Inviting SUE to the Community College

Amanda Clark, Ed.D.

Blinn College

What is SUE?

- SUE=Space Usage Efficiency
  - Score calculated to measure classroom and class lab utilization at Texas Public Universities
  - Calculated using data from the CBM011, CBM005,CBM004 reports submitted to the THECB
- 75 = score required for each classrooms and labs considered to have met the standard for space usage efficiency
- 150= total score required for classrooms and labs to be considered meeting the standard
- Scores are used by THECB to determine whether a building project on a given campus should be considered
- Calculated using a combination of demand, utilization, and percent of fill

CBM011 and CBM005

- Reports required only by public universities
- CBM011=Facilities Room Inventory Report- annual report; includes buildings and rooms along with primary CIP code usage, designation of room types, and student capacity of each room
- CBM005=Building and Room Report-annual report; includes building and room assignment information as of the census date for each fall semester and includes course information, enrollment, duration of class meetings, number of days the course meets each week, and room assignment information

Blinn College

- First county owned Junior college in Texas; opened in 1883
- Fall 2014 enrollment=over 19,300
- Software used
  - Ellucian Banner-ERP
  - Ellucian ODS
  - Oracle Discoverer and SQL Server-Reporting tools
  - Ad Astra-Scheduling software undergoing implementation

Gathering the Data

- No delivered process for creating the CBM011 in Banner
- Delivered process for creating the CBM005, but it is not setup at Blinn College
- SQL query
  - Data items from ODS/Banner
  - Uploaded tables from Excel into SQL
    - Room capacity data from four sources-Banner, Ad Astra upload files, Facilities Management, phone calls
- Additional calculations in Excel

Special Considerations

- Individual instruction, clinical, or practicum sections
- Courses that are stacked (i.e. courses meeting at the same time in the same location should only be counted one time with the appropriate total enrollment)
- Courses offered at non-institution controlled locations (e.g. golf course, off-site dance studio, dual credit courses at a local high school, etc.)
- Courses without formal meeting times

Calculating the SUE score

- Demand=number of hours classes are taught in a given semester; measured in hours per week (HPW)
- Utilization= number of hours classes meets in specific types of rooms (i.e. classroom, lab space, or other space); measured in hours per week (HPW)
- Percent of Fill=total number of students enrolled in a course divided by the total capacity of the room where the course is being taught; measures by percent
- Each of the three calculations is performed for classroom spaces and lab spaces, resulting in six different values.

SUE Scoring

Demand					
Classroom			Class Laboratory		
HPW	Points	Score (weight = 9)	HPW	Points	Score (weight = 9)
45.0 and above	4	36	35.0 and above	4	36
38.0 – 44.9	3	27	30.0 – 34.9	3	27
31.0 – 37.9	2	18	25.0 – 29.9	2	18
Below 31.0	1	9	Below 25.0	1	9
Utilization Rates					
Classroom			Class Laboratory		
HPW	Points	Score (weight = 8)	HPW	Points	Score (weight = 8)
38.0 and above	4	32	25.0 and above	4	32
34.0 – 37.9	3	24	20.0 – 24.9	3	24
30.0 – 33.9	2	16	15.0 – 19.9	2	16
Below 30.0	1	8	Below 15.0	1	8
Percent Fill					
Classroom			Class Laboratory		
Percent of Seats	Points	Score (weight = 8)	Percent of Seats	Points	Score (weight = 8)
65% and above	4	32	75% and above	4	32
55.0% – 64.9%	3	24	65.0% – 74.9%	3	24
45.0 %– 54.9%	2	16	55.0 %– 64.9%	2	16
Below 45.0%	1	8	Below 45.0%	1	8

SUE Scoring

Classroom SUE Scoring

Institution	Demand [42.9] (weight = 9)		Utilization [38.6] (weight = 8)		Percent Fill [70%] (weight = 8)		Total Score
	Points	Score	Points	Score	Points	Score	
University	3	27	4	32	4	32	91

