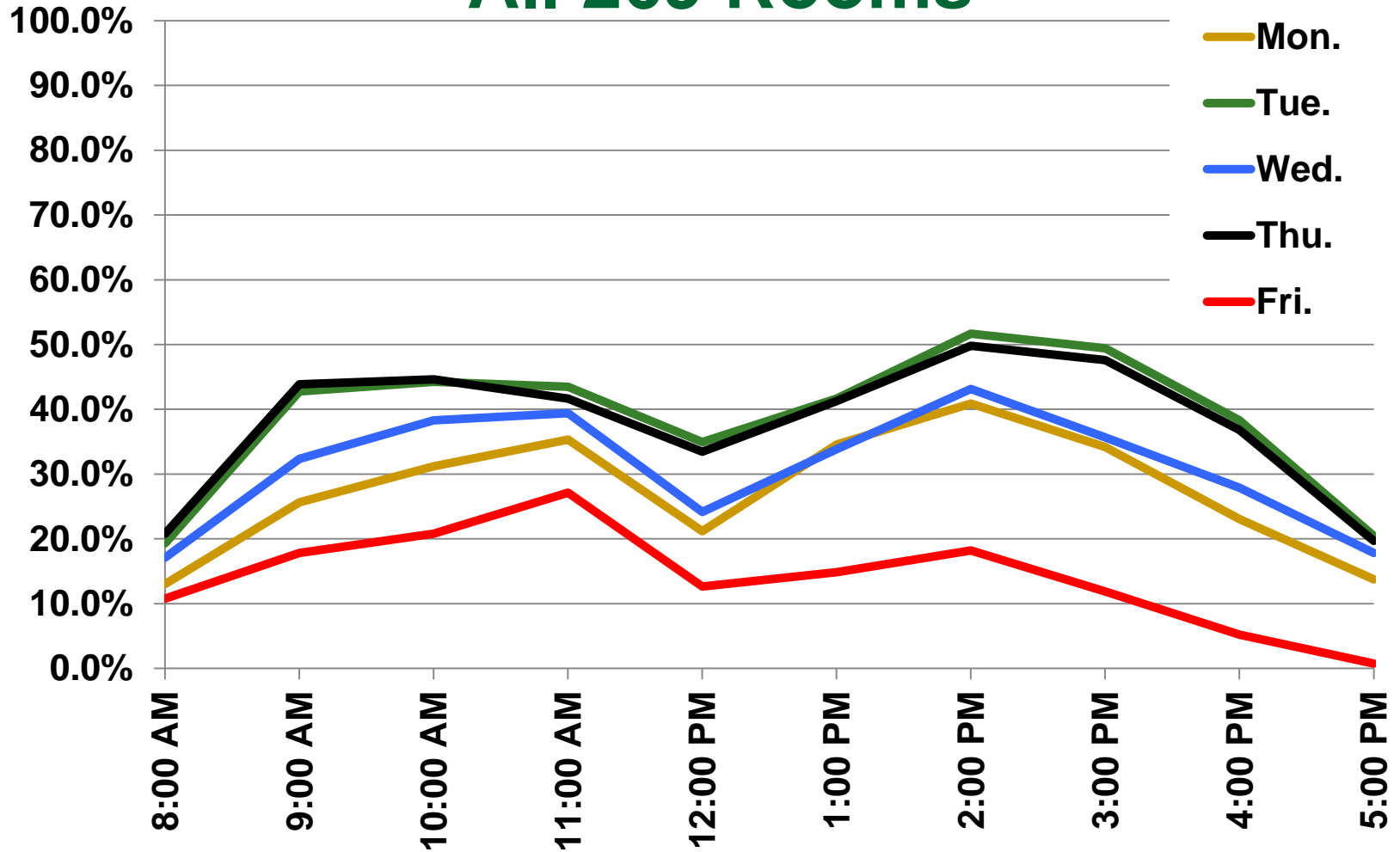


FA12 GA Room Utilization

Bin 8: >250, 7 Rooms

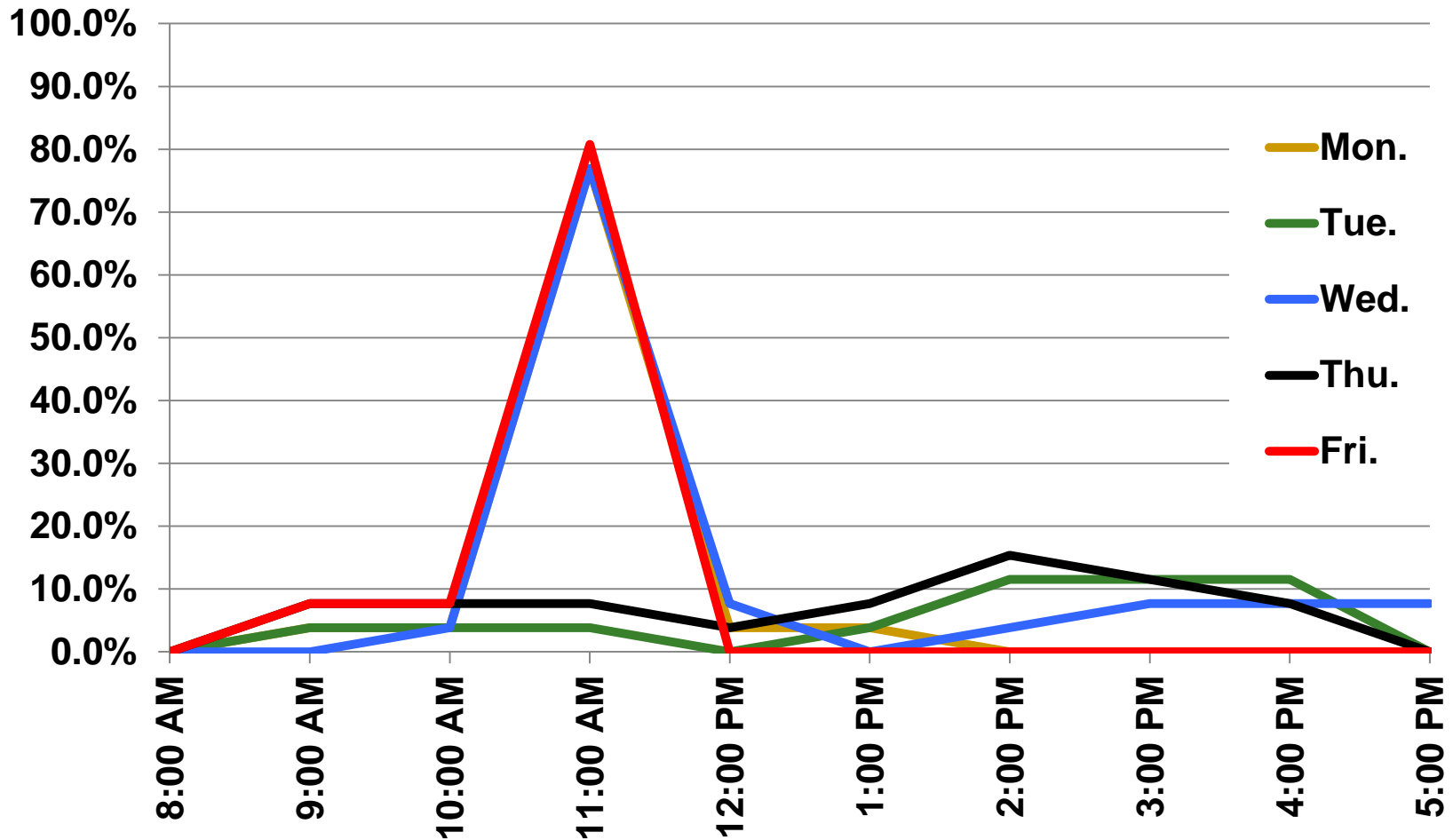


FA12 Dept. Room Utilization All 269 Rooms



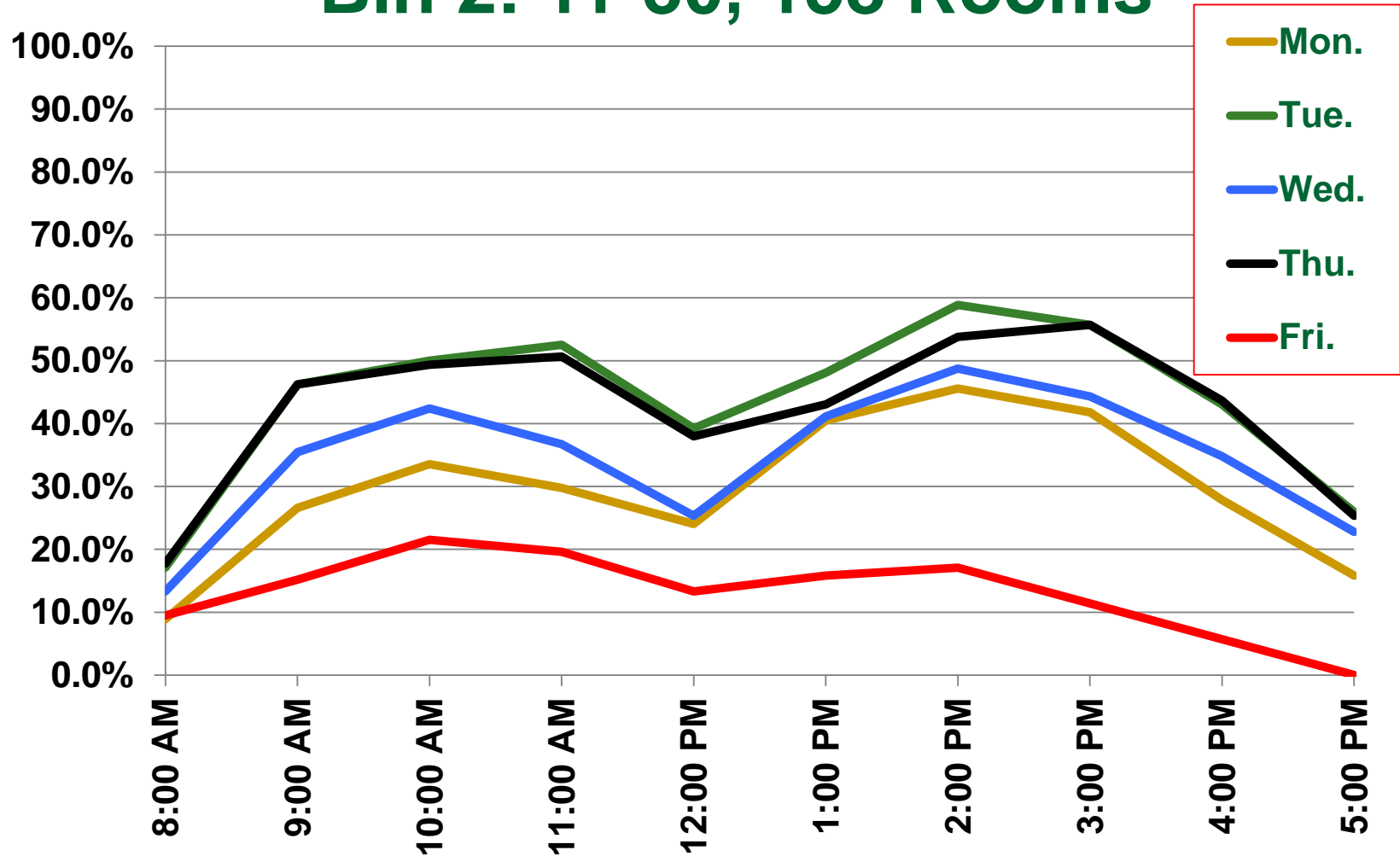
FA12 Dept. Room Utilization

Bin 1: 1-10, 26 Rooms



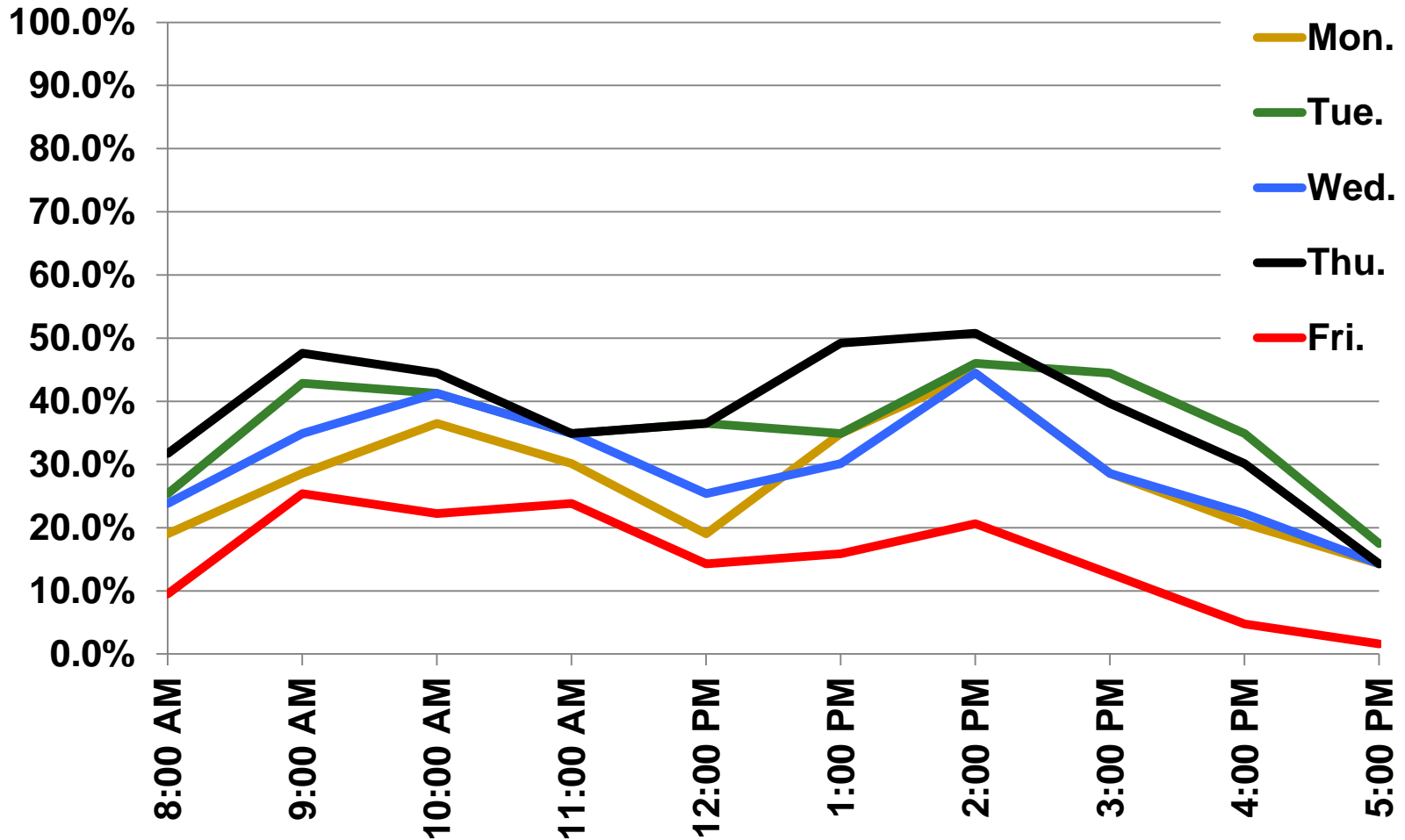
FA12 Dept. Room Utilization

