

# 2012 EBI Senior Exit Survey

UW CBE returns: 72/83 (Dec. and May (<sup>w</sup>/August))

Results posted to [assessment.che.wisc.edu](http://assessment.che.wisc.edu) site

UW ABET/EBI factors

Peer comparisons (Q15-88) Select 6, Carnegie, all

Change in Select 6

- Carnegie Mellon U, +Vanderbilt

US News & World Rankings		EBI Senior Exit Survey Select-6 Peer Group							
COE	ChE	School	'12	'11	'10	'09	'08	'07	'06
10	4	UT-Austin	X	X	X	X	X	X	X
20	17	Northwestern Univ	X	X	X	X	X	X	X
9	38	U Southern Cal	X	X	X	X	X	X	
14	54	UC-San Diego	X	X	X	X	X		
15	29	Columbia	X	X					
36	38	Vanderbilt	X						
5	13	Carnegie Mellon U		X	X	X	X	X	X
51		Auburn			X		X	X	X
1	1	MIT				X		X	
2	5	Stanford							X
25	4	Minnesota							X



# 2012 EBI Senior Exit Survey

Select-6 comparisons

#1/7: Chemistry teaching, computer resources, Career Services, Engineering teaching vs. non-Eng., value of investment in program

#7/7: none

Continuing concerns:

Physics – low vs. Chemistry, Math; CoE ongoing issue

ABET a-k grid

Advising – chart improving

Teamwork

Watch from last year:

Concern with quality of education – rising

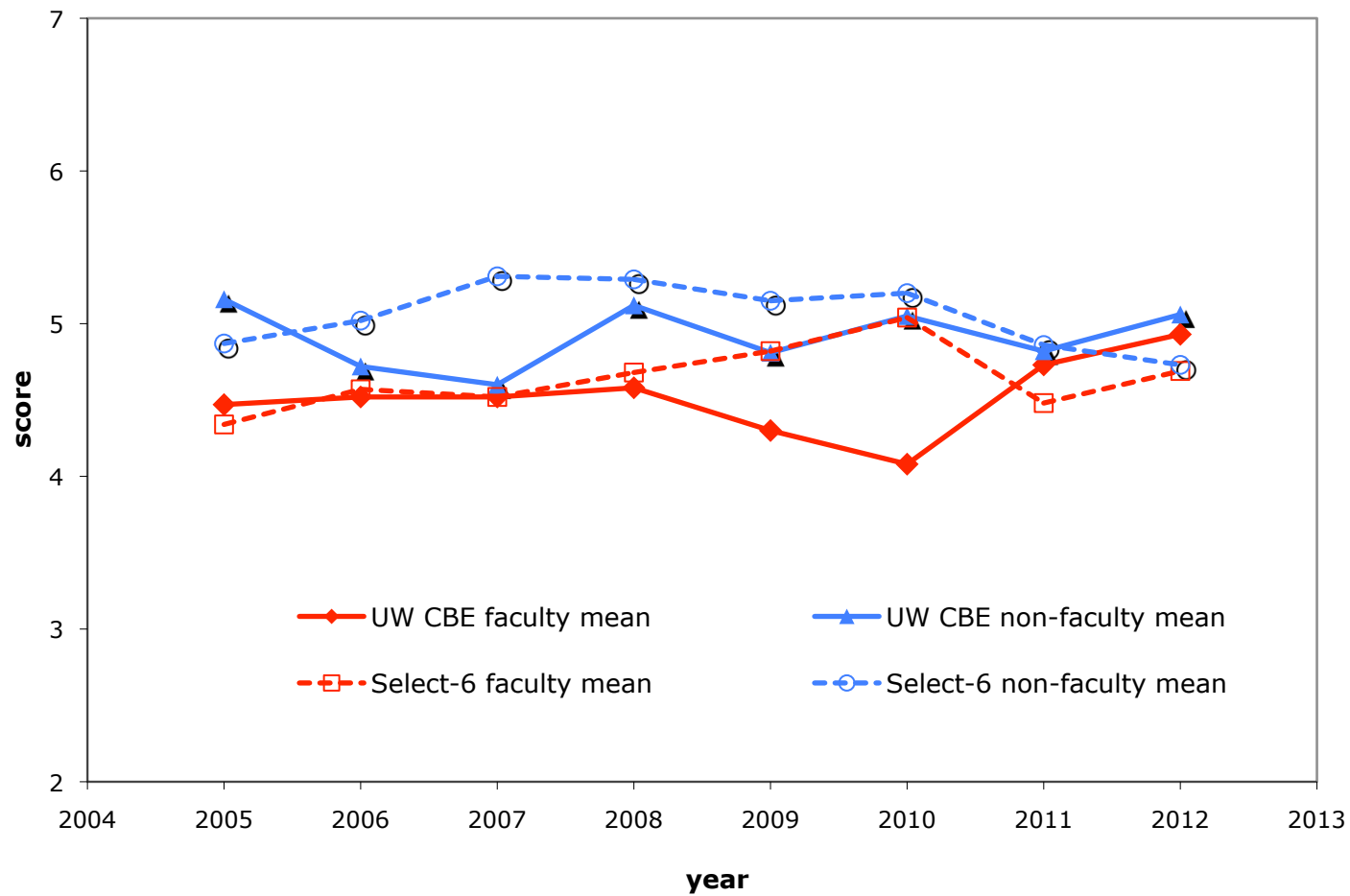
Societal impact : down to 4.8 in 2010, back to 4.96



