

Appendix C (Continued)

<b>A1-From which sources did you obtain information about the BBSI Program?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
The BBSI program director, coordinator, or other administrator		20	18	27	22	22
BBSI faculty/researchers	<i>m</i>	28	16	22	17	21
Current or former BBSI students	%	2 *	16	18	21	15
Non-BBSI faculty/researchers	%	28	18	22	23	23
BBSI brochure	%	31	20	21	26	24
Conference		3	5	0 *	1	2
Website (BBSI, NSF, NIH, institution)		63 *	82	77	78	75
Other		20	13	8	12	13
None of the above	%	2	2	0	1	1
<b>A2A-How important to your decision to apply to the BBSI Program was the interdisciplinary coursework offered by BBSI?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	59	78	77	278
<i>Mean</i>	<i>m</i>	2.98	2.95	3.01	2.86	2.95
Not Important	%	5	8	5	12	8
Somewhat Important	%	17	22	26	18	21
Fairly Important	%	53 **	36	32	43	41
Extremely Important	%	25	34	37	27	31
<b>A2B-How important to your decision was the opportunity to find out if bioengineering or bioinformatics was for you?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	3.40	3.31	3.35	3.26	3.33
Not Important	%	5	2	4	1	3
Somewhat Important	%	9	20	14	18	15
Fairly Important	%	28	25	26	35	28
Extremely Important	%	58	54	56	46	54

Appendix C (Continued)

<b>A2C-How important to your decision were the research projects of BBSI faculty?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	3.02	3.05	3.19	3.18	3.12
Not Important	%	9	10	3	4	6
Somewhat Important	%	18	18	19	17	18
Fairly Important	%	34	30	35	37	34
Extremely Important	%	38	43	44	42	42
<b>A2D-How important to your decision were the research seminars offered by BBSI?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	77	281
<i>Mean</i>	<i>m</i>	2.69	2.72	2.78	2.68	2.72
Not Important	%	6	16	6	10	10
Somewhat Important	%	32	15 *	32	27	27
Fairly Important	%	48	49	38	47	45
Extremely Important	%	14	20	23	16	18
<b>A2E-How important to your decision was the opportunity for a "hands-on" research experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	77	281
<i>Mean</i>	<i>m</i>	3.75	3.85	3.87	3.79	3.82
Not Important	%	2	0	0	1	1
Somewhat Important	%	2	2	0 *	4	2
Fairly Important	%	17	11	13	9	12
Extremely Important	%	80	87	87	86	85
<b>A2F-How important to your decision was the opportunity to learn more about what it's like to be a researcher?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.44	3.56	3.49	3.64	3.53
Not Important	%	2	0	0	1	1
Somewhat Important	%	13	7	13	8	10
Fairly Important	%	27	31	26	17	25
Extremely Important	%	59	62	62	74	65

## Appendix C (Continued)

<b>A2G-How important to your decision was the opportunity to find out if going to graduate school was for you?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	2.67 *	3.05	3.01	3.19	2.99
Not Important	%	19	13	13	12	14
Somewhat Important	%	25	13	15	13	16
Fairly Important	%	27	30	29	21	26
Extremely Important	%	30 *	44	42	55 **	43
<b>A2H-How important to your decision was the opportunity to fulfill your school's or your scholarship's requirements for research?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	1.28 *	1.48	1.71 **	1.36	1.46
Not Important	%	83	77	65 *	82	77
Somewhat Important	%	9	8	12	5	9
Fairly Important	%	5	5	10	8	7
Extremely Important	%	3 *	10	13	5	8
<b>A2I-How important to your decision was the opportunity to earn academic credit for doing research in the summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	1.38	1.54	1.56	1.32	1.45
Not Important	%	80	69	65	82	74
Somewhat Important	%	8	18	21	6 *	13
Fairly Important	%	8	3	6	9	7
Extremely Important	%	5	10	8	3	6
<b>A2J-How important to your decision was the opportunity for an experience that might help you get into graduate school?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	3.06	2.98	3.06	3.26	3.1
Not Important	%	17	11	8	12	12
Somewhat Important	%	11	18	17	8	13
Fairly Important	%	22	31	37	24	29
Extremely Important	%	51	39	38	56 **	46

## Appendix C (Continued)

**A2K-How important to your decision was  
the opportunity for an experience that  
might help you get a job?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	2.65	2.84	2.82	2.69	2.75
Not Important	%	18	8 *	15	17	15
Somewhat Important	%	28	28	18	27	25
Fairly Important	%	25	36	36	27	31
Extremely Important	%	29	28	31	29	29

**A2L-How important to your decision was  
the reputation of the host institution?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	2.37	2.62	2.54	2.62	2.54
Not Important	%	23	11	21	15	18
Somewhat Important	%	34	33	24	28	29
Fairly Important	%	26	38	36	36	34
Extremely Important	%	17	18	19	21	19

**A2M-How important to your decision was  
the geographic location of the host  
institution?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	2.51	2.7	2.83 **	2.47	2.63
Not Important	%	23	16	15	21	19
Somewhat Important	%	23	20	18	31	23
Fairly Important	%	34	41	35	29	34
Extremely Important	%	20	23	32 **	19	24

**A2N-How important to your decision were  
the stipend and support package (housing,  
meals, etc.)?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	3.18	3.05	3.31	3.19	3.19
Not Important	%	2	8	3	1	3
Somewhat Important	%	12	13	14	19	15
Fairly Important	%	52	44	33	38	41
Extremely Important	%	34	34	50	41	40

## Appendix C (Continued)

<b>A2O-How important to your decision were the living arrangements?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	59	78	78	280
<i>Mean</i>	<i>m</i>	2.34	2.73	2.64	2.59	2.58
Not Important	%	29	20	17	15	20
Somewhat Important	%	25	15	23	35 **	25
Fairly Important	%	29	36	40	26	33
Extremely Important	%	17	29	21	24	23

<b>A2P-How important to your decision were the social/cultural activities?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	2.28	2.30	2.41	2.09 *	2.27
Not Important	%	17	26	19	26	22
Somewhat Important	%	45	30	33	45	38
Fairly Important	%	32	33	35	24	31
Extremely Important	%	6	11	13	5	9

<b>A2Q-How important to your decision were "other" reasons?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	16	10	25	19	70
<i>Mean</i>	<i>m</i>	1.38	1.80	1.16	1.26	1.33
Not Important	%	81	70	88	89	84
Somewhat Important	%	6	0 *	8	0 *	4
Fairly Important	%	6	10	4	5	6
Extremely Important	%	6	20	0 *	5	6

<b>A3-Which field best describes your research interest at the time you applied to your first BBSI?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
Bioengineering/biomedical engineering *	%	na	na	na	na	42
Bioinformatics *	%	na	na	na	na	35
Both fields *	%	na	na	na	na	10
Other field(s) *	%	na	na	na	na	14

\* na = not available. Some of the 'other field' verbatims were recoded into bioengineering or bioinformatics. Recoding was done only in the aggregate, not by year.