Bin 2: 11-30, 158 Rooms

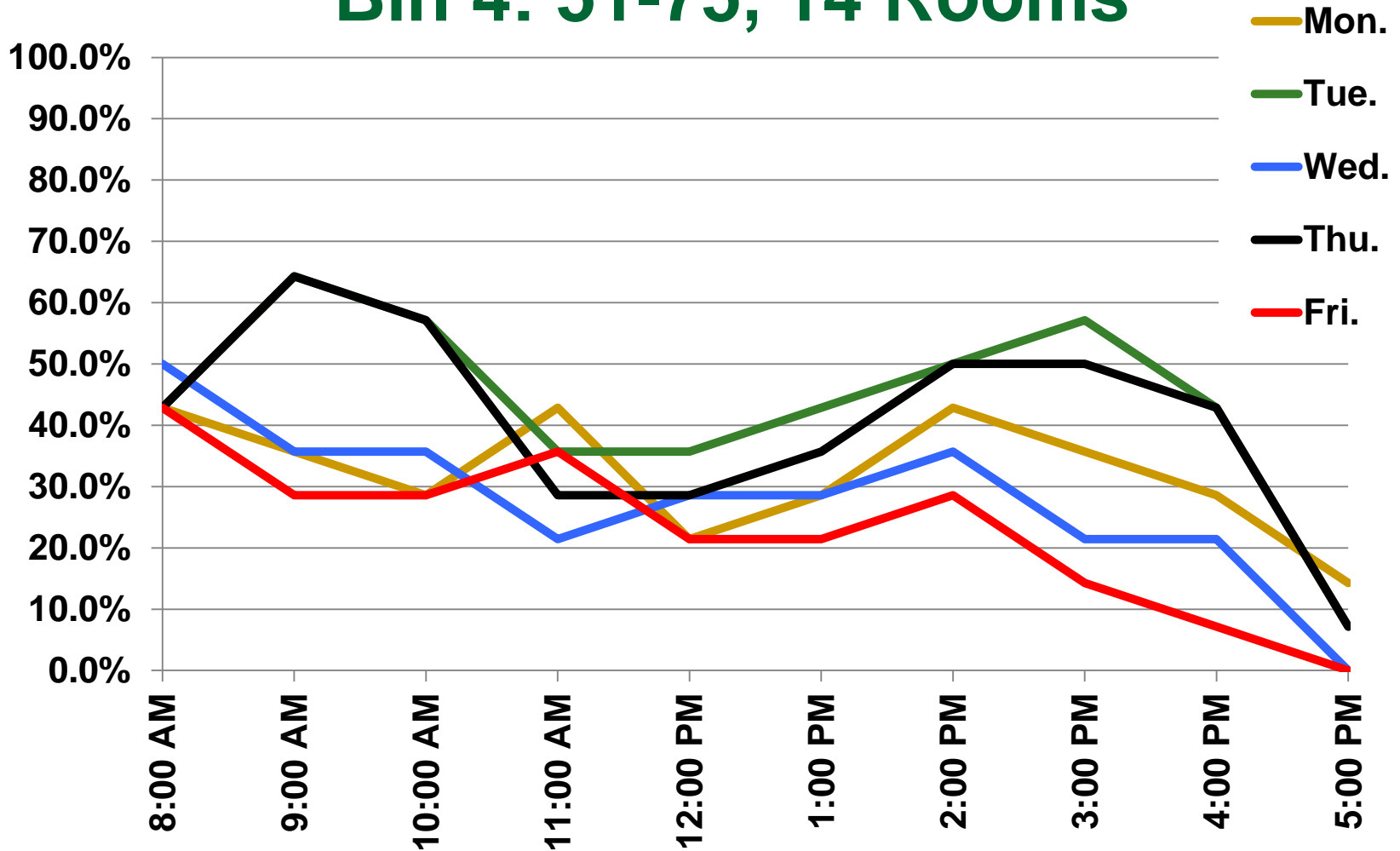


FA12 Dept. Room Utilization

Bin 3: 31-50, 63 Rooms

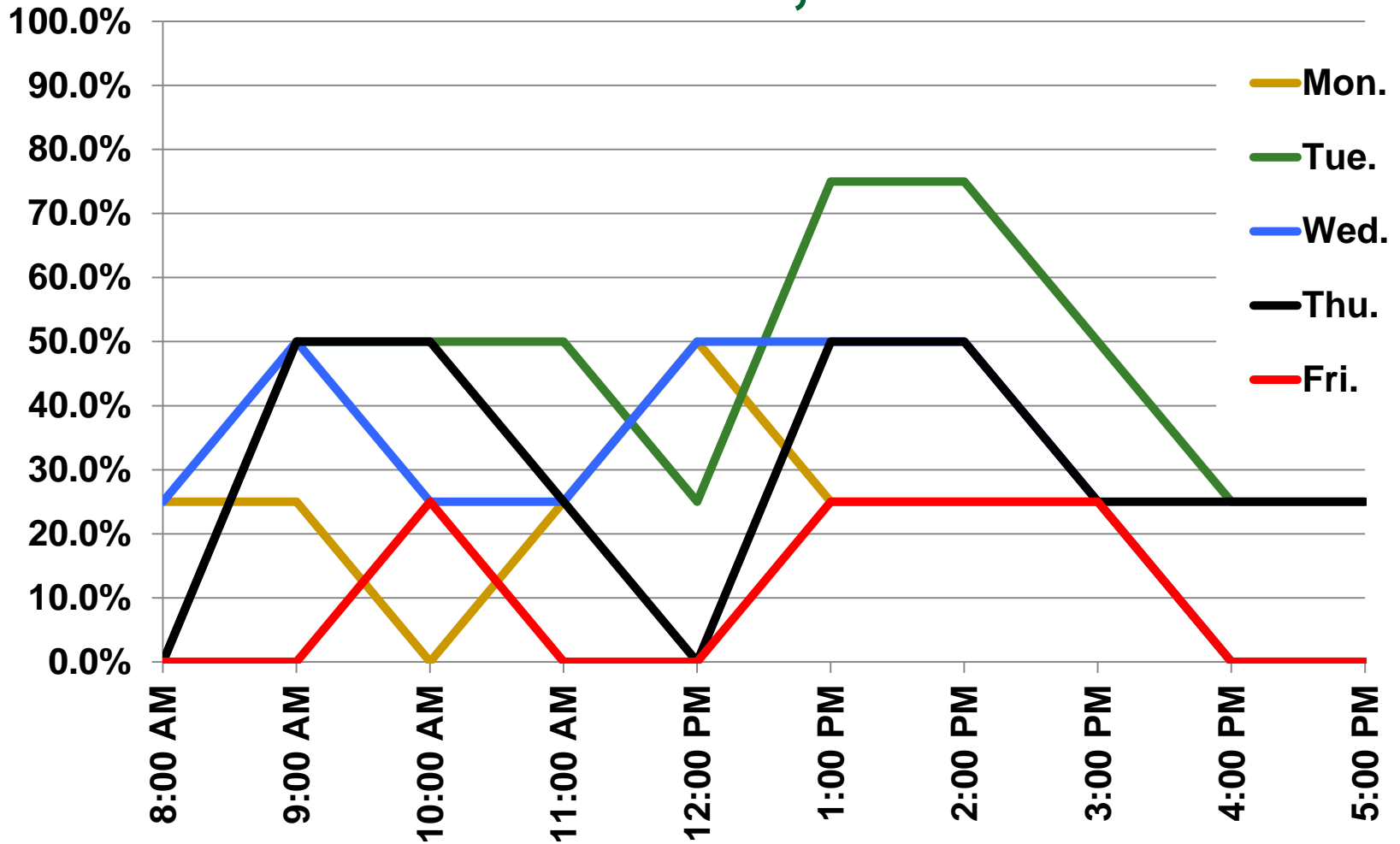


FA12 Dept. Room Utilization Bin 4: 51-75, 14 Rooms



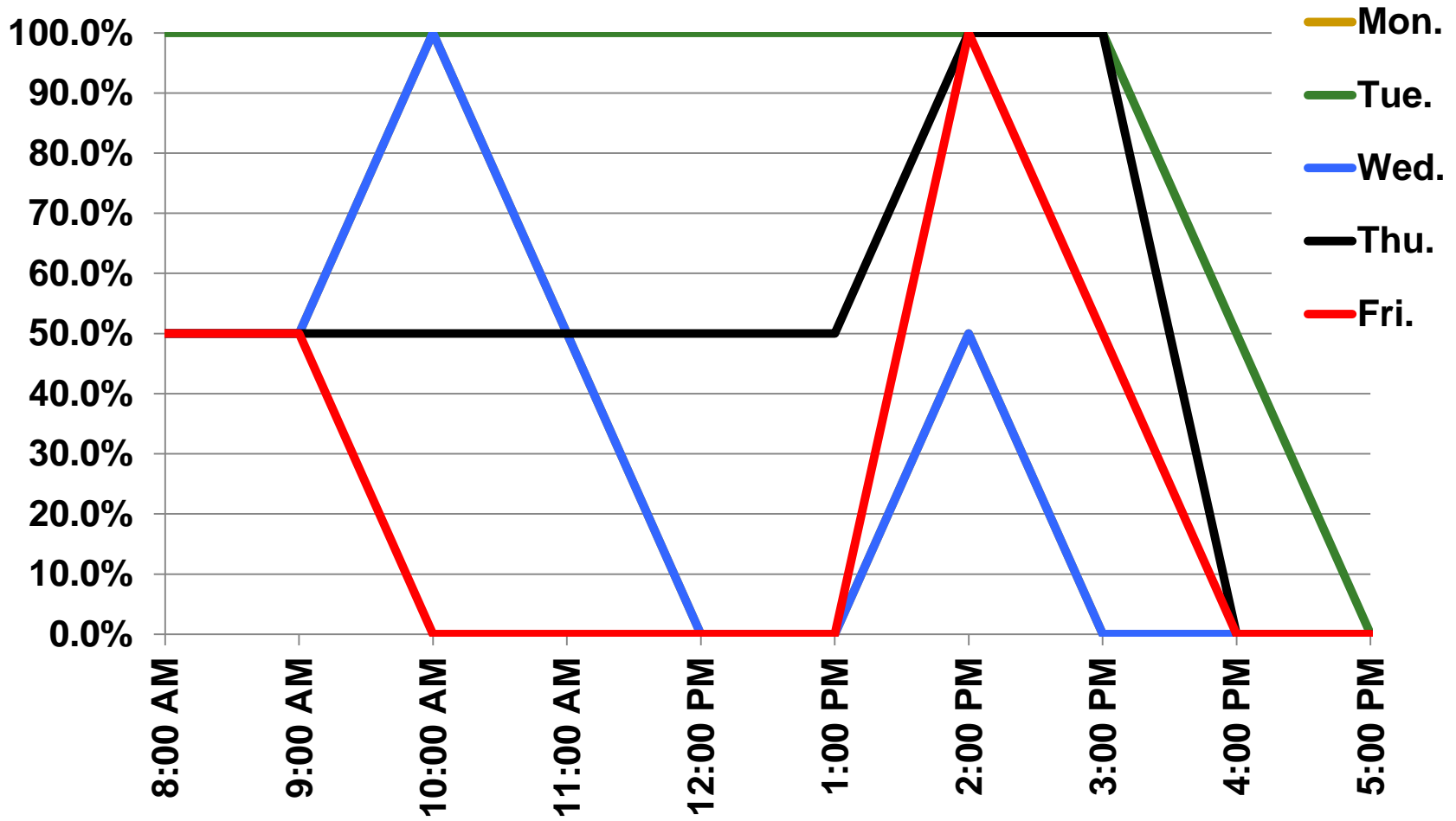
FA12 Dept. Room Utilization

Bin 5: 76-100, 4 Rooms



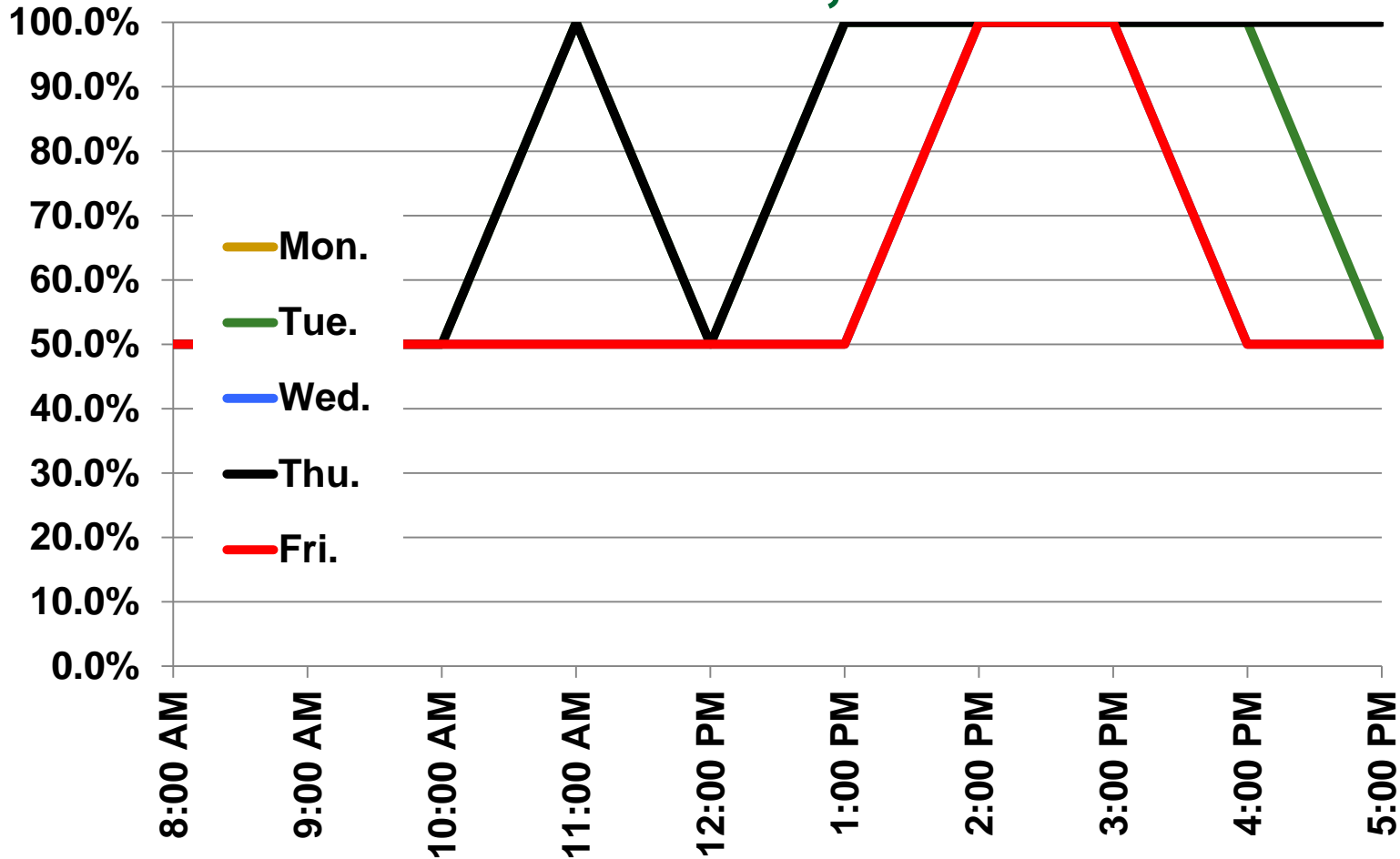