ABET Outcome	EBI Survey Question		10-11	99 - '11 average	2011-12	change from last year
	<i>To what degree did your engineering education enhance your ability</i>					
A) an ability to apply knowledge of mathematics, science, and engineering	47	apply your knowledge of mathematics	6.21	6.17	6.21	0.00
	48	apply your knowledge of science	6.09	6.06	5.90	-0.19
	49	apply your knowledge of engineering	6.30	6.06	6.28	-0.02
B) an ability to design and conduct experiments, as well as to analyze and interpret data	50	design experiments	5.55	5.34	5.60	0.05
	51	conduct experiments	5.84	5.84	5.86	0.02
	52	analyze and interpret data	6.29	6.23	6.21	-0.08
C) an ability to design a system, component, or process to meet desired needs	53	design a system, component, or process to meet desired needs	5.72	5.57	5.79	0.07
D) an ability to function on multi-disciplinary teams	40	satisfaction with characteristics of your fellow students ability to work in teams	5.66	5.63	5.57	-0.09
	54	Function in multidisciplinary teams	5.29	5.36	5.54	0.25
E) an ability to identify, formulate, and solve engineering problems	56	Identify engineering problems	5.45	5.79	5.62	0.17
	55	formulate engineering problems	5.70	5.61	5.86	0.16
	57	solve engineering problems	5.96	6.14	6.17	0.21
F) an understanding of professional and ethical responsibility	58	understand ethical responsibility	4.74	4.68	5.10	0.36
G) an ability to communicate effectively	60	communicate using oral progress reports	5.01	5.03	5.03	0.02
	61	communicate using written progress reports	5.80	5.79	5.90	0.10
	70	use text materials to support project design	5.57	5.44	5.49	-0.08
H) the broad education necessary to understand the impact of engineering solutions in a global and societal context	71	understand the impact of engineering solutions in a global/societal context	4.89	4.64	4.96	0.07
I) a recognition of the need for, and an ability to engage in life long learning	62	recognize need to engage in life long learning	5.87	5.61	5.64	-0.23
J) a knowledge of contemporary issues	63	understand contemporary issues	5.03	5.02	5.07	0.04
K) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	64	use modern engineering tools	5.59	5.42	5.83	0.24
average			5.63	5.57	5.68	0.05