## Appendix C (Continued)

<b>A4-Did you apply to any other research programs/projects/summer institutes (including another BBSI) or for any internships for the same summer you first participated in a BBSI?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Yes	%	34 *	61	53	58	51
No	%	66 **	39	47	42	49
<b>A5-To which research programs did you apply for the same summer as your BBSI?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	21	37	41	45	144
Another BBSI	%	5 *	49 **	37	29	33
Research Experience for Undergraduates (REU) program	%	57	59	63	69	63
NIH Summer Research Program	%	43	41	34	40	39
University research assistantship	%	38	32	32	27	31
Federal work-study	%	0	5	2	0	2
Internship (in government, industry, non-profit organization)	%	33	22	41	31	32
Another summer research program	%	19	0 *	10	13	10
None of the above	%	0	0	2	0	1
<b>A6A-What was your class level at the end of the academic year before you started your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
Sophomore	%	32	32	29	31	31
Junior	%	38	37	44	45	41
Senior	%	6	12	10	9	9
New graduate	%	11	10	8	5	8
Graduate student with one or more semesters of graduate school	%	12	10	9	10	10

Appendix C (Continued)

<b>A6B-What was your cumulative Grade Point Average (GPA) at the end of the academic year (May or June) before you started your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	55	54	59	66	234
<i>Mean</i>	<i>m</i>	3.65	3.69	3.62	3.69	3.66
Less than 3.5	%	20	17	17	17	18
3.5 to 3.6	%	24	26	24	26	25
3.7 to 3.8	%	31	28	37	26	30
3.9 or higher	%	25	30	22	32	27

  

<b>B1-Please indicate the educational activities in which you participated during your first BBSI summer.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Courses/lectures on academic subjects taught by BBSI faculty	%	95	95	97	95	96
Research seminars led by BBSI faculty	%	97	93	94	86 *	92
Seminars/lectures given by outside speakers	%	85	93	92	95	91
Seminars in which students presented and discussed their research	%	95	95	95	100 **	96
Other (please specify)	%	11	11	5	14	10
None of the above	%	0	0	0	0	0

## Appendix C (Continued)

<b>B2-Please indicate the subjects/topics covered in the BBSI courses/seminars/lectures that you attended during your first BBSI summer.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Bioinformatics	%	80	74	77	73	76
Bioengineering	%	82	74	79	72	77
Other engineering	%	46	44	51	38	45
Biology	%	86	85	82	90	86
Statistics	%	48	52	55	54	52
Computer programming	%	62	61	65	63	63
Ethics	%	69	74	73	63	70
Research tools and techniques	%	89	84	86	87	87
Other academic subject	%	5	7	6	14	8
Communication/presentation skills	%	83	79	79	81	80
Proposal writing	%	35	30 *	47	47	41
Resume preparation	%	20	31	38 **	24	29
Career planning	%	49	44	64	56	54
Other professional development topics	%	2	7	3	3	3
None of the above	%	0	0	0	0	0

<b>B3A-During your first BBSI summer, how satisfied were you with the courses/lectures on academic subjects taught by BBSI faculty?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.46	3.43	3.35	3.41	3.41
Very Dissatisfied	%	2	0	3	0	1
Somewhat Dissatisfied	%	6	7	13	9	9
Somewhat Satisfied	%	36	41	31	38	36
Very Satisfied	%	55	48	53	47	51
Doesn't apply	%	2	5	1	5	3

<b>B3B-During your first BBSI summer, how satisfied were you with the research seminars led by BBSI faculty?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.58	3.54	3.49	3.56	3.54
Very Dissatisfied	%	2	0	1	0	1
Somewhat Dissatisfied	%	2	5	3	4	3
Somewhat Satisfied	%	34	33	38	32	35
Very Satisfied	%	63	56	51	54	56
Doesn't apply	%	0 *	7	6	10	6

## Appendix C (Continued)

<b>B3C-During your first BBSI summer, how satisfied were you with the seminars/lectures given by outside speakers?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	77	78	280
<i>Mean</i>	<i>m</i>	3.56	3.49	3.49	3.56	3.53
Very Dissatisfied	%	2	0	3	0	1
Somewhat Dissatisfied	%	0 *	5	1	4	3
Somewhat Satisfied	%	34	38	36	35	36
Very Satisfied	%	53	51	51	58	53
Doesn't apply	%	11	7	9	4	8
<b>B3D-During your first BBSI summer, how satisfied were you with the seminars in which students presented and discussed their research?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	78	78	280
<i>Mean</i>	<i>m</i>	3.47	3.41	3.52	3.50	3.48
Very Dissatisfied	%	2	2	0	0	1
Somewhat Dissatisfied	%	2	7	4	4	4
Somewhat Satisfied	%	44	38	38	42	41
Very Satisfied	%	50	50	54	54	52
Doesn't apply	%	3	3	4	0 *	3
<b>B3E-During your first BBSI summer, how satisfied were you with the courses/seminars/ lectures on professional development?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	76	78	279
<i>Mean</i>	<i>m</i>	3.17	3.19	3.02	3.33 **	3.18
Very Dissatisfied	%	2	2	4	0 *	2
Somewhat Dissatisfied	%	9	13	16	9	12
Somewhat Satisfied	%	47	33	42	38	40
Very Satisfied	%	27	31	25	37	30
Doesn't apply	%	16	21	13	15	16

## Appendix C (Continued)

**B4A-For your first BBSI summer, how much do you agree with this statement: I gained fundamental knowledge in the subjects relevant to bioengineering and/or bioinformatics.**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.59	3.67	3.68	3.67	3.65
Disagree	%	2	3	0 *	3	2
Disagree Somewhat	%	2	0 *	1	3	1
Agree Somewhat	%	33	23	29	21	26
Agree	%	64	74	69	74	70
Have No Idea	%	0	0	0	0	0

**B4B-For your first BBSI summer, how much do you agree with this statement: I refreshed my previous knowledge of useful tools.**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.37	3.42	3.22	3.37	3.34
Disagree	%	3	2	5	5	4
Disagree Somewhat	%	6	11	8	3 *	7
Agree Somewhat	%	41	28	45	41	39
Agree	%	48	56	40	49	48
Have No Idea	%	2	3	3	3	2

**B4C-For your first BBSI summer, how much do you agree with this statement: I learned new tools and skill sets.**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.77	3.70	3.63	3.79	3.72
Disagree	%	0	0	1	0	< 1
Disagree Somewhat	%	3	3	5	3	4
Agree Somewhat	%	17	23	23	15	20
Agree	%	80	74	71	82	77
Have No Idea	%	0	0	0	0	0

## Appendix C (Continued)

**B4D-For your first BBSI summer, how much do you agree with this statement: I bonded with other BBSI students by spending time with them in class.**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	78	77	280
<i>Mean</i>	<i>m</i>	3.59	3.53	3.54	3.60	3.57
Disagree	%	0 *	2	1	1	1
Disagree Somewhat	%	9	11	6	6	8
Agree Somewhat	%	22	18	29	23	24
Agree	%	69	67	63	69	67
Have No Idea	%	0	2	0	0	< 1