FA12 Dept. Room Utilization

Bin 6: 101-150, 2 Rooms



FA12 Dept. Room Utilization

Bin 7: 151-250, 2 Rooms



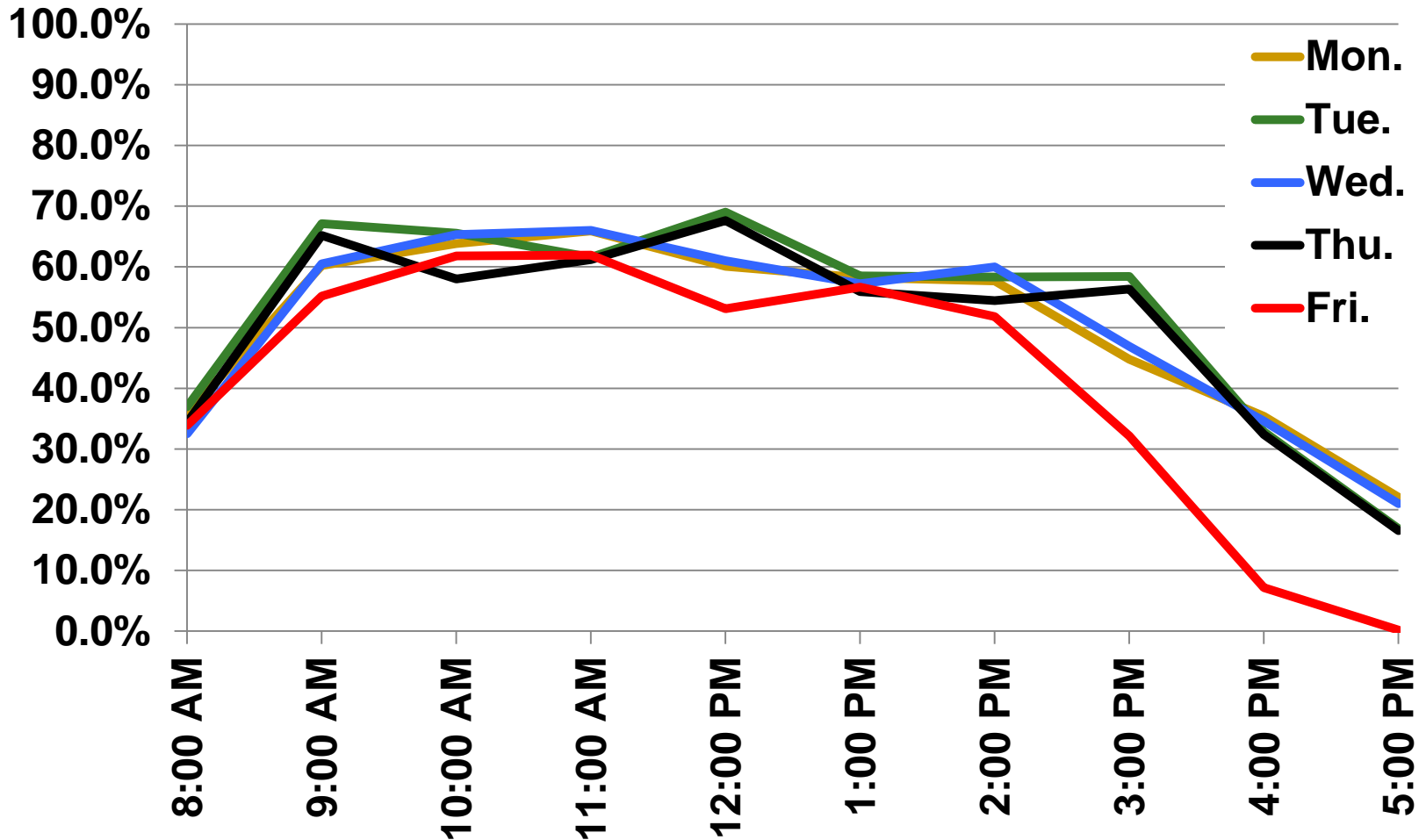
CLASSROOM SEAT OCCUPANCY



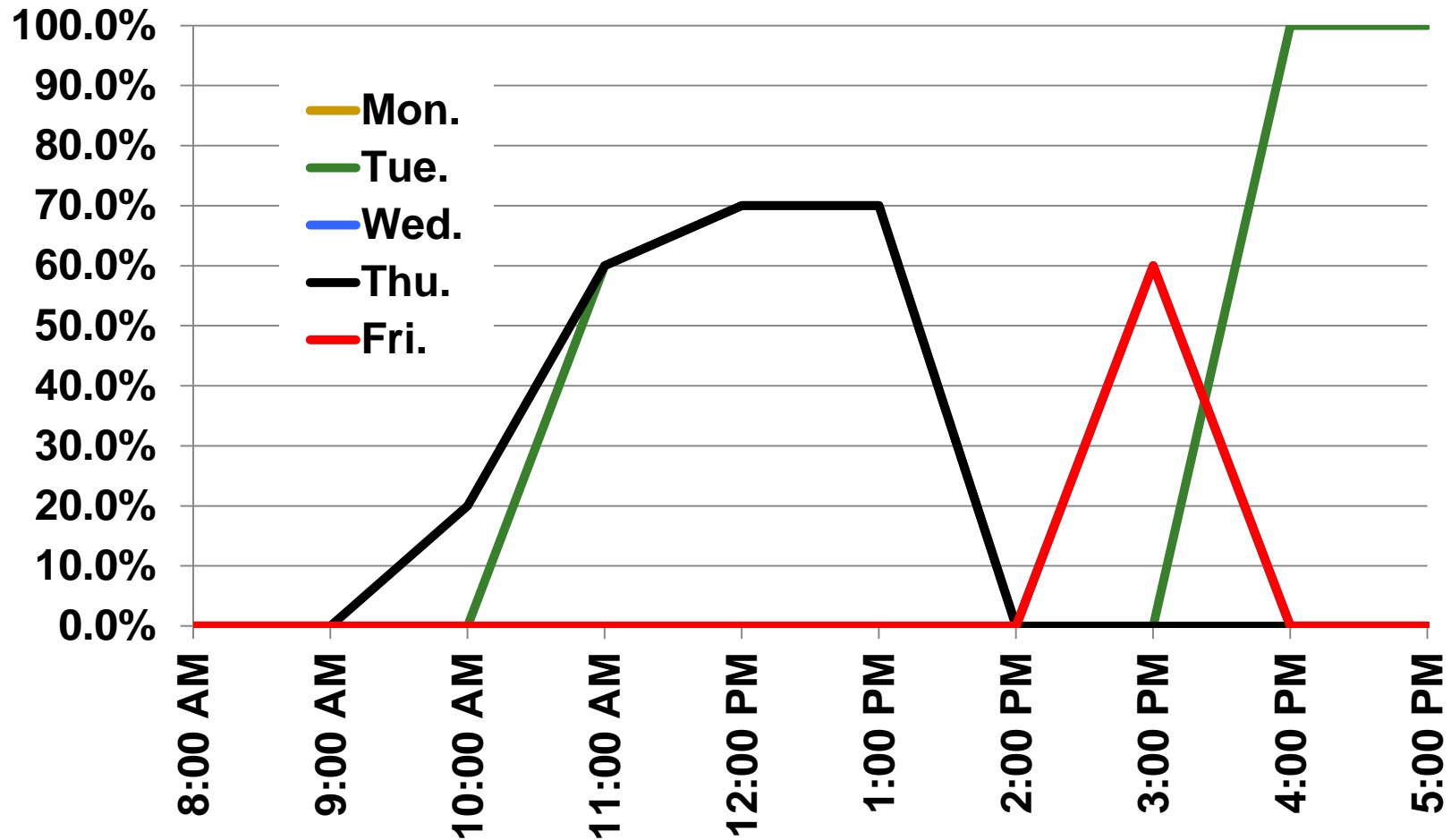
Framework

- Recall occupancy = % of seats occupied
- ‘Sliced’ by
 - Size of classroom
 - Small: 1-30 seats
 - Medium: 31-100 seats
 - Large: > 100 seats