# Advising

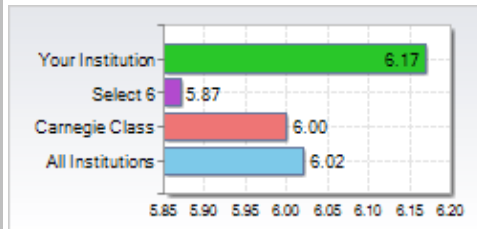
**EBI Advising Ratings**





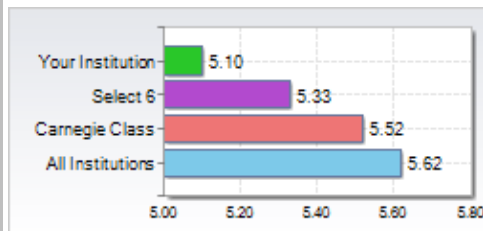
# High and Low Scores

## 57. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Solve engineering problems



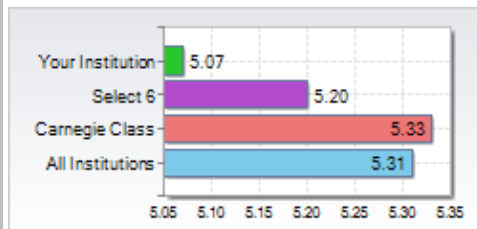
	N	Mean	Std Dev				
Your Institution	72	6.17	0.85				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	209	5.87	1.13	5	6.23	0.30	2 of 7
Carnegie Class	660	6	1.04	5	6.46	0.17	8 of 24
All Institutions	1079	6.02	1	5	6.85	0.15	14 of 39

## 58. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand ethical responsibilities



	N	Mean	Std Dev				
Your Institution	71	5.1	1.44				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	209	5.33	1.51	3.89	6.25	-0.23	4 of 7
Carnegie Class	661	5.52	1.4	3.89	6.25	-0.42	17 of 24
All Institutions	1076	5.62	1.35	3.89	6.53	-0.52	31 of 39

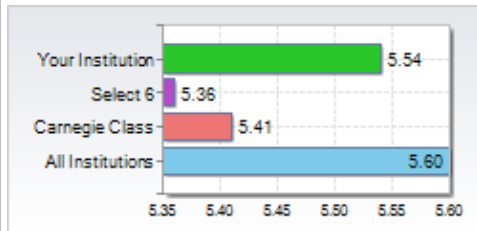
## 63. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Understand contemporary issues



	N	Mean	Std Dev				
Your Institution	72	5.07	1.26				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	207	5.2	1.5	4.05	5.88	-0.13	5 of 7
Carnegie Class	651	5.33	1.38	4.05	5.88	-0.26	22 of 24
All Institutions	1061	5.31	1.35	4.05	6.23	-0.24	35 of 39

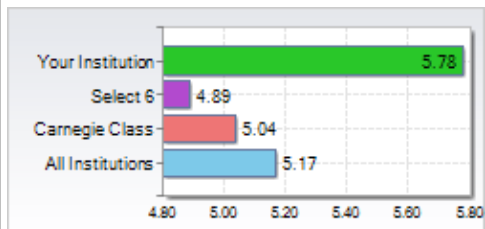
# Course Availability

## 32. Satisfaction with: Average size of major courses



	N	Mean	Std Dev				
Your Institution	72	5.54	1.15				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	211	5.36	1.46	4.93	6.21	0.18	2 of 7
Carnegie Class	671	5.41	1.38	4.64	6.5	0.13	10 of 24
All Institutions	1096	5.6	1.33	4.64	6.8	-0.06	21 of 39

## 33. Satisfaction with: Availability of courses in your major



	N	Mean	Std Dev				
Your Institution	72	5.78	1.18				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	212	4.89	1.74	4.39	5.83	0.89	2 of 7
Carnegie Class	673	5.04	1.69	3.67	6.43	0.74	4 of 24
All Institutions	1097	5.17	1.63	3.67	6.43	0.61	8 of 39

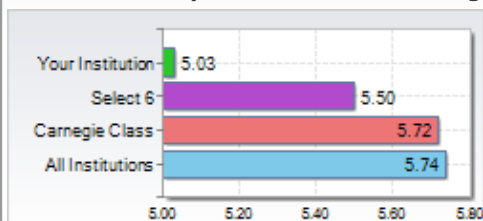
Increasing from last year



# Communication

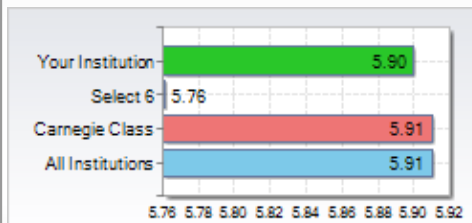
## ABET Criterion 3 (g) an ability to communicate effectively