**B4E-For your first BBSI summer, how much do you agree with this statement: I benefited from exposure to career professionals.**

		2003	2004	2005	2006	All
Number of respondents	N	64	60	77	76	277
<i>Mean</i>	<i>m</i>	3.49	3.66	3.65	3.68	3.62
Disagree	%	0	2	1	0	1
Disagree Somewhat	%	9	0 *	3	4	4
Agree Somewhat	%	31	28	25	24	27
Agree	%	58	67	68	72	66
Have No Idea	%	2	3	4	0 *	2

**B4F-For your first BBSI summer, how much do you agree with this statement: Courses/ lectures on academic subjects and research seminars are an important feature of the BBSI program.**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	3.72	3.75	3.62	3.68	3.69
Disagree	%	2	0	1	1	1
Disagree Somewhat	%	2	3	3	4	3
Agree Somewhat	%	20	18	28	21	22
Agree	%	77	79	67	74	74
Have No Idea	%	0	0	1	0	< 1

Appendix C (Continued)

<b>B6-Please indicate the research-related activities in which you participated during your first BBSI summer.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Writing a proposal that described the research you planned to do	%	46	48	59	60	54
Collecting and/or analyzing data or information to try to answer a research question	%	91	90	96	94	93
Mentoring other students in conducting research or leading a student research team	%	14	11	15	13	13
Going on research-related field trip(s) to other labs, universities, industry, etc.	%	57	54	62	50	56
Preparing/presenting a poster presentation that described your research and results	%	65	72	76	68	70
Preparing a final written research report that described your research and results	%	60	69	65	73	67
Delivering an oral/PowerPoint presentation that described your research and results	%	91	92	92	92	92
Attending student conference(s) that included students from multiple colleges	%	31 *	51	59 **	44	46
Attending professional conference(s) that were not specifically for students	%	15 *	21	35 **	24	24
Completing your research project (either during the summer or later on)	%	78	70	73	64	71
None of the above	%	0	0	0	0	0

<b>B7-Which of the following statements best describes your involvement in the development of your research project during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	77	78	281
My BBSI research project was designed by someone else without input from me	%	26	33	34	23	29
Someone else had primary responsibility for designing my BBSI research project but I provided input	%	54	46	44	55	50
I had primary responsibility for designing my BBSI research project	%	20	18	21	21	20
Other	%	0 *	3	1	1	1

## Appendix C (Continued)

<b>B8-Which best describes the focus of your research project during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
Bioengineering or biomedical engineering *	%	na	na	na	na	42
Bioinformatics *	%	na	na	na	na	47
Both fields	%	na	na	na	na	4
Other field(s) *	%	na	na	na	na	7
* na = not available. Some of the 'other field' verbatims were recoded into bioengineering or bioinformatics. Recoding was done only in the aggregate, not by year.						
<b>B9A-During your first BBSI summer, what percentage of your time did you spend on BBSI courses/seminars/lectures?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	37.52	33.64	33.83	32.35	34.22
0% to 20%	%	22	31	22	28	26
21% to 40%	%	41	48	56	50	49
41% to 60%	%	28	18	19	19	21
61% to 80%	%	9	3	3	1 *	4
81% to 100%	%	0	0	0	1	< 1
<b>B9B-During your first BBSI summer, what percentage of your time did you spend on "hands-on" research?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
<i>Mean</i>	<i>m</i>	62.48	66.36	66.17	67.40	65.71
0% to 20%	%	0	0	1	1	1
21% to 40%	%	14	8	4 *	9	9
41% to 60%	%	38	38	36	27	34
61% to 80%	%	38	44	47	45	44
81% to 100%	%	11	10	12	18	13
<b>B10A-During your first BBSI summer, how did you feel about the amount of time you spent on BBSI courses/seminars/lectures?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	77	280
Too little	%	6	8	12	0 *	6
About right	%	71	75	67	73	71
Too much	%	23	17	19	25	21
Have no idea	%	0	0	3	3	1

## Appendix C (Continued)

<b>B10B-During your first BBSI summer, how did you feel about the amount of time you spent on "hands-on" research?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	77	280
Too little	%	32	32	26	31	30
About right	%	68	68	73	68	69
Too much	%	0	0	1	0	< 1
Have no idea	%	0	0	0	1	< 1
<b>B11A-How satisfied were you with the research project(s) you worked on during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	77	280
<i>Mean</i>	<i>m</i>	3.18	3.23	3.27	3.53	3.31 **
Very Dissatisfied	%	2	3	3	0	2 *
Somewhat Dissatisfied	%	15	15	10	5	11 *
Somewhat Satisfied	%	46	37	45	36	41
Very Satisfied	%	37	45	42	58	46 **
Doesn't apply	%	0	0	0	0	0
<b>B11B-How satisfied were you with the amount of involvement you had in selecting or designing your research project(s) during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	59	78	78	280
<i>Mean</i>	<i>m</i>	3.19	3.19	3.23	3.31	3.24
Very Dissatisfied	%	3	2	3	4	3
Somewhat Dissatisfied	%	15	19	18	9	15 *
Somewhat Satisfied	%	40	36	32	38	36
Very Satisfied	%	40	41	46	47	44
Doesn't apply	%	2	3	1	1	2
<b>B11C-How satisfied were you with the overall supportiveness of your faculty mentor(s) during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
<i>Mean</i>	<i>m</i>	3.52	3.53	3.41	3.72	3.55 **
Very Dissatisfied	%	5	2	6	1	4
Somewhat Dissatisfied	%	3	12	6	6	7
Somewhat Satisfied	%	28	18	26	12	21 *
Very Satisfied	%	64	68	60	81	68 **
Doesn't apply	%	0	0	1	0	< 1

## Appendix C (Continued)

<b>B11D-How satisfied were you with the adequacy of the technical guidance you received during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	3.17	3.37	3.29	3.47	3.33
Very Dissatisfied	%	5	5	5	1	4
Somewhat Dissatisfied	%	12	8	14	13	12
Somewhat Satisfied	%	45 **	32	26	23	31
Very Satisfied	%	38 *	55	53	63	53
Doesn't apply	%	0	0	1	0	< 1

<b>B11E-How satisfied were you with the extent to which you felt you were an integral part of a research team during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
<i>Mean</i>	<i>m</i>	3.15	3.30	3.20	3.27	3.23
Very Dissatisfied	%	5	3	5	5	5
Somewhat Dissatisfied	%	14	15	14	13	14
Somewhat Satisfied	%	39	30	35	32	34
Very Satisfied	%	38	52	44	50	46
Doesn't apply	%	5	0 *	1	0 *	1

<b>B11F-How satisfied were you with the independence you had in doing your work during your first BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
<i>Mean</i>	<i>m</i>	3.50	3.53	3.61	3.64	3.58
Very Dissatisfied	%	2	0	1	1	1
Somewhat Dissatisfied	%	5	7	6	6	6
Somewhat Satisfied	%	36	33	22	19	27
Very Satisfied	%	58	58	70	73	66
Doesn't apply	%	0	2	0	0	< 1