 - Type of Classroom
 - Departmental
 - General Assignment

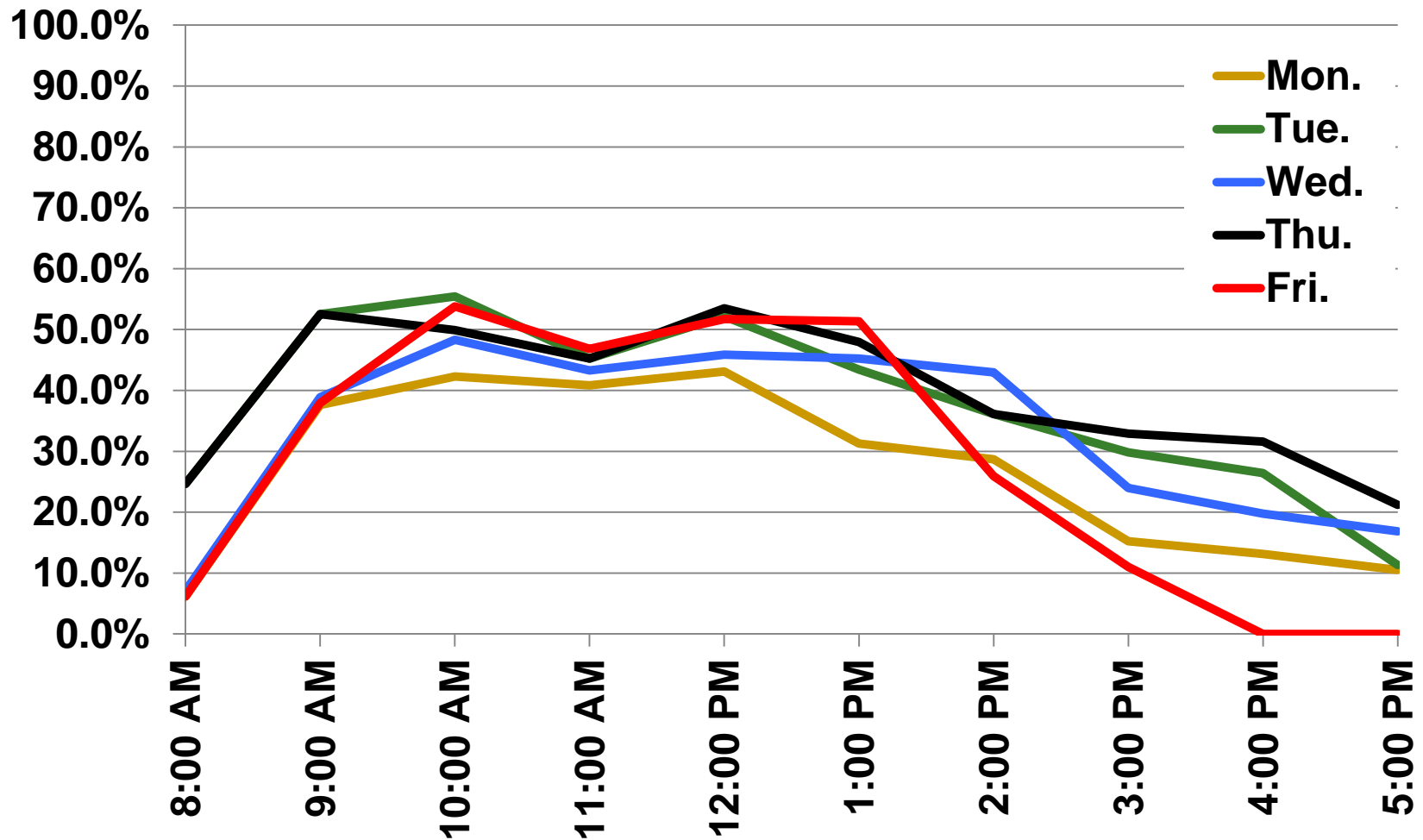
FA12 GA Occupancy, All Rooms (160 Rooms, 19,467 Seats)



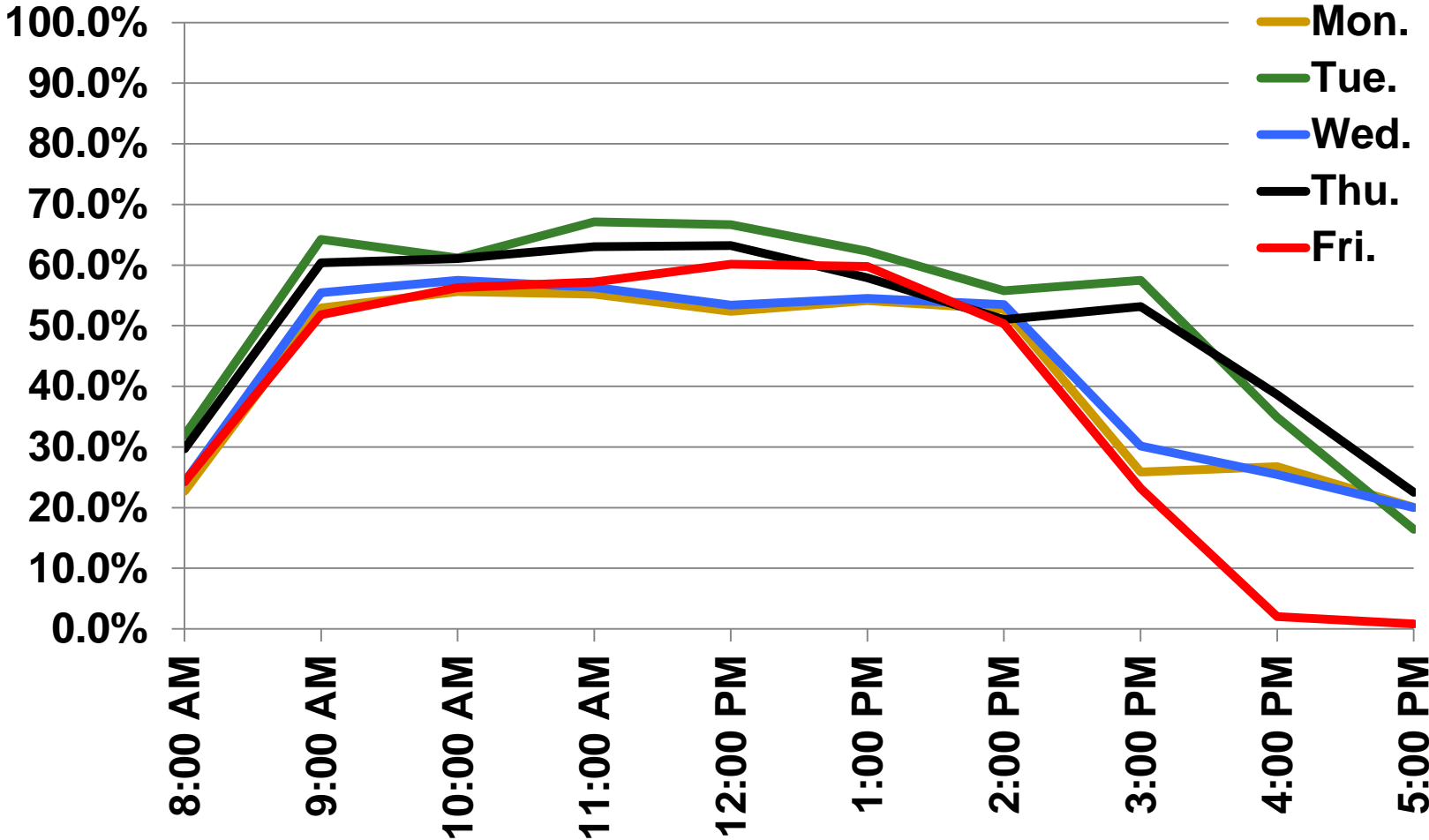
FA12 GA Occupancy, Bin 1: 1-10 (1 Room, 10 Seats)



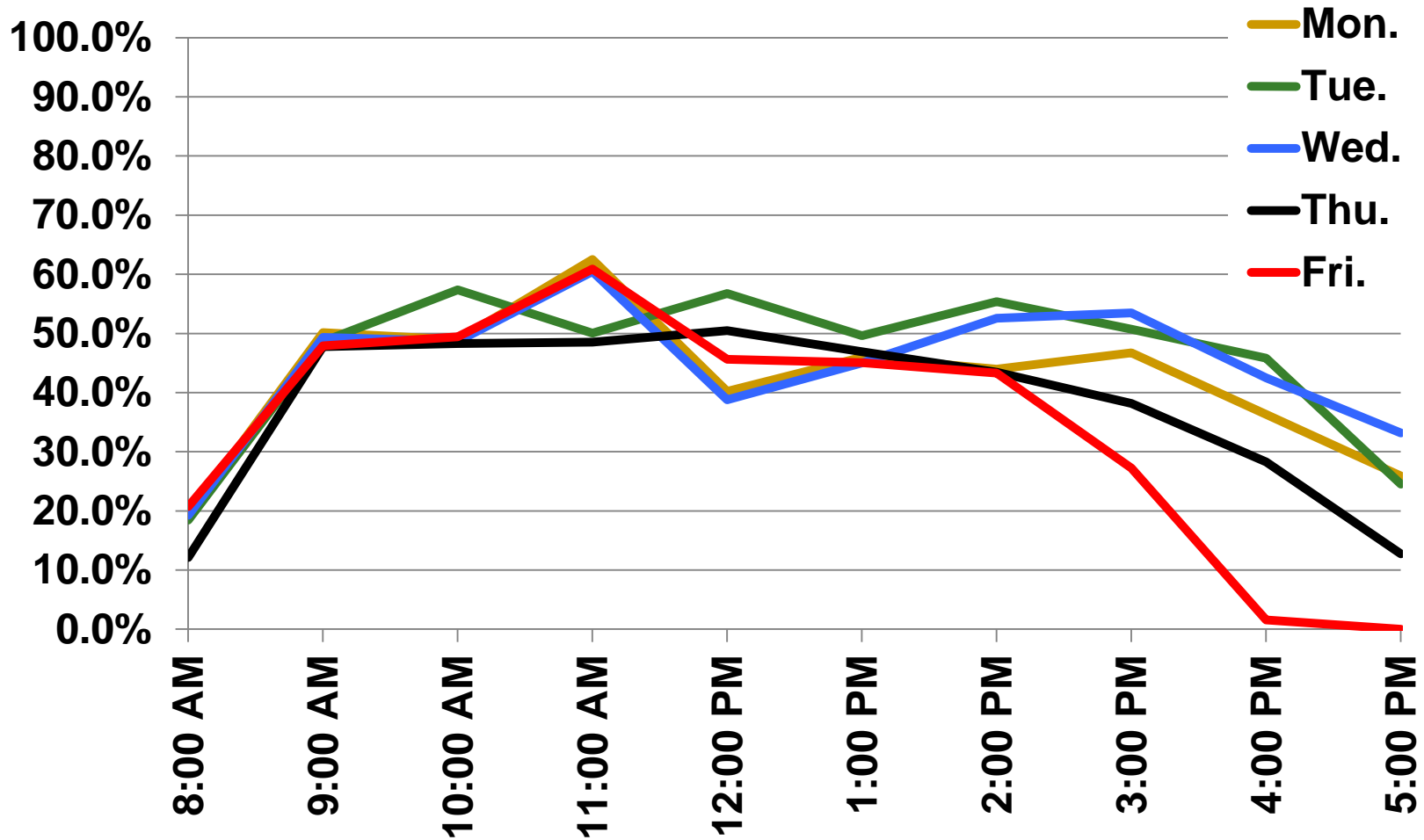
FA12 GA Occupancy, Bin 2: 11-30 (23 Rooms, 617 Seats)



