Pittsburgh Freshman Engineering Attitudes Survey^{©*} M. Besterfield-Sacre**, C.J. Atman, and L.J. Shuman

This is a survey to elicit Freshman Engineers' opinions and feelings about engineering. Please do not spend more than **25** minutes to complete the questionnaire, so work as quickly as you can. (<u>Remember</u>, these are your own personal feelings, not your friend's.) Your responses will remain anonymous. Please use a number 2 pencil; do not use a pen. Complete the following information as instructed.

Studen	t Numbe	er							Age		School			Ethnicity				Gender
													Ī	O African American		O Male		
0 0	00	00	00	00	00	00	00	00	00	0 0	0 0	0 0		O Asian Pacific		O Female		
0 1	01	01	01	01	01	01	01	01	01	01	01	01		O Hispanic			Enrollment Status	
0 2	02	O 2	O 2	02	O 2	O 2	O 2	02	02	O 2	O 2	0 2		O Native American			O Part (<12 hrs)	
03	03	03	O 3	03	O 3	03	03	03	03	O 3	O 3	03		O White Caucasian			O Full (≥ 12 hrs)	
0 4	04	O 4	0 4	04	04	O 4	O 4	O 4	O 4	O 4	O 4	O 4	_	School Specific Codes				Transfer Student?
0 5	05	0 5	0 5	05	05	05	05	05	05	0 5	0 5	0 5		0 0	0 4	0 8	012	O No
0 6	06	0 6	06	06	06	06	06	06	06	0 6	0 6	0 6		01	05	09	O13	O Yes (< 24 hrs)
07	07	07	07	07	07	07	07	07	07	07	07	07		02	06	O 10	014	O Yes (≥ 24 hrs)
0 8	08	08	08	08	08	08	08	08	08	0 8	0 8	0 8		O 3	07	O 11	015	
09	09	09	09	09	09	09	09	09	09	09	09	09	_	•				

For each statement about engineering, please fill in the number that corresponds to how strongly you disagree or agree with the statement.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I expect that engineering will be a rewarding career.	01	O 2	O 3	O 4	Ö 5
2.	I expect that studying engineering will be rewarding.	01	O 2	O 3	O 4	0 5
3.	The advantages of studying engineering outweigh the disadvantages.	01	O 2	O 3	O 4	O 5
4.	I don't care for this career.	01	O 2	O 3	O 4	0 5
5.	The future benefits of studying engineering are worth the effort.	01	O 2	O 3	O 4	0 5
6.	I can think of several other majors that would be more rewarding than engineering.	01	O 2	O 3	O 4	0 5
7.	I have no desire to change to another major (ex. biology, English, chemistry, art, history, etc.).	01	O 2	O 3	O 4	0 5
8.	The rewards of getting an engineering degree are not worth the effort.	01	O 2	O 3	O 4	0 5
9.	From what I know, engineering is boring.	01	O 2	O 3	O 4	0 5
10.	Engineers are well paid.	01	O 2	O 3	O 4	0 5
11.	Engineers contribute more to making the world a better place than people in most other occupations.	01	O 2	O 3	O 4	0 5
12.	Engineers are innovative.	01	O 2	O 3	O 4	O 5
13.	I enjoy the subjects of science and mathematics the most.	01	O 2	O 3	O 4	05
14.	I will have no problem finding a job when I have obtained an engineering degree.	01	O 2	O 3	O 4	O 5
15.	Engineering is an exact science.	01	O 2	O 3	O 4	0 5
16.	My parent(s) are making me study engineering.	01	O 2	O 3	O 4	O 5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17. Engineering is an occupation that is respected by other people.	01	O 2	O 3	O 4	O 5
18. I like the professionalism that goes with being an engineer.	01	O 2	O 3	O 4	O 5
19. I enjoy taking liberal arts courses more than math and science courses.	01	O 2	O 3	O 4	0 5
20. Engineering is more concerned with improving the welfare of society than most other professions.	01	O 2	O 3	O 4	05
21. I am studying engineering because it will provide me with a lot of money; and I cannot do this in other professions.	01	O 2	O 3	0 4	O 5
22. Engineers have contributed greatly to fixing problems in the world.	01	O 2	O 3	0 4	O 5
23. An engineering degree will guarantee me a job when I graduate.	01	O 2	O 3	O 4	O 5
24. My parent(s) want me to be an engineer.	01	O 2	O 3	O 4	O 5
25. Engineers are creative.	01	O 2	O 3	O 4	O 5
26. Engineering involves finding precise answers to problems.	01	O 2	O 3	O 4	O 5
27. I am studying engineering because I enjoy figuring out how things work.	01	O 2	O 3	0 4	05
28. Technology plays an important role in solving society's problems.	01	O 2	O 3	O 4	O 5

For the following subjects and skills, please fill in the number corresponding to the response that best describes how confident you are of your abilities in the subject or skill.

	Not Strongly Confident	Not Confident	Neutral	Confident	Strongly Confident
29. Chemistry	01	O 2	O 3	O 4	0 5
30. Physics	01	O 2	O 3	O 4	0 5
31. Calculus	01	O 2	O 3	O 4	0 5
32. Engineering	01	O 2	O 3	O 4	O 5
33. Writing	01	O 2	O 3	O 4	O 5
34. Speaking	01	O 2	O 3	O 4	O 5
35. Computer Skills	01	O 2	O 3	O 4	O 5

For the following statements about studying, working in groups and personal abilities, please fill in the number corresponding to the response that best describes how strongly you disagree or agree with the statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
36. I feel I know what an engineer does.	01	O 2	O 3	O 4	0 5
37. Studying in a group is better than studying by myself.	01	0 2	O 3	O 4	0 5
38. Creative thinking is one of my strengths.	01	O 2	O 3	O 4	05
39. I need to spend more time studying than I currently do.	O 1	O 2	O 3	O 4	O 5
40. I have strong problem solving skills.	01	O 2	O 3	O 4	O 5
41. Most of my friends that I 'hang-out' with are studying engineering.	01	O 2	O 3	O 4	O 5
42. I feel confident in my ability to succeed in engineering.	01	O 2	O 3	O 4	O 5

43. I prefer studying/working alone.	01	O 2	O 3	O 4	0 5
44. I am good at designing things.	01	O 2	O 3	O 4	0 5
45. In the past, I have not enjoyed working in assigned groups.	01	O 2	O 3	O 4	0 5
46. I am confident about my current study habits or routine.	01	O 2	O 3	O 4	0 5
47. I consider myself mechanically inclined.	01	O 2	O 3	O 4	0 5
48. I consider myself technically inclined.	01	O 2	O 3	O 4	0 5
49. I enjoy solving open-ended problems.	01	O 2	O 3	O 4	05
50. I enjoy problems that can be solved in different ways.	01	O 2	O 3	O 4	05

Supported by the EiF98.4 *Perception vs. Performance: The Effects of Gender and Ethnicity across Engineering Schools* For information, contact Mary Besterfield-Sacre (mbsacre@pitt.edu); 1040 Benedum Hall, University of Pittsburgh, PA

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