### Q060. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using oral progress reports



	N	Mean	Std Dev				
Your Institution	72	5.03	1.32				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	209	5.5	1.44	4.51	6.04	-0.47	6
Carnegie Class	661	5.72	1.32	4.51	6.47	-0.69	21
All Institutions	1076	5.74	1.24	4.08	6.62	-0.71	35

### Q061. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Communicate using written progress reports

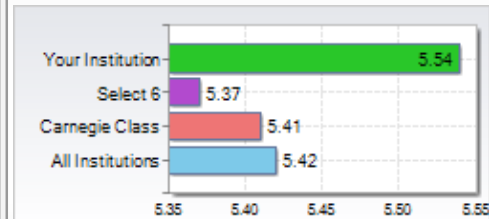


	N	Mean	Std Dev				
Your Institution	71	5.9	1.16				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	209	5.76	1.29	4.76	6.33	0.14	4
Carnegie Class	656	5.91	1.2	4.67	6.54	-0.01	11
All Institutions	1076	5.91	1.15	4.13	6.69	-0.01	22

# Teamwork

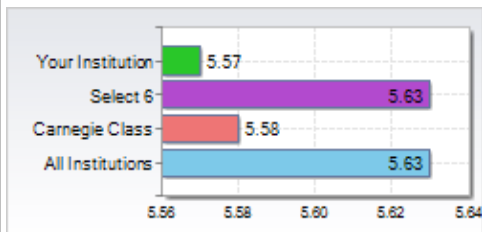
## ABET Criterion 3 (d) an ability to function on multi-disciplinary teams

**Q054. Program Outcomes and Assessment - Skill Development - Degree that engineering education enhanced ability to: Function on multidisciplinary teams**



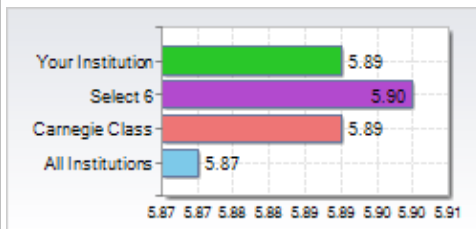
	N	Mean	Std Dev				
Your Institution	71	5.54	1.2				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	208	5.37	1.52	4.42	6.08	0.17	3
Carnegie Class	648	5.41	1.53	4.42	6.11	0.13	8
All Institutions	1057	5.42	1.52	4.38	6.25	0.12	15

## 40. Classmates - Satisfaction with characteristics of your fellow students': Ability to work in teams



	N	Mean	Std Dev				
Your Institution	72	5.57	1.03				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	200	5.63	1.23	5.08	5.9	-0.06	3 of 7
Carnegie Class	656	5.58	1.31	4.38	6.67	-0.01	10 of 24
All Institutions	1079	5.63	1.31	4.38	6.67	-0.06	19 of 39

## 41. Classmates - Satisfaction with characteristics of your fellow students': Level of camaraderie



	N	Mean	Std Dev				
Your Institution	71	5.89	0.96				
	N	Mean	Std Dev	Min	Max	Difference	Rank
Select 6	198	5.9	1.26	5.41	6.39	-0.01	3 of 7
Carnegie Class	655	5.89	1.32	4.89	7	0.00	9 of 24
All Institutions	1076	5.87	1.33	4.81	7	0.02	17 of 39



# Watched Scores

- 52 - analyze and interpret data : now well above average
- 40 - satisfaction with fellow students on teams – rising
- Lowest absolute – political issues, work in courses
- Comparisons with Select-6 peer group – work in courses, ethics, advising by faculty improving, designing experiments
- Action needs
  - Advising improvements continue
  - Communications – Oral and Written
  - Teamwork