Appendix C (Continued)

<b>B12A-For your first BBSI summer, how much do you agree with this statement: I learned how to properly design a research project.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
<i>Mean</i>	<i>m</i>	3.00	2.84	2.81	2.96	2.90
Disagree	%	3	5	9	6	6
Disagree Somewhat	%	14	27	24	19	21
Agree Somewhat	%	58	43	44	46	48
Agree	%	20	22	23	28	23
Have No Idea	%	5	3	0 *	0 *	2

  

<b>B12B-For your first BBSI summer, how much do you agree with this statement: I became more skilled at collecting and/or analyzing data or information to answer research questions.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
<i>Mean</i>	<i>m</i>	3.46	3.37	3.31	3.47	3.40
Disagree	%	2	3	1	1	2
Disagree Somewhat	%	5	10	10	9	9
Agree Somewhat	%	38	32	45	31	37
Agree	%	52	53	44	59	52
Have No Idea	%	3	2	0	0	1

  

<b>B12C-For your first BBSI summer, how much do you agree with this statement: I learned how to present research results.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	78	77	279
<i>Mean</i>	<i>m</i>	3.47	3.46	3.42	3.58	3.48
Disagree	%	0	2	0	3	1
Disagree Somewhat	%	5	5	10	4	6
Agree Somewhat	%	44	38	37	26 *	36
Agree	%	52	53	51	68 **	56
Have No Idea	%	0	2	1	0	1

## Appendix C (Continued)

<b>B12D-For your first BBSI summer, how much do you agree with this statement: I learned how to conduct research independently.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
<i>Mean</i>	<i>m</i>	3.38	3.28	3.40	3.32	3.35
Disagree	%	2	2	0 *	5	2
Disagree Somewhat	%	6	12	6	8	8
Agree Somewhat	%	43	43	47	37	43
Agree	%	46	43	46	50	47
Have No Idea	%	3	0	0	0	1
<b>B12E-For your first BBSI summer, how much do you agree with this statement: I learned how to collaborate with others on research.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
<i>Mean</i>	<i>m</i>	3.28	3.33	3.26	3.27	3.28
Disagree	%	2	2	4	5	3
Disagree Somewhat	%	13	12	12	10	11
Agree Somewhat	%	42	38	39	36	39
Agree	%	44	48	45	47	46
Have No Idea	%	0	0	0	1	< 1
<b>B12F-For your first BBSI summer, how much do you agree with this statement: "Hands-on" research is an important feature of the BBSI program.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	78	78	281
<i>Mean</i>	<i>m</i>	3.86	3.85	3.86	3.87	3.86
Disagree	%	0	2	0	0	< 1
Disagree Somewhat	%	0	0	0	1	< 1
Agree Somewhat	%	14	10	14	10	12
Agree	%	85	87	85	88	86
Have No Idea	%	2	2	1	0	1
<b>B14AA-During your first BBSI, did your faculty mentor advise you on the direction of your research?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Yes	%	89	93	95	90	92
No	%	6	5	3	9	6
Doesn't apply	%	5	2	3	1	2

## Appendix C (Continued)

<b>B14AB-During your first BBSI, did your faculty mentor advise you on courses to take in undergraduate school?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	77	78	280
Yes	%	19	25	13 *	22	19
No	%	56	51	69 **	56	59
Doesn't apply	%	25	25	18	22	22
<b>B14AC-During your first BBSI, did your faculty mentor advise you on graduate school plans?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	77	78	281
Yes	%	46	44	61	58	53
No	%	42	41	34	35	37
Doesn't apply	%	12	15	5 *	8	10
<b>B14AD-During your first BBSI, did your faculty mentor advise you on career choices?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	78	78	281
Yes	%	41	36	46	46	43
No	%	42	49	47	45	46
Doesn't apply	%	17	15	6	9	11
<b>B14AE-During your first BBSI, did your faculty mentor write recommendation letter(s) for employment?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	77	78	280
Yes	%	9	11	4	8	8
No	%	53	56	62	55	57
Doesn't apply	%	38	33	34	37	35
<b>B14AF-During your first BBSI, did your faculty mentor write recommendation letter(s) for graduate school applications?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
Yes	%	22	27	21	17	21
No	%	45	48	58	51	51
Doesn't apply	%	33	25	21	32	28

## Appendix C (Continued)

<b>B14AG-During your first BBSI, did your faculty mentor write recommendation letter(s) for fellowship/grant/etc. applications?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	63	60	78	78	279
Yes	%	14	15	14	14	14
No	%	54	58	64	53	57
Doesn't apply	%	32	27	22	33	28
<b>B14AH-During your first BBSI, did your faculty mentor help you in other ways?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Yes	%	3	0	0	0	1
No	%	85	82	77	78	80
Doesn't apply	%	12	18	23	22	19
<b>B14BA-After you completed your first BBSI, did your faculty mentor advise you on the direction of your research?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	58	73	75	267
Yes	%	34	21	25	32	28
No	%	31 *	53	52	41	45
Doesn't apply	%	34	26	23	27	27
<b>B14BB-After you completed your first BBSI, did your faculty mentor advise you on courses to take in undergraduate school?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	58	73	75	267
Yes	%	10	9	5	9	8
No	%	48	64	64	55	58
Doesn't apply	%	43	28	30	36	34
<b>B14BC-After you completed your first BBSI, did your faculty mentor advise you on graduate school plans?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	58	72	74	265
Yes	%	38	34	39	42	38
No	%	34	40	40	36	38
Doesn't apply	%	28	26	21	22	24

## Appendix C (Continued)

<b>B14BD-After you completed your first BBSI, did your faculty mentor advise you on career choices?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	58	72	75	266
Yes	%	38	28	26	29	30
No	%	34 *	50	50	47	45
Doesn't apply	%	28	22	24	24	24
<b>B14BE-After you completed your first BBSI, did your faculty mentor write recommendation letter(s) for employment?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	56	71	75	263
Yes	%	8	21	13	13	14
No	%	43	43	45	44	44
Doesn't apply	%	49	36	42	43	43
<b>B14BF-After you completed your first BBSI, did your faculty mentor write recommendation letter(s) for graduate school applications?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	58	72	75	266
Yes	%	51	47	46	51	48
No	%	21	29	32	25	27
Doesn't apply	%	28	24	22	24	24
<b>B14BG-After you completed your first BBSI, did your faculty mentor write recommendation letter(s) for fellowship/grant/etc. applications?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	57	73	74	265
Yes	%	31	28	22	38	30
No	%	36	42	48 **	27 *	38
Doesn't apply	%	33	30	30	35	32
<b>B14BH-After you completed your first BBSI, did your faculty mentor help you in other ways?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	61	58	73	75	267
Yes	%	5	0 *	3	0 *	2
No	%	79	76	70	76	75
Doesn't apply	%	16	24	27	24	23