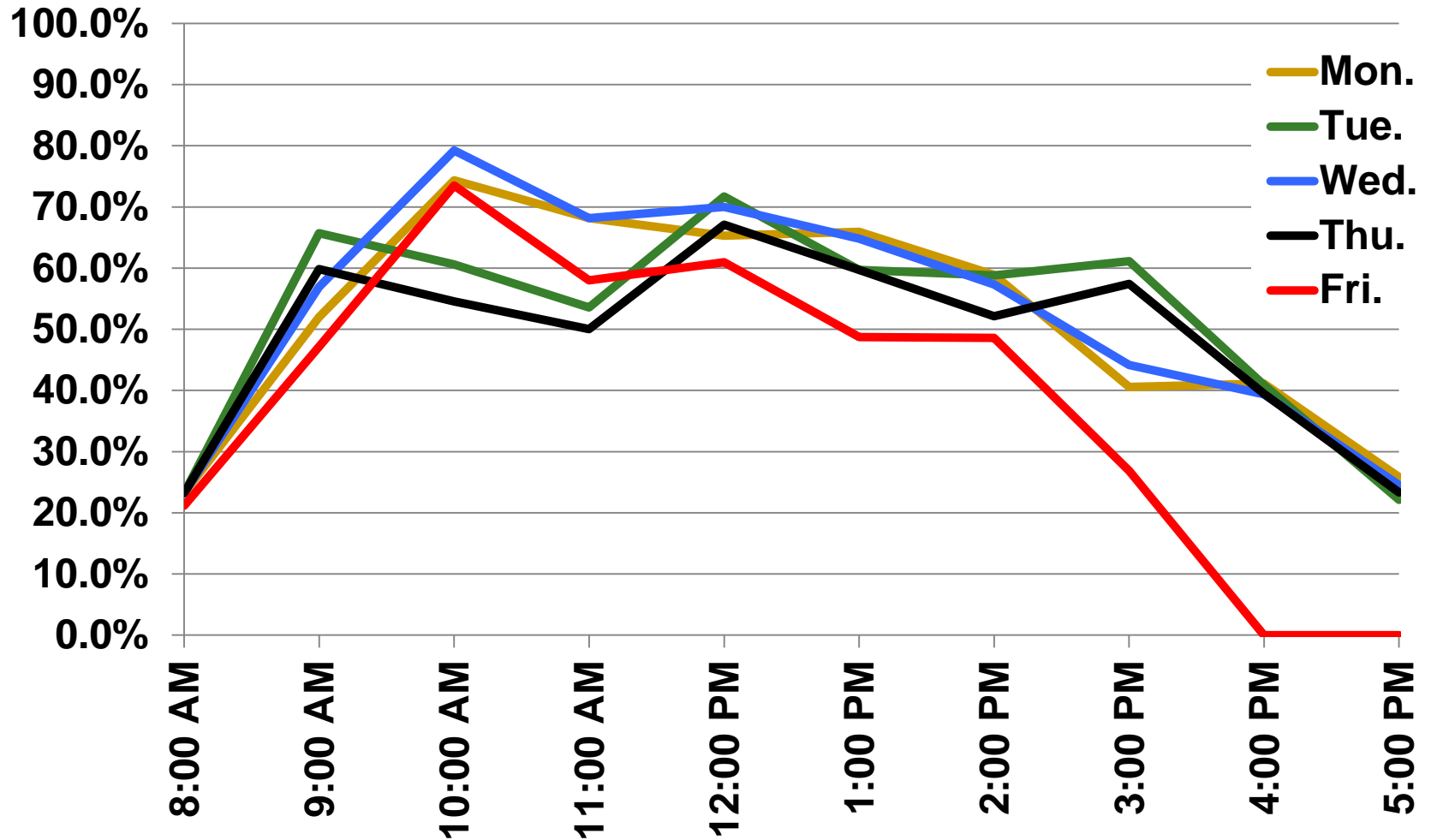
FA12 GA Occupancy, Bin 3: 31-50 (63 Rooms, 2,591 Seats)



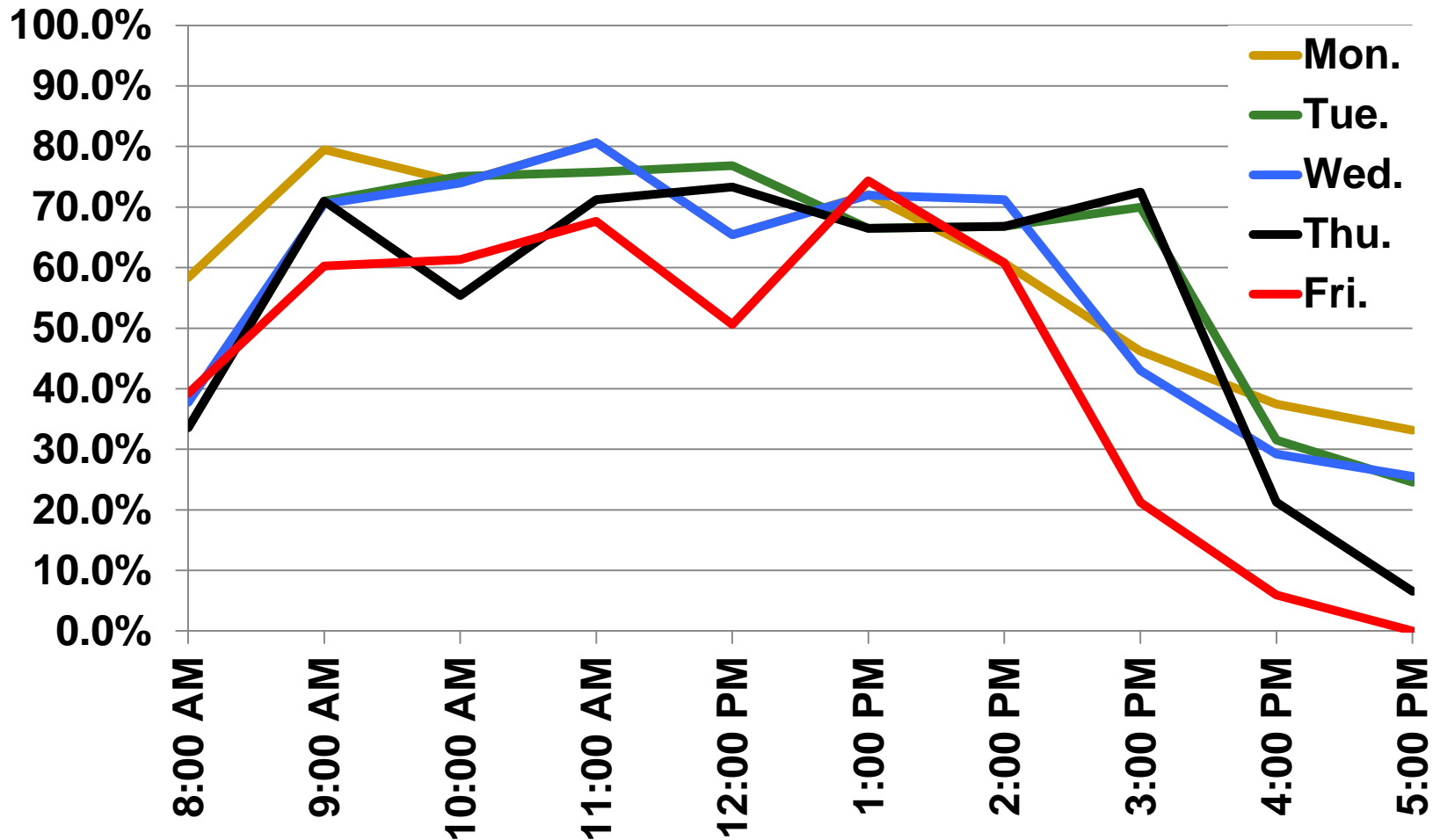
FA12 GA Occupancy, Bin 4: 51-75 (27 Rooms, 1,642 Seats)



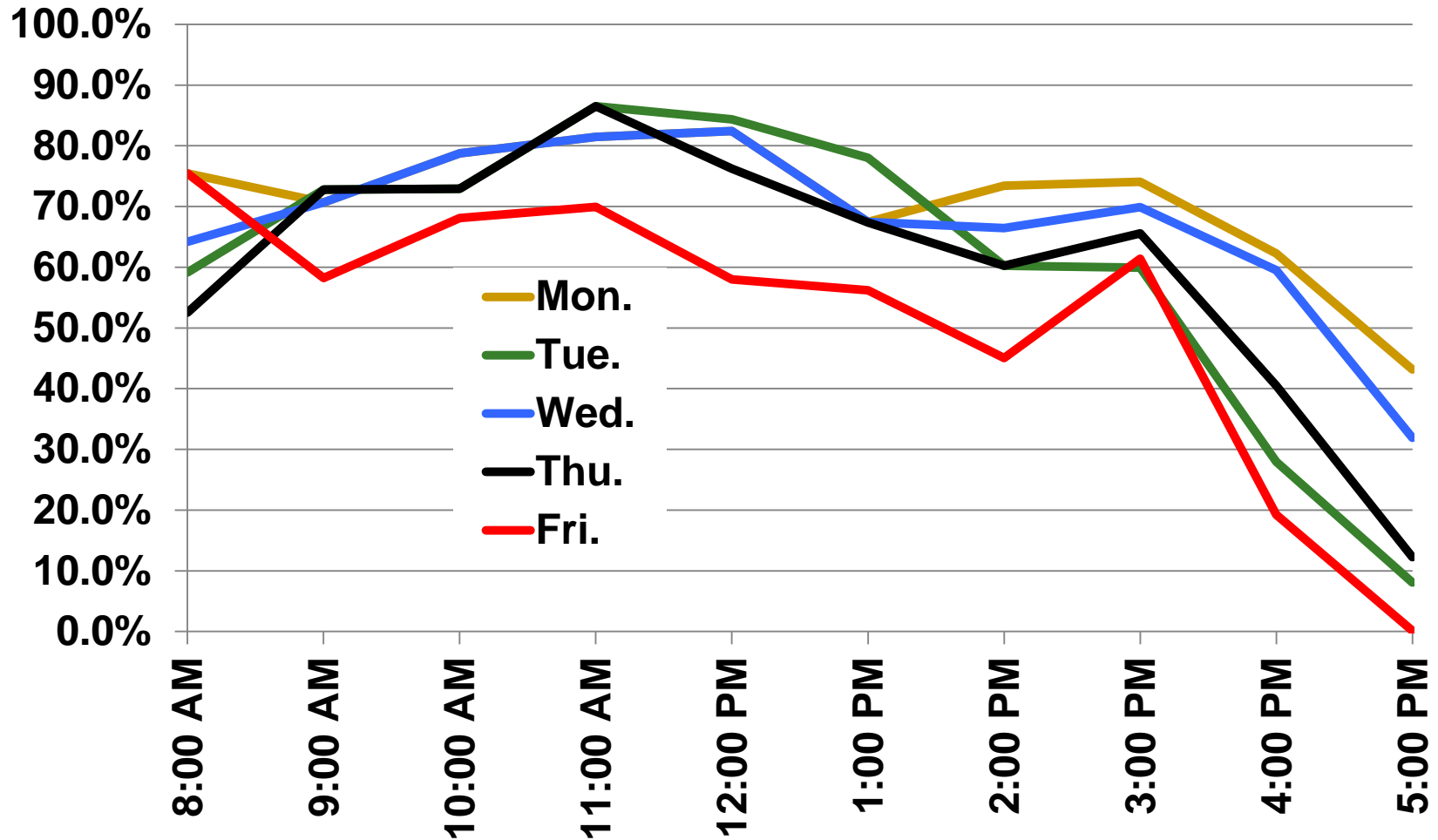
FA12 GA Occupancy, Bin 5: 76-100 (20 Rooms, 1,819 Seats)