Lab SUE Scoring

Institution	Demand [25.5] (weight = 9)		Utilization [12.8] (weight = 8)		Percent Fill [50%] (weight = 8)		Total Score
	Points	Score	Points	Score	Points	Score	
University	2	18	1	8	2	16	42

Demand

- All data is available in the CBM005. Enrollment totals balanced against the CBM004.
- Data needed=building, room, room type, number of days of week the course meets, start time of the course, duration of the course in minutes
  - Calculate the total number of minutes all classes are taught by multiplying the days of the week field and duration field.
  - Group data by building and room to determine the total number of classrooms (as determined by room type)
  - Divide the total minutes per week by the number of available classrooms to gather the average class demand on actual classrooms
  - Divide the average class demand by 50 to gather the hours per week classrooms are used
- Repeat this calculation for labs by using the room type designations for labs

Demand example

	# classroom	# 110	# 210	# minutes in classrooms	# minutes in 110	# minutes in 210	class demand	HPW class demand	lab demand	lab HPW demand
BN	68	61	12	64,110	57,440	10,905	942.7941	18.85588235	908.75	18.175
BY	118	118	17	235,854	235,854	26,157	1998.763	39.97525424	1538.647	30.77294

Utilization

- All data is available in the CBM005. Nearly identical to the demand calculation but considers only sections of courses taught in specific room types versus all sections taught as in the demand measure.
- Data needed=building, room, room type, number of days of week the course meets, start time of the course, duration of the course in minutes
  - Calculate the total number of minutes of classes taught in classroom spaces by multiplying the days of the week field and duration field.
  - Group data by building and room to determine the total number of classrooms (as determined by room type)
  - Divide the total minutes per week by the number of available classrooms to gather the average class demand on actual classrooms
  - Divide the average class demand by 50 to gather the hours per week classrooms are used
- Repeat this calculation for labs by using the room type designations for labs

Utilization example

	# classroom	# 110	# 210	# minutes in classrooms	# minutes in 110	# minutes in 210	class utilization	class HPW utilization	lab utilization	lab HPW utilization
BN	68	61	12	64,110	57,440	10,905	941.63934	18.8327869	908.75	18.175
BY	118	118	17	235,854	235,854	26,157	1998.76271	39.9752542	1538.647059	30.77294118

Percent Fill

- Data is available on the CBM005 and CBM011
- Data needed=total enrollment, number of days per week, building, room, room type, start time, capacity (CBM011)
  - Calculate total enrollment for each section
  - Multiply total enrollment by number of days per week.
  - Total enrollment per week by building, room, room type, and start time
  - Divide the totals by the capacity of each room
- Results are for classrooms and labs

Percent Fill Example

	# classroom	# 110	# 210	class Capacity	class enrollment	lab capacity	lab enrollment	class % fill	lab % fill
BN	68	61	12	14,741	8,141	1,127	971	55.2%	86.2%
BY	118	118	17	63,031	45,627	5,454	4,381	72.4%	80.3%

Classroom SUE Score example

		Demand	Utilization	Percent Fill	Score
BC	HPW	29.7	29.7	89.9%	
	Points	1	1	4	
	Score	9	8	32	49
BN	HPW	22.7	22.7	83.2%	
	Points	1	1	4	
	Score	9	8	32	49
BY	HPW	36.5	36.5	92.5%	
	Points	2	2	4	
	Score	18	16	32	66
SB	HPW	11.2	11.2	57.0%	
	Points	1	1	3	
	Score	9	8	24	41
SY	HPW	7.24	7.24	64.5%	
	Points	1	1	3	
	Score	9	8	24	41

Modifications and Next Steps

- Examining SUE scores by campus and building
- Considering the number of hours each campus is open versus the standard printed in the SUE guide
- Automating the process-currently very labor intensive and manual
  - Dashboards/scorecards
  - Single source of data for easier updating
- After Ad Astra implementation, comparison of SUE score to schedule optimizer for broader academic buy-in

Questions?

Amanda Clark, Ed.D.
Director, Institutional Research
Blinn College
amanda.clark@blinn.edu