## Appendix C (Continued)

**B15-Including yourself, how many BBSI students did your faculty mentor advise during your first BBSI summer?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
<i>Mean</i>	<i>m</i>	2.29	2.06	2.39	2.01	2.18
1	%	45	36	35	40	39
2	%	20 *	38	33	32	31
3 or more	%	20	15	18	23	19
Don't know	%	15	11	14	5 *	11

**B16-Please indicate whether or not you continued your first summer's BBSI research into the academic year, either with faculty/ students or by yourself?**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	78	78	281
With a faculty mentor at your BBSI institution	%	31	16	19	28	24
With a faculty advisor at your home institution	%	30	15	15	23	21
With other faculty	%	8	8	6	4	6
With other students	%	9	3	4	9	6
By yourself	%	20	16	22	19	20
None of the above	%	55	69	65	62	63

**B17A-On average, including both formal and informal activities, how frequently did you socialize with your faculty mentor during your first BBSI summer?**

		2003	2004	2005	2006	All
Number of respondents	N	65	60	76	78	279
Not at All	%	22	22	22	18	21
Once a Month	%	22	35	30	18 *	26
2-3 Times a Month	%	15	15	12	18	15
4-5 Times a Month	%	23	23	24	37 **	27
6 or More Times a Month	%	18	5 *	12	9	11

## Appendix C (Continued)

**B17B-On average, including both formal and informal activities, how frequently did you socialize with other BBSI students during your first BBSI summer?**

		2003	2004	2005	2006	All
Number of respondents	N	65	59	74	76	274
Not at All	%	3	2	3	5	3
Once a Month	%	8	5	9	7	7
2-3 Times a Month	%	9	10	14	13	12
4-5 Times a Month	%	77	83	73	75	77
6 or More Times a Month	%	3	0	1	0	1

**B18A-Did you stay in touch with your faculty mentor after you completed your first BBSI summer?**

		2003	2004	2005	2006	All
Number of respondents	N	63	61	78	78	280
Yes	%	62	69	64	78	** 69
No	%	38	31	36	22	* 31

**B18B-Did you stay in touch with other BBSI students after you completed your first BBSI summer?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	77	281
Yes	%	74	77	83	75	78
No	%	26	23	17	25	22

**B20-Were you informed that students could return to your BBSI for a second summer?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
Yes	%	60	62	76	74	69
No	%	40	38	24	26	31

**B21-From which sources did you learn about the second BBSI summer?**

		2003	2004	2005	2006	All
Number of respondents	N	39	37	56	57	189
The BBSI program director, coordinator, or other administrator	%	97	92	89	93	93
BBSI faculty/researchers	%	74	84	** 70	60	* 70
BBSI brochure	%	56	** 43	39	26	* 40
Current or former BBSI students	%	26	* 65	64	54	53
Website (BBSI, NSF, NIH, institution)	%	62	62	55	47	56
Other	%	8	0	* 0	2	2
None of the above	%	0	0	0	2	1

Appendix C (Continued)

<b>B22-Did you want to return for a second BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	39	37	55	56	187
Yes	%	64	62	58	54	59
No	%	36	38	42	46	41

  

<b>B23-Did you attend the same BBSI for a second summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	39	38	59	58	194
Yes	%	51	42	42	26 *	39
No	%	49	58	58	74 **	61

  

<b>B24-Please indicate the educational activities in which you participated during your second BBSI summer?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	20	15	25	15	75
Courses/lectures on academic subjects taught by BBSI faculty	%	95 **	67	52 *	67	69
Research seminars led by BBSI faculty	%	100 **	100	92	80	93
Seminars/lectures given by outside speakers	%	95	100	96	100	97
Seminars in which students presented and discussed their research	%	100	93	92	100	96
Other (please specify)	%	5	7	8	0	5
None of the above	%	0	0	0	0	0

  

<b>B25A-During your second BBSI summer, what percentage of your time did you spend on courses/seminars/lectures?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	<i>22.00</i>	<i>29.33</i>	<i>19.40</i>	<i>23.00</i>	<i>22.80</i>
0% to 20%	%	65	53	72	67	65
21% to 40%	%	30	20	24	27	25
41% to 60%	%	5	20	4	0 *	7
61% to 80%	%	0	0	0	0	0
81% to 100%	%	0	7	0	7	3

## Appendix C (Continued)

**B25B-During your second BBSI summer, what percentage of your time did you spend on "hands-on" research?**

		2003	2004	2005	2006	All
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	78.00	70.67	80.60	77.00	77.20
0% to 20%	%	0	7	0	7	3
21% to 40%	%	0	0	0	0	0
41% to 60%	%	5	27	16	7	13
61% to 80%	%	70	**	27	36	47
81% to 100%	%	25	40	48	40	39

**B26A-During your second BBSI summer, how did you feel about the amount of time you spent on BBSI courses/seminars/lectures?**

		2003	2004	2005	2006	All
Number of respondents	N	20	16	25	15	76
Too little	%	10	13	20	7	13
About right	%	80	88	72	67	76
Too much	%	10	0 *	4	20	8
Have no idea	%	0	0	4	7	3

**B26B-During your second BBSI summer, how did you feel about the amount of time you spent on "hands-on" research?**

		2003	2004	2005	2006	All
Number of respondents	N	20	16	25	15	76
Too little	%	5	6	16	20	12
About right	%	95	88	84	73	86
Too much	%	0	6	0	7	3
Have no idea	%	0	0	0	0	0

**B27A-With respect to your second BBSI summer, how much do you agree with this statement: The second summer allowed me to focus a lot more on research than I could in the first summer.**

		2003	2004	2005	2006	All
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	3.10	3.40	3.58	3.67	3.43
Disagree	%	10	0	0	0	3
Disagree Somewhat	%	15	13	8	7	11
Agree Somewhat	%	30	33	24	20	27
Agree	%	45	53	64	73	59
Have No Idea/Doesn't apply	%	0	0	4	0	1

## Appendix C (Continued)

**B27B-With respect to your second BBSI summer, how much do you agree with this statement: Having had the first-summer experience, I was able to jump right into my research the second summer.**

		2003	2004	2005	2006		All
Number of respondents	N	20	15	25	15		75
<i>Mean</i>	<i>m</i>	3.35	3.47	3.50	3.87	**	3.53
Disagree	%	5	0	0	0		1
Disagree Somewhat	%	5	13	16	0	*	9
Agree Somewhat	%	40	27	16	13		24
Agree	%	50	60	64	87	**	64
Have No Idea/Doesn't apply	%	0	0	4	0		1

**B27C-With respect to your second BBSI summer, how much do you agree with this statement: By the end of the second summer, I felt like a graduate student in my ability to do research.**