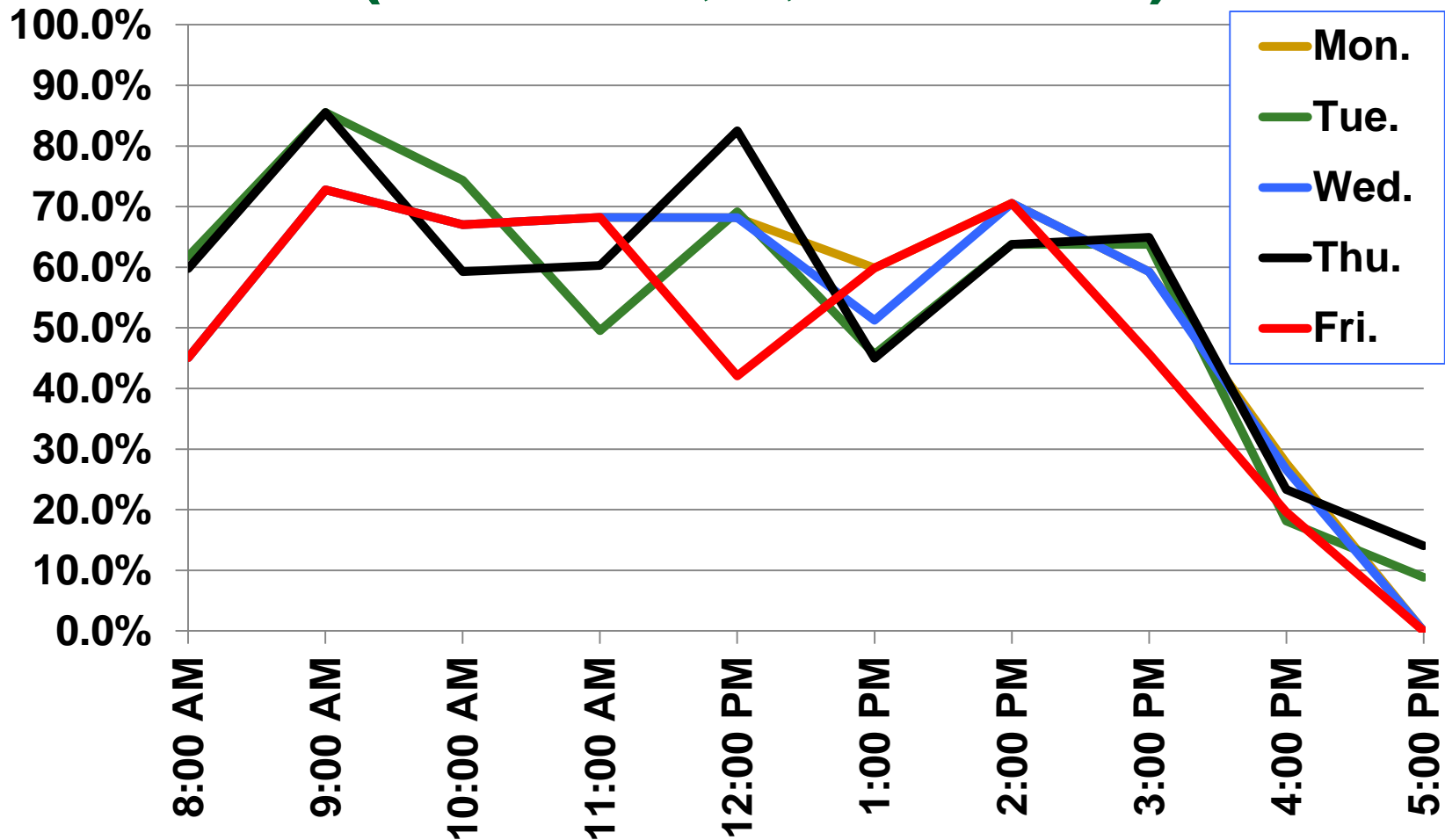
FA12 GA Occupancy, Bin 6: 101-150, (8 Rooms, 1,316 Seats)



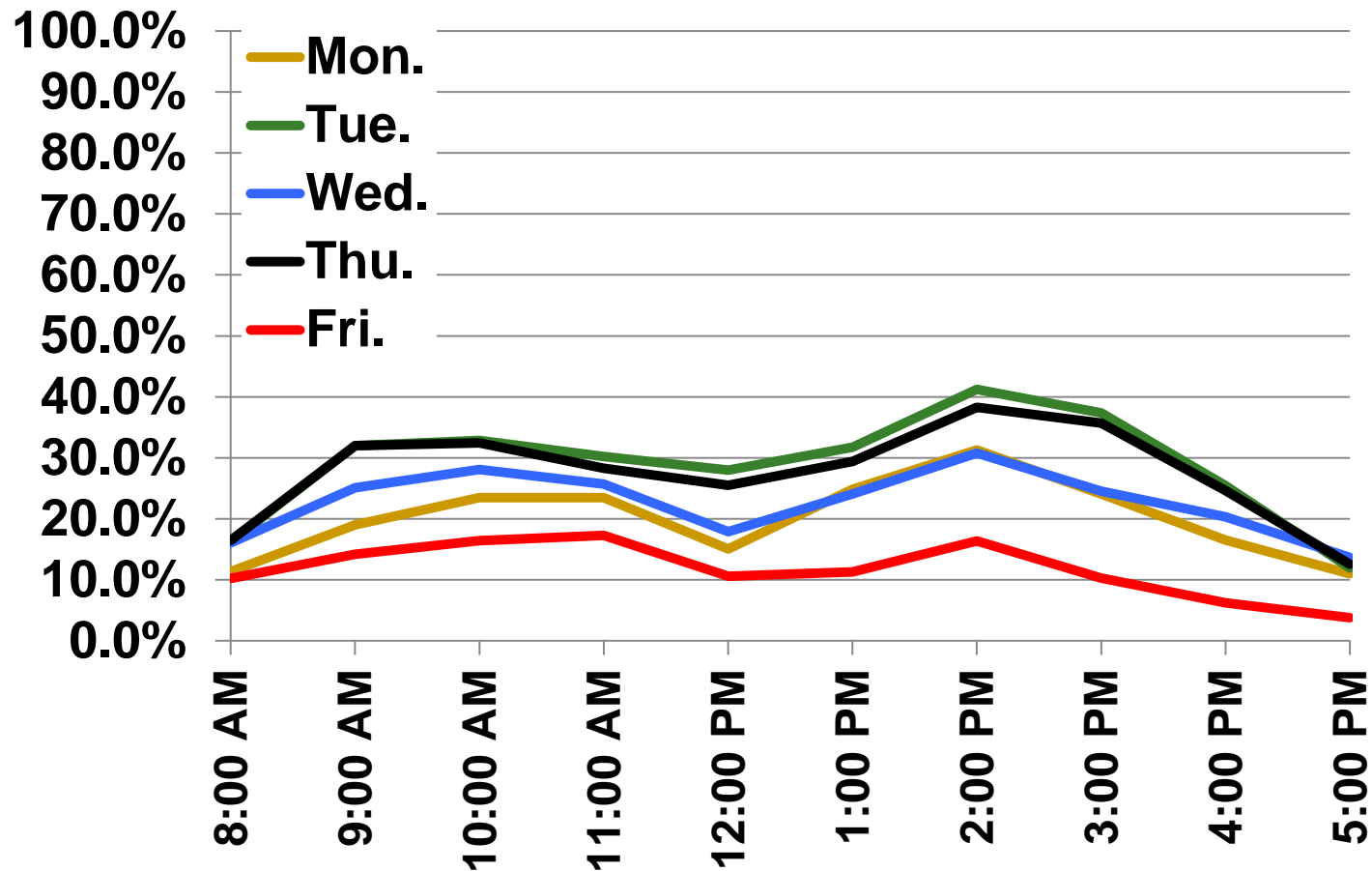
FA12 GA Occupancy, Bin 7: 150-250 (7 Rooms, 1,388 Seats)



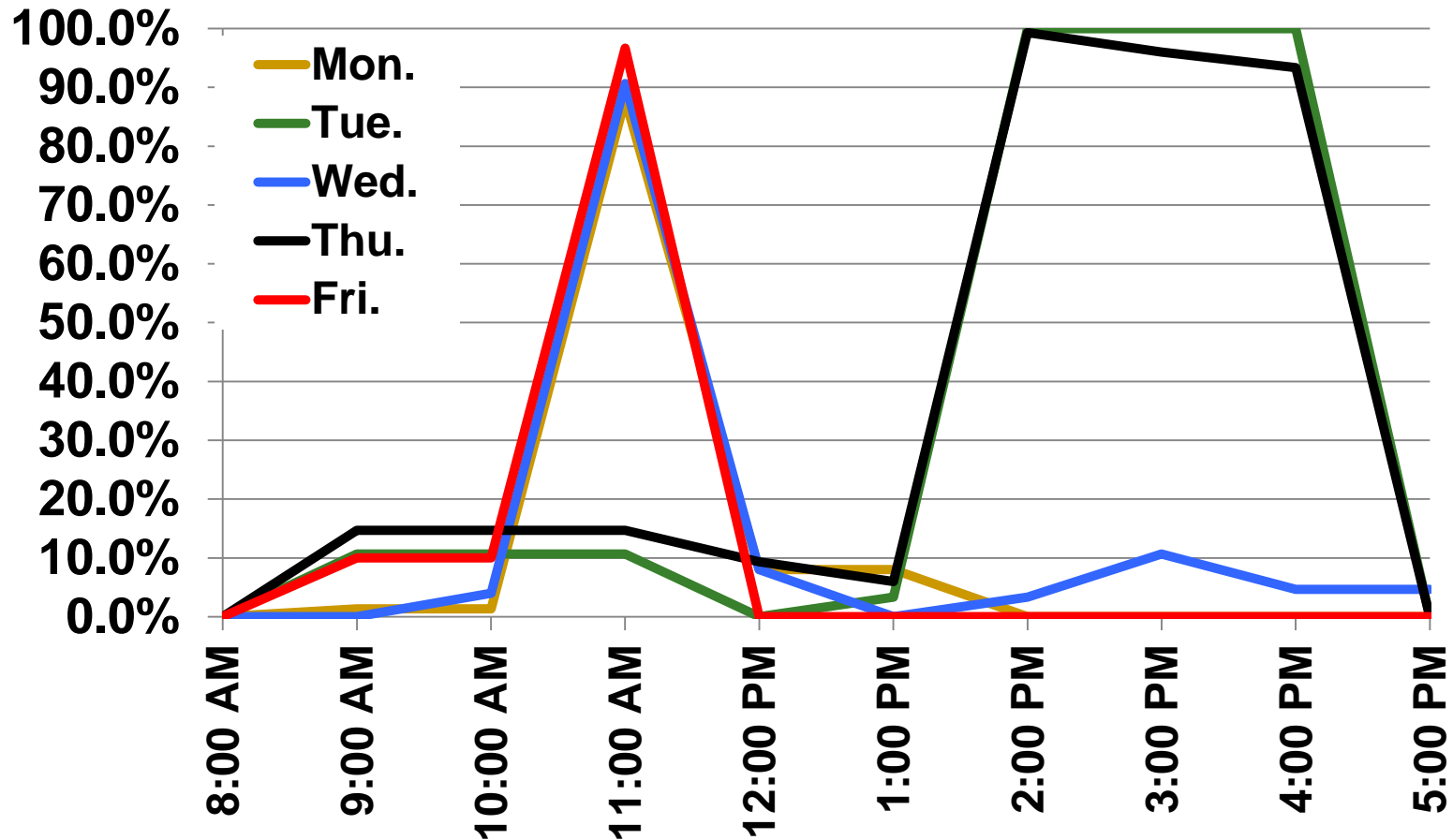
FA12 GA Room, Bin 8: >250 (7 Rooms, 2,054 Seats)