		2003	2004	2005	2006		All
Number of respondents	N	20	15	25	15		75
<i>Mean</i>	<i>m</i>	3.20	3.13	3.24	3.40		3.24
Disagree	%	10	13	0	7	*	7
Disagree Somewhat	%	5	7	28	7	**	13
Agree Somewhat	%	40	33	20	27		29
Agree	%	45	47	52	60		51
Have No Idea/Doesn't apply	%	0	0	0	0		0

**B27D-With respect to your second BBSI summer, how much do you agree with this statement: As a second-summer student, I helped orient first-summer students and was a peer mentor to them.**

		2003	2004	2005	2006		All
Number of respondents	N	20	15	25	15		75
<i>Mean</i>	<i>m</i>	2.94	3.17	3.24	3.07		3.12
Disagree	%	5	0	4	7		4
Disagree Somewhat	%	15	20	12	20		16
Agree Somewhat	%	45	27	40	33		37
Agree	%	20	33	44	40		35
Have No Idea/Doesn't apply	%	15	20	0	0	* *	8

## Appendix C (Continued)

**B27E-With respect to your second BBSI summer, how much do you agree with this statement: One summer of BBSI would have been enough for me.**

		2003	2004	2005	2006	All
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	1.65	1.73	1.67	1.40	1.62
Disagree	%	55	40	48	73 **	53
Disagree Somewhat	%	35	53	36	13 *	35
Agree Somewhat	%	0	0	8	13	5
Agree	%	10	7	4	0	5
Have No Idea/Doesn't apply	%	0	0	4	0	1

**B27F-With respect to your second BBSI summer, how much do you agree with this statement: The coursework for second-summer students should be different in content from that for first-summer students.**

		2003	2004	2005	2006	All
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	3.39	3.40	3.26	3.71 **	3.41
Disagree	%	0	0	8	0	3
Disagree Somewhat	%	20	7	12	0 *	11
Agree Somewhat	%	15	47	20	27	25
Agree	%	55	47	52	67	55
Have No Idea/Doesn't apply	%	10	0 *	8	7	7

**B27G-With respect to your second BBSI summer, how much do you agree with this statement: The time required for coursework should be less for second-summer students than for first-summer students.**

		2003	2004	2005	2006	All
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	3.47	3.53	3.29	3.80 **	3.49
Disagree	%	0	0	8	0	3
Disagree Somewhat	%	15	0 *	12	7	9
Agree Somewhat	%	20	47	20	7 *	23
Agree	%	60	53	56	87 **	63
Have No Idea/Doesn't apply	%	5	0	4	0	3

Appendix C (Continued)

**B27H-With respect to your second BBSI summer, how much do you agree with this statement: A two-summer program promotes a longer, more continuous connection between faculty and students.**

		2003	2004	2005	2006	All
Number of respondents	N	20	15	25	15	75
<i>Mean</i>	<i>m</i>	3.75	3.73	3.88	3.87	3.81
Disagree	%	0	0	0	0	0
Disagree Somewhat	%	5	0	4	0	3
Agree Somewhat	%	15	27	4 *	13	13
Agree	%	80	73	92	87	84
Have No Idea/Doesn't apply	%	0	0	0	0	0

**B27I-With respect to your second BBSI summer, how much do you agree with this statement: The second-summer experience is an important feature of the BBSI program.**

		2003	2004	2005	2006	All
Number of respondents	N	19	15	25	15	74
<i>Mean</i>	<i>m</i>	3.79	3.80	3.84	3.80	3.81
Disagree	%	0	0	0	0	0
Disagree Somewhat	%	0	0	0	7	1
Agree Somewhat	%	21	20	16	7	16
Agree	%	79	80	84	87	82
Have No Idea/Doesn't apply	%	0	0	0	0	0

**B29-Did your BBSI include graduate students who had to satisfy the same coursework and research requirements as the undergraduate students?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
Yes	%	37	69 **	46	36 *	46
No	%	42	18 *	27	38	32
Have no idea	%	22	13 *	27	26	22

## Appendix C (Continued)

**B30A-With respect to graduate student participants in the BBSI you attended, how much do you agree with this statement: Undergraduate students benefit from observing the maturity and work ethic of graduate student participants.**

		2003	2004	2005	2006	All
Number of respondents	N	24	41	36	28	129
<i>Mean</i>	<i>m</i>	3.25	3.32	3.06	3.15	3.20
Disagree	%	0 *	5	11	7	6
Disagree Somewhat	%	8	12	11	4	9
Agree Somewhat	%	46	24	31	50	36
Agree	%	29	51	39	32	40
Have No Idea	%	17	7	8	7	9

**B30B-With respect to graduate student participants in the BBSI you attended, how much do you agree with this statement: Graduate student participants help undergraduates in considering further education and career tracks.**

		2003	2004	2005	2006	All
Number of respondents	N	24	41	35	28	128
<i>Mean</i>	<i>m</i>	3.38	3.37	2.97 *	3.30	3.24
Disagree	%	0 *	2	11	7	5
Disagree Somewhat	%	4	17	14	0 *	10
Agree Somewhat	%	46	17 *	34	46	34
Agree	%	38	56 **	34	43	44
Have No Idea	%	13	7	6	4	7

**B30C-With respect to graduate student participants in the BBSI you attended, how much do you agree with this statement: The BBSI program gives graduate student participants an opportunity to change direction or narrow their focus.**

		2003	2004	2005	2006	All
Number of respondents	N	24	41	36	28	129
<i>Mean</i>	<i>m</i>	3.59	3.67	3.36	3.38	3.49
Disagree	%	0	0	0	4	1
Disagree Somewhat	%	0 *	5	11	4	5
Agree Somewhat	%	29	12 *	28	36	25
Agree	%	42	49	39	43	43
Have No Idea	%	29	34	22	14	26

## Appendix C (Continued)

<b>B30D-With respect to graduate student participants in the BBSI you attended, how much do you agree with this statement: Allowing graduate students to participate is an important feature of the BBSI program.</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	24	41	36	28	129
<i>Mean</i>	<i>m</i>	3.68	3.66	3.75	3.59	3.67
Disagree	%	0	2	0	0	1
Disagree Somewhat	%	4	2	0	4	2
Agree Somewhat	%	17	20	22	32	22
Agree	%	58	68	67	61	64
Have No Idea	%	21	7	11	4	10

<b>B32A-To what extent do you think your BBSI experience increased your understanding or awareness of what bioengineering and/or bioinformatics are, including the variety of applications?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	3.49	3.53	3.56	3.60	3.55
Not At All	%	0	0	1	0	< 1
Somewhat	%	9	7	6	4	6
A Fair Amount	%	32	33	27	32	31
A Great Deal	%	58	60	65	64	62
Have No Idea	%	0	0	0	0	0

<b>B32B-To what extent do you think your BBSI experience increased your understanding or awareness of how your work contributed to the "bigger picture" of research in bioengineering and/or bioinformatics?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	75	77	276
<i>Mean</i>	<i>m</i>	3.25	3.17	3.18	3.30	3.23
Not At All	%	2	3	1	1	2
Somewhat	%	16	15	24	12	17
A Fair Amount	%	39	43	29	43	38
A Great Deal	%	44	38	44	44	43
Have No Idea	%	0	0	1	0	< 1

## Appendix C (Continued)

<b>B32C-To what extent do you think your BBSI experience increased your understanding or awareness of the variety of fields related to bioengineering and/or bioinformatics that you could specialize in?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	76	278
<i>Mean</i>	<i>m</i>	3.38	3.43	3.44	3.43	3.42
Not At All	%	2	0	3	0	1
Somewhat	%	11	12	6	11	10
A Fair Amount	%	35	33	35	36	35
A Great Deal	%	52	55	56	54	54
Have No Idea	%	0	0	0	0	0

<b>B32D-To what extent do you think your BBSI experience increased your understanding or awareness of career options in bioengineering and/or bioinformatics?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	3.05	3.18	3.22	3.31	3.20
Not At All	%	2	0 *	4	0 *	1
Somewhat	%	29 **	20	12	15	19
A Fair Amount	%	32	42	43	38	39
A Great Deal	%	37	38	42	46	41
Have No Idea	%	0	0	0	0	0

<b>B32E-To what extent do you think your BBSI experience increased your skills/abilities in working collaboratively with others?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	76	78	279
<i>Mean</i>	<i>m</i>	3.05	3.13	3.12	2.92	3.05
Not At All	%	2	2	5	6	4
Somewhat	%	20	18	14	24	19
A Fair Amount	%	49	45	43	38	44
A Great Deal	%	28	35	37	29	32
Have No Idea	%	2	0	0	1	1

## Appendix C (Continued)

<b>B32F-To what extent do you think your BBSI experience increased your skills/abilities in working independently?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	76	78	279
<i>Mean</i>	<i>m</i>	3.23	3.32	3.38	3.38	3.33
Not At All	%	2	0	1	1	1
Somewhat	%	20	13	11	9	13
A Fair Amount	%	32	42	37	40	38
A Great Deal	%	46	45	51	50	48
Have No Idea	%	0	0	0	0	0
<b>B32G-To what extent do you think your BBSI experience increased your skills/abilities in preparing written research reports, papers, or posters?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	2.98 *	3.28	3.25	3.27	3.20
Not At All	%	5	3	3	6	4
Somewhat	%	23	12	13	10	14
A Fair Amount	%	40	38	42	33	38
A Great Deal	%	31 *	47	43	50	43
Have No Idea	%	2	0	0	0	< 1
<b>B32H-To what extent do you think your BBSI experience increased your skills/abilities in delivering oral/PowerPoint research presentations?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	76	278
<i>Mean</i>	<i>m</i>	3.15	3.37	3.39	3.36	3.32
Not At All	%	6	2	1	3	3
Somewhat	%	15	12	9	11	12
A Fair Amount	%	35	35	38	36	36
A Great Deal	%	43	52	51	51	49
Have No Idea	%	0	0	1	0	< 1

## Appendix C (Continued)

**B32I-To what extent do you think your  
BBSI experience increased your confidence  
in your research skills generally?**

		2003	2004	2005	2006	All
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	3.09	3.25	3.13	3.17	3.16
Not At All	%	6	3	5	5	5
Somewhat	%	18	8	14	14	14
A Fair Amount	%	35	48	43	40	41
A Great Deal	%	40	40	38	41	40
Have No Idea	%	0	0	0	0	0

**B32J-To what extent do you think your  
BBSI experience increased your  
qualifications for jobs in bioengineering  
and/or bioinformatics?**

		2003	2004	2005	2006	All
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	3.10	3.00	3.13	3.09	3.08
Not At All	%	5	5	3	4	4
Somewhat	%	17	27	23	22	22
A Fair Amount	%	38	32	31	36	34
A Great Deal	%	35	37	42	38	38
Have No Idea	%	5	0	1	0	1

**B32K-To what extent do you think your  
BBSI experience increased your  
understanding of the nature of the job of a  
researcher?**

		2003	2004	2005	2006	All
Number of respondents	N	65	60	76	78	279
<i>Mean</i>	<i>m</i>	3.23	3.23	3.25	3.41	3.29
Not At All	%	2	0	1	1	1
Somewhat	%	14	17	12	8	12
A Fair Amount	%	45	43	47	40	44
A Great Deal	%	40	40	39	51	43
Have No Idea	%	0	0	0	0	0

Appendix C (Continued)

<b>B32L-To what extent do you think your BBSI experience increased your ability to clarify your interests and to make informed decisions about your future plans?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	78	280
<i>Mean</i>	<i>m</i>	3.09	3.20	3.32	3.29	3.23
Not At All	%	2	2	0	0	1
Somewhat	%	23	17	16	13	17
A Fair Amount	%	40	42	36	44	40
A Great Deal	%	35	40	48	41	41
Have No Idea	%	0	0	0	3	1
<b>B32M-To what extent do you think your BBSI experience increased your confidence in your ability to succeed in graduate school?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
<i>Mean</i>	<i>m</i>	3.19	3.19	3.26	3.26	3.23
Not At All	%	8	2	5	4	5
Somewhat	%	11	22	12	13	14
A Fair Amount	%	33	32	34	36	34
A Great Deal	%	45	43	48	46	46
Have No Idea	%	3	2	1	1	2
<b>B32N-To what extent do you think your BBSI experience increased your understanding of what graduate school is like?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	77	78	279
<i>Mean</i>	<i>m</i>	2.97	3.09	3.04	3.05	3.04
Not At All	%	8	5	10	5	7
Somewhat	%	20	12 *	19	22	19
A Fair Amount	%	38	48 **	25 *	36	36
A Great Deal	%	33	30	44	37	37
Have No Idea	%	2	5	1	0	2

## Appendix C (Continued)

**B32O-To what extent do you think your BBSI experience increased your intellectual and social network of professional colleagues and friends?**

		2003	2004	2005	2006	All
Number of respondents	N	65	60	76	78	279
<i>Mean</i>	<i>m</i>	3.17	3.12	3.24	3.04	3.14
Not At All	%	5	3	3	1	3
Somewhat	%	17	22	13	27	20
A Fair Amount	%	34	35	42	38	38
A Great Deal	%	43	40	42	33	39
Have No Idea	%	2	0	0	0	< 1

**B33-At any point in time (during or after your BBSI experience), did you author or co-author any peer-reviewed articles about bioengineering or bioinformatics that were, or will be, published in academic journals?**

		2003	2004	2005	2006	All
Number of respondents	N	65	59	76	78	278
Yes	%	22	27	21	24	23
No	%	78	73	79	76	77

**B33A-How many articles did you author or co-author?**

		2003	2004	2005	2006	All
Number of respondents	N	14	15	14	19	62
<i>Mean</i>	<i>m</i>	1.86 **	1.33	1.29	1.26	1.42
1	%	43 *	80	79	84	73
2	%	29	7	14	5	13
3 or more	%	29	13	7	11	15