Dept. Occupancy, All Rooms (269 rooms, 8,070 seats)

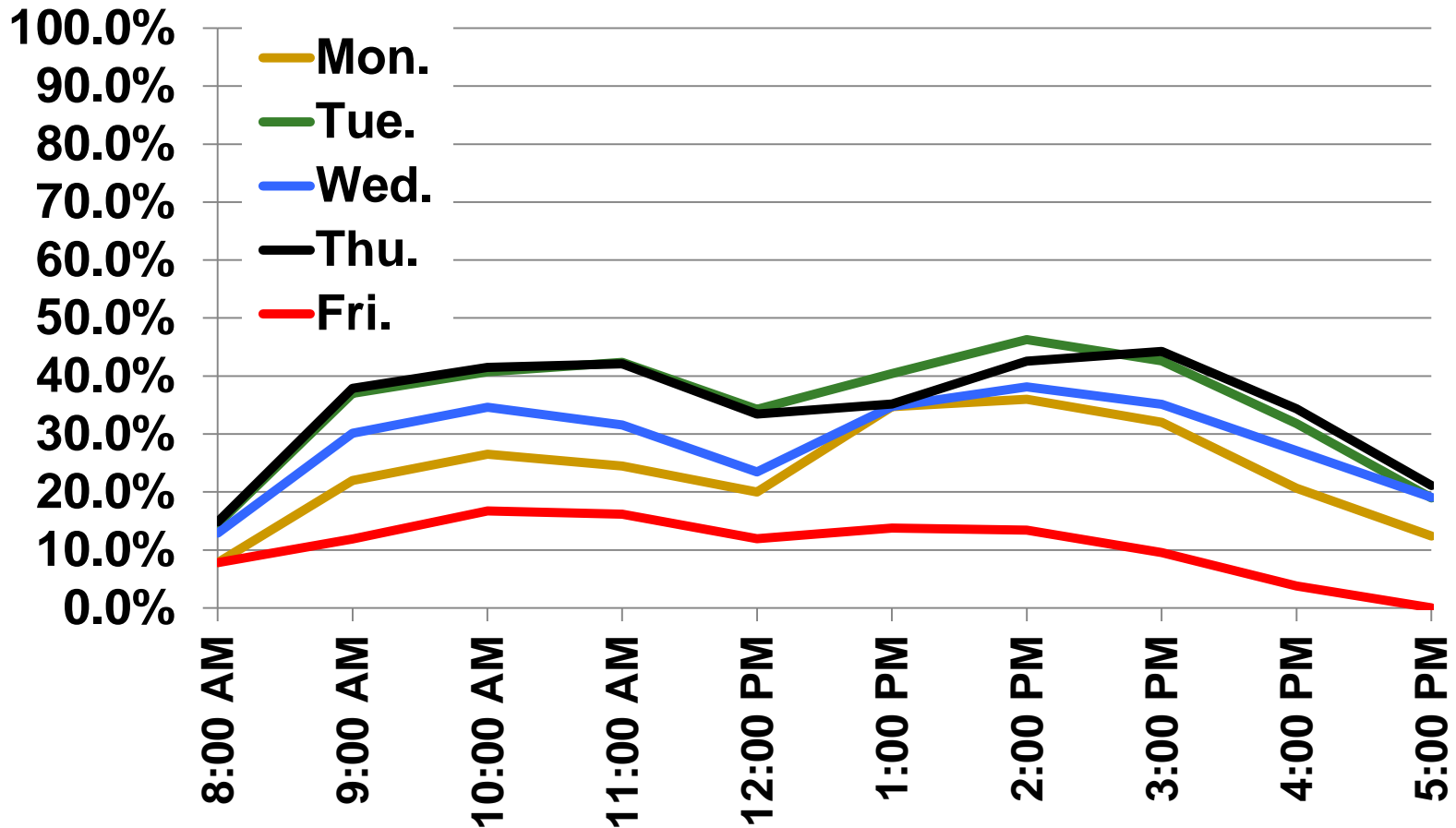


Dept. Occupancy, Bin 1: 1-10 (26 rooms, 150 seats)

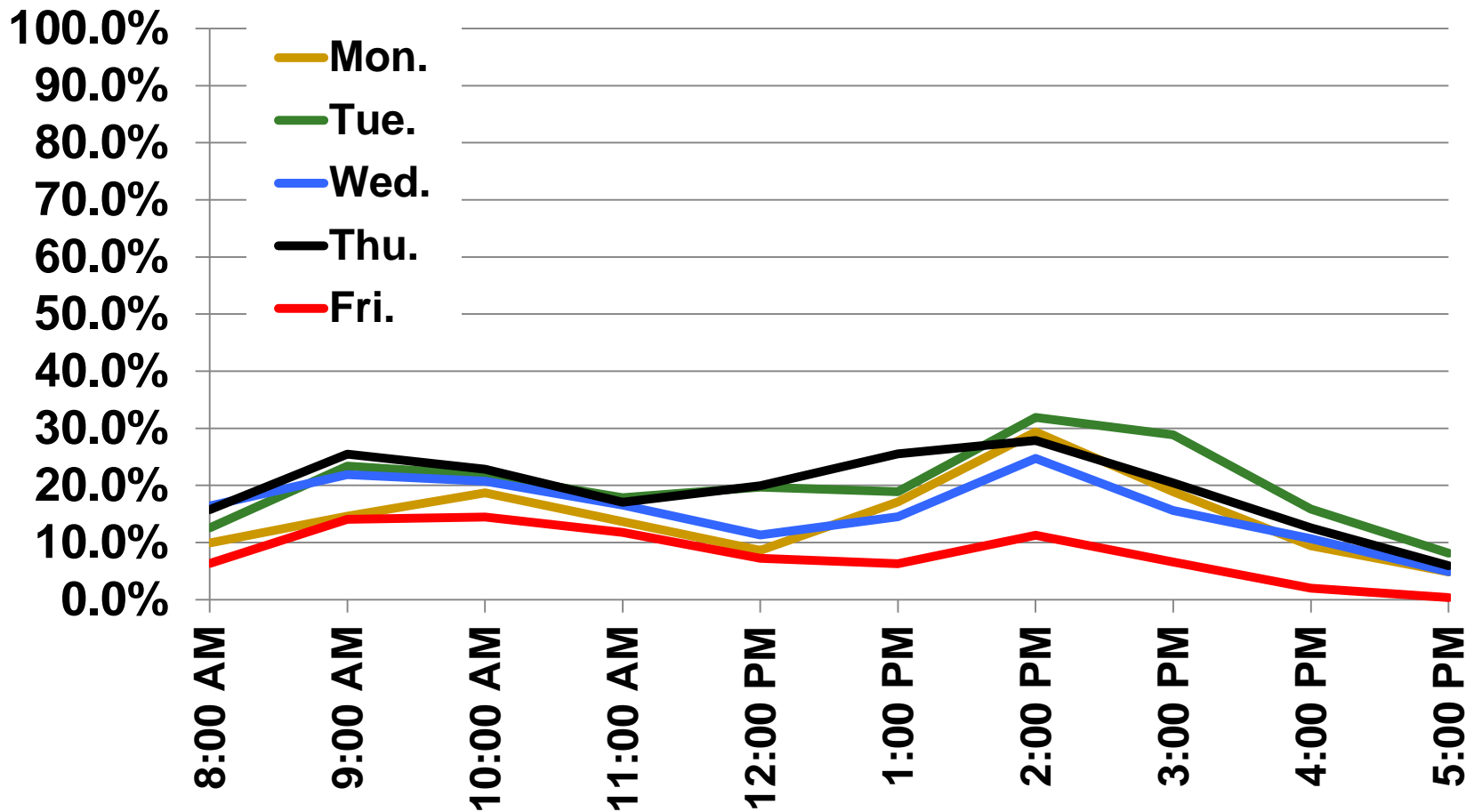


Dept. Occupancy, Bin 2: 11-30

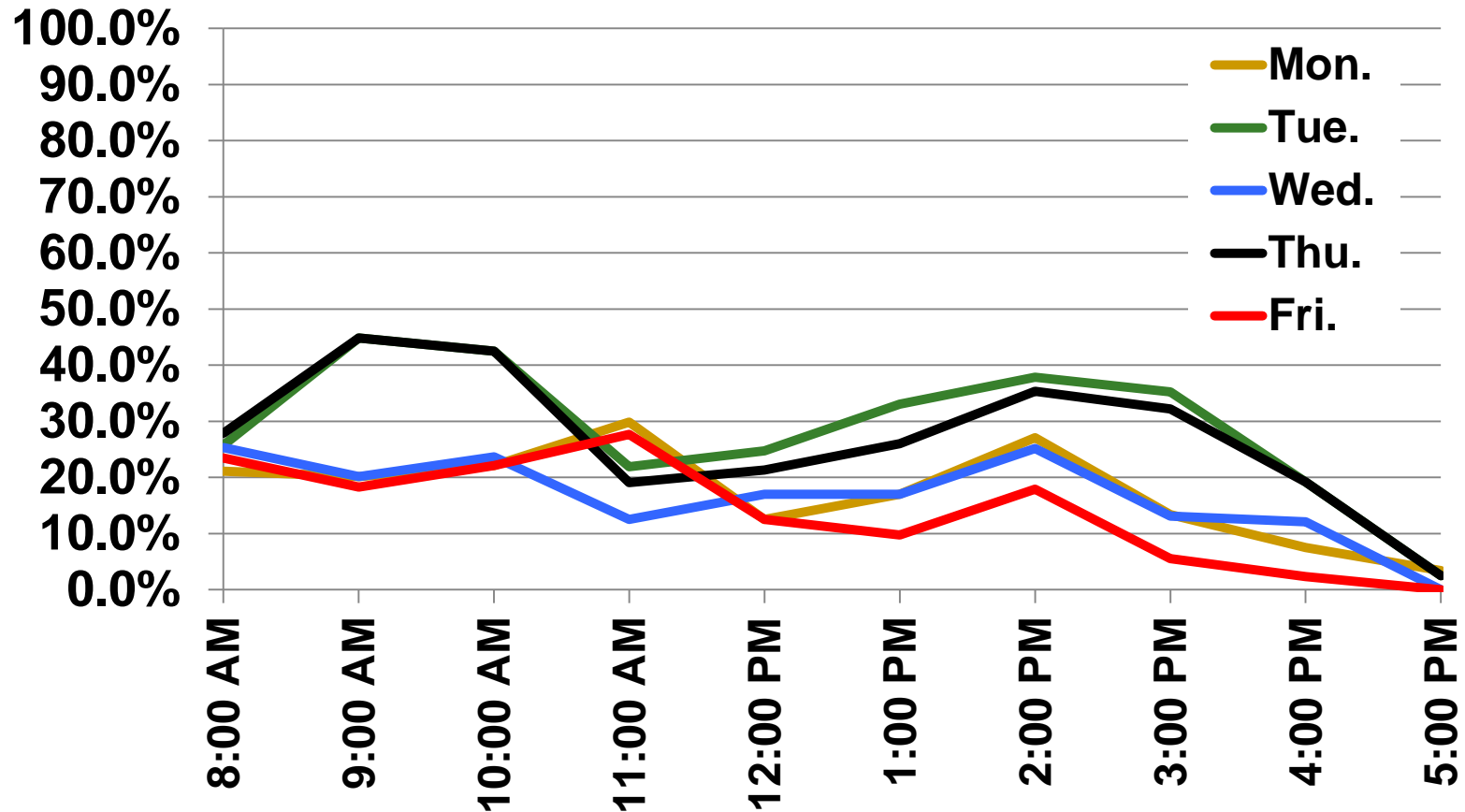
(160 rooms, 3,558 seats)



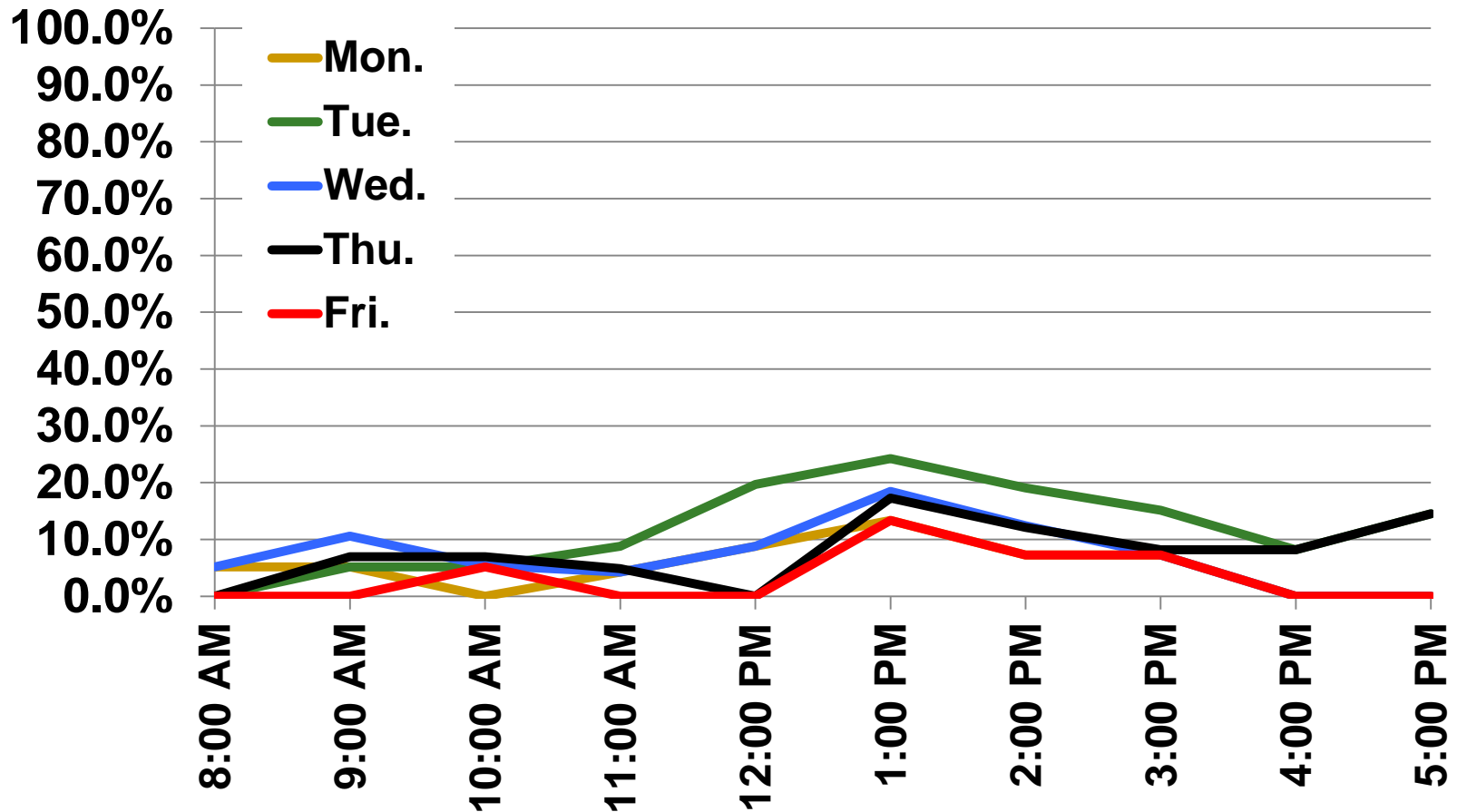
Dept. Occupancy, Bin 3: 31-50 (61 rooms, 2,517 seats)



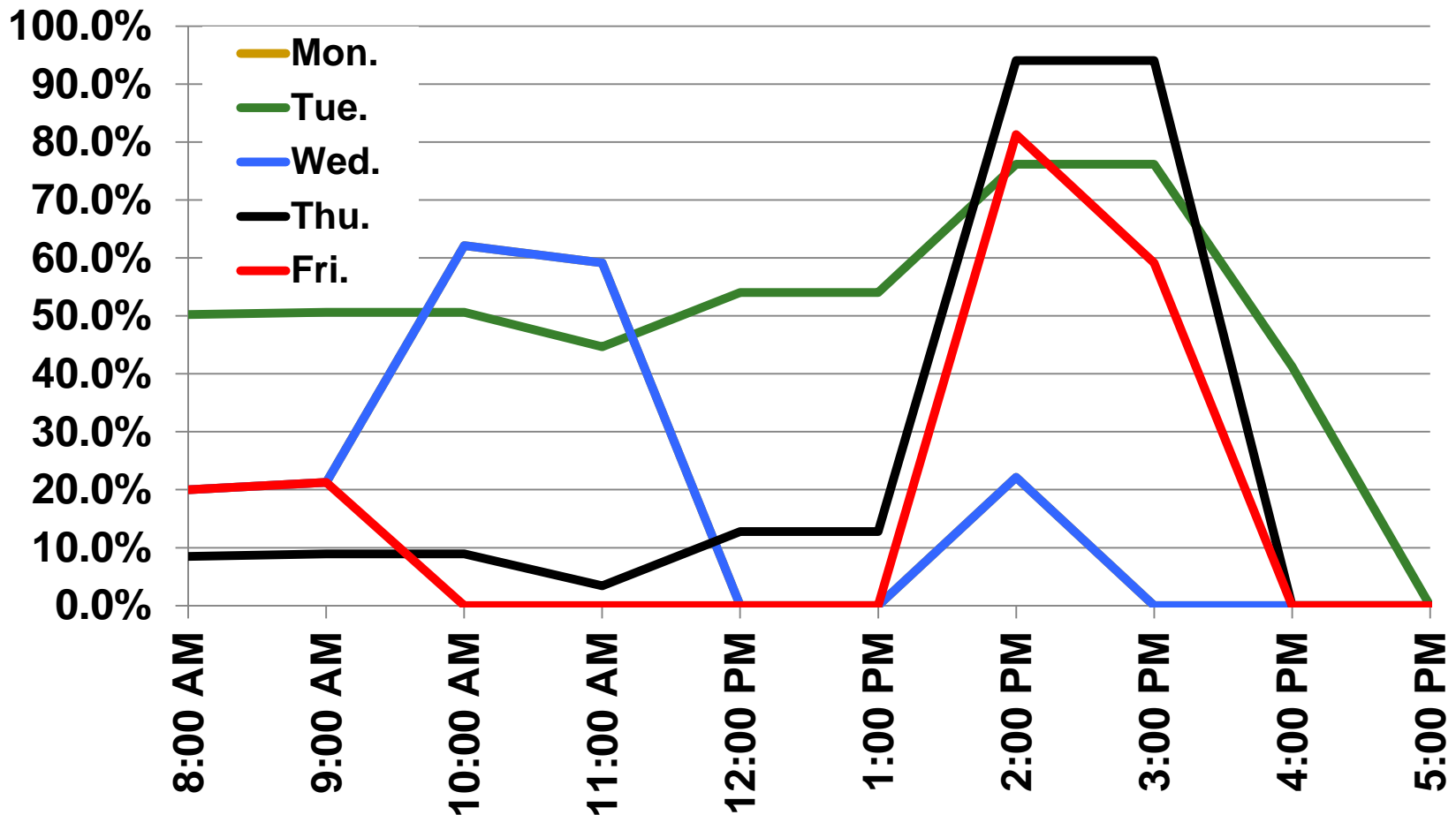
Dept. Occupancy, Bin 4: 51-75 (14 rooms, 854 seats)



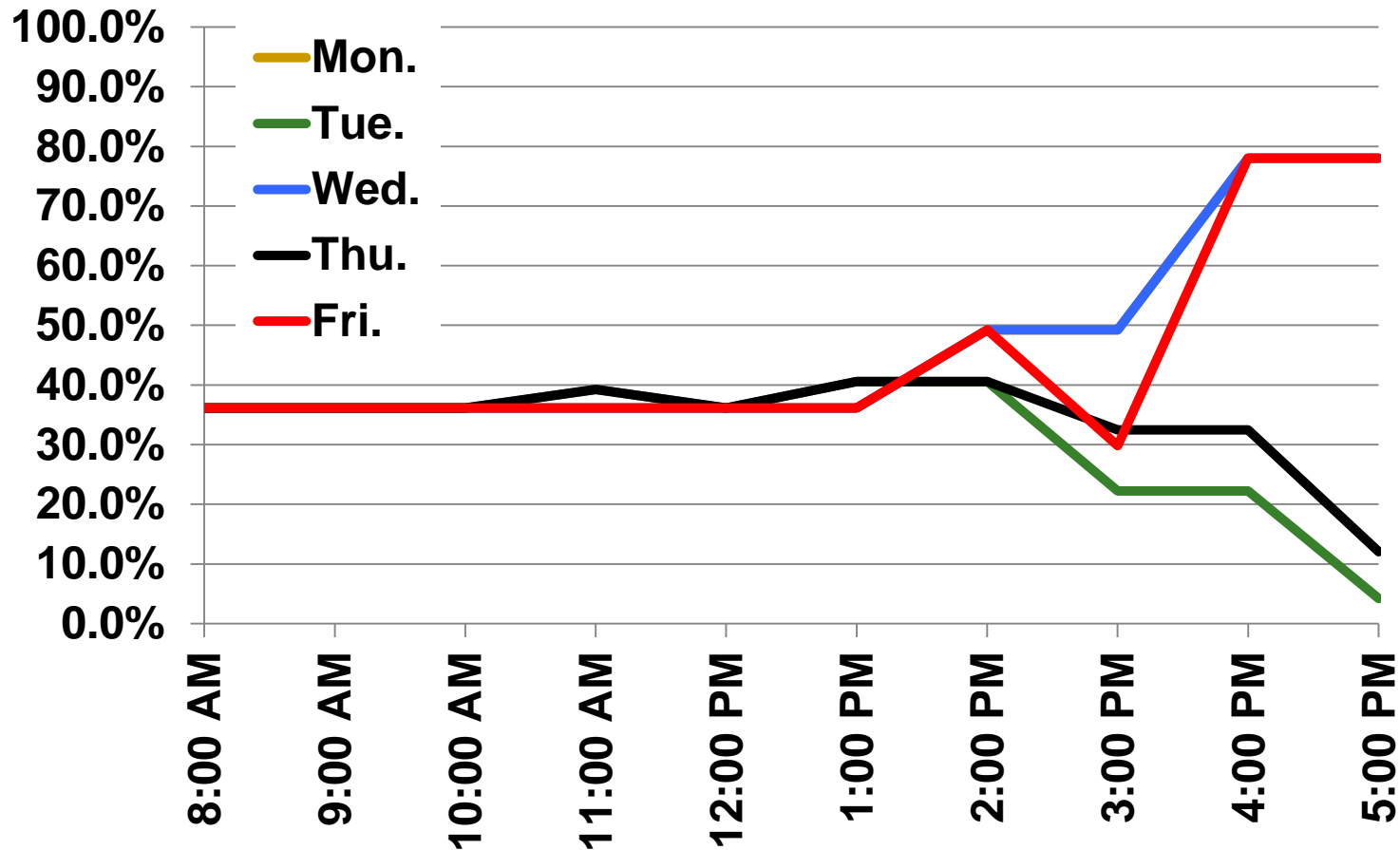
Dept. Occupancy, Bin 5: 76-100 (4 rooms, 330 seats)



Dept. Occupancy, Bin 6: 101-150 (2 rooms, 235 seats)



Dept. Occupancy, Bin 7: 151-200 (2 rooms, 382 seats)



Discussion

- ARIES now has section 'wait list' capability
 - Virtues extolled by students
- There seems to be available capacity
 - To fill seats more fully
 - To use more classrooms
- Housing has vacant dining halls available that could be retrofit into large classrooms

Questions

- Are more than welcome