**B34A-How satisfied were you with the overall organization of the program at your BBSI?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	77	78	281
<i>Mean</i>	<i>m</i>	3.38	3.57	3.39	3.54	3.47
Very Dissatisfied	%	2	2	3	1	2
Somewhat Dissatisfied	%	8	5	10	8	8
Somewhat Satisfied	%	42	28	31	27	32
Very Satisfied	%	49	66	55	64	58
Doesn't apply	%	0	0	1	0	< 1

## Appendix C (Continued)

<b>B34B-How satisfied were you with your living arrangements (housing, meals)?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	76	278
<i>Mean</i>	<i>m</i>	3.31	3.69 **	3.38	3.43	3.45
Very Dissatisfied	%	0 *	0 *	5	3	2
Somewhat Dissatisfied	%	11	3	5	12	8
Somewhat Satisfied	%	31	20	26	17	23
Very Satisfied	%	34 *	62 **	48	54	49
Doesn't apply	%	25	15	16	14	17
<b>B34C-How satisfied were you with the amount of the stipend and support package?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	77	279
<i>Mean</i>	<i>m</i>	3.51	3.63	3.61	3.64	3.60
Very Dissatisfied	%	0	0	1	0	< 1
Somewhat Dissatisfied	%	0 *	0 *	6 **	1	2
Somewhat Satisfied	%	49 **	37	22 *	32	34
Very Satisfied	%	51 *	63	69	65	62
Doesn't apply	%	0	0	1	1	1
<b>B34D-How satisfied were you with the social/cultural activities offered by your BBSI?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	76	78	280
<i>Mean</i>	<i>m</i>	3.30	3.38	3.38	3.29	3.33
Very Dissatisfied	%	3	0 *	1	4	2
Somewhat Dissatisfied	%	8	13	12	13	11
Somewhat Satisfied	%	43	33	33	33	35
Very Satisfied	%	43	49	51	49	48
Doesn't apply	%	3	5	3	1	3
<b>B34E-How satisfied were you with your BBSI experience as a whole?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	77	78	280
<i>Mean</i>	<i>m</i>	3.7	3.59	3.60	3.65	3.64
Very Dissatisfied	%	0	2	1	1	1
Somewhat Dissatisfied	%	3	2	5	1	3
Somewhat Satisfied	%	23	33	26	28	28
Very Satisfied	%	73	64	68	69	69
Doesn't apply	%	0	0	0	0	0

Appendix C (Continued)

<b>C1A-To what extent did your interest in graduate work in bioengineering or biomedical engineering change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	76	77	279
<i>Mean</i>	<i>m</i>	3.51	3.58	3.50	3.55	3.53
Decreased a Lot	%	2 *	7	11	5	6
Decreased Somewhat	%	12	2 *	8	10	8
Had No Effect	%	32	34	25	26	29
Increased Somewhat	%	37	38	30	35	35
Increased a Lot	%	14	16	24	19	19
Have No Idea	%	3	3	3	4	3

  

<b>C1B-To what extent did your interest in graduate work in bioinformatics change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	76	278
<i>Mean</i>	<i>m</i>	3.55	3.27	3.15 *	3.52	3.37
Decreased a Lot	%	2 *	12	9	8	8
Decreased Somewhat	%	14	12	13	8	12
Had No Effect	%	32	38	42	25 *	34
Increased Somewhat	%	26	12 *	22	25	22
Increased a Lot	%	22	25	12 *	22	20
Have No Idea	%	5	2 *	3	12 **	5

  

<b>C1C-To what extent did your interest in graduate work in another engineering field change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	31	25	38	38	132
<i>Mean</i>	<i>m</i>	3.50	3.37	3.05	3.33	3.32
Decreased a Lot	%	0	0	5	3	2
Decreased Somewhat	%	3	0 *	5	3	3
Had No Effect	%	45	60 **	32	34	41
Increased Somewhat	%	6	4	3	5	5
Increased a Lot	%	16	12	8	11	11
Have No Idea	%	29	24	47	45	38

Appendix C (Continued)

<b>C1D-To what extent did your interest in graduate work in another science field change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	33	28	44	38	143
<i>Mean</i>	<i>m</i>	3.54	3.57	3.88	3.92	3.73
Decreased a Lot	%	0	4	0	0	1
Decreased Somewhat	%	6	0 *	7	3	4
Had No Effect	%	42	36	20	26	30
Increased Somewhat	%	12	21	5	8	10
Increased a Lot	%	18	14	27	26	22
Have No Idea	%	21	25	41	37	32
<b>C2A-What was your highest degree expectation before your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	77	78	281
Undecided	%	9	13	10	6	10
Associate of Arts	%	0	0	0	0	0
Bachelor's	%	11	7	19 **	9	12
Master's	%	23	28	12 *	17	19
PhD	%	45	36	36	49	42
MD	%	6	10	17 **	10	11
MD/PhD	%	5	5	5	5	5
MD and PhD	%	2	0	0	1	1
LLB or JD	%	0	0	0	0	0
Other	%	0	2	0	3	1
Any PhD	%	51	41	42	55	47
<b>C2B-What is your highest degree expectation today?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	61	77	78	280
Undecided	%	2	5	5	1	3
Associate of Arts	%	0	0	0	0	0
Bachelor's	%	2	3	6	4	4
Master's	%	19	20	17	13	17
PhD	%	52	49	45	62 **	52
MD	%	11	7	18 **	6	11
MD/PhD	%	3	7	4	4	4
MD and PhD	%	6	2	1	3	3
LLB or JD	%	2	3	1	3	2
Other	%	5	5	1	5	4
Any PhD	%	61	57	51	68 **	59

## Appendix C (Continued)

<b>CHANGE-Change in degree expectation (C2)</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Unclear change	%	8	10	10	8	9
Lowered expectations OR away from PhD	%	9	8	8	9	9
Horizontal shift	%	0 *	2	1	5	2
PhD unchanged	%	40	31	32	42	37
Other degree unchanged	%	9	13	19 **	8	12
Raised expectations	%	34	36	29	28	32
New PhD	%	22	26	18	28	23
<b>C3-Have you attended graduate school since your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	78	78	282
Yes	%	85 **	77 **	64	32 *	63
No	%	15 *	23 *	36	68 **	37
<b>C4-How helpful was your BBSI experience in preparing you for graduate school?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	55	47	49	25	176
<i>Mean</i>	<i>m</i>	<i>2.81</i>	<i>3.13</i>	<i>3.07</i>	<i>3.04</i>	<i>3.00</i>
Not at all helpful	%	7	0 *	4	0 *	3
Somewhat helpful	%	29	26	20	24	25
Fairly helpful	%	33	34	35	44	35
Extremely helpful	%	25	38	35	28	32
Have no idea	%	5	2	6	4	5
<b>C5A-Which degrees have you received?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	61	77	78	281
1st Bachelor's degree	%	98 **	98 **	97 **	74 *	91
2nd Bachelor's degree	%	22	11	14	9	14
1st Master's degree	%	34 **	33 **	16	9 *	22
2nd Master's degree	%	3	2	1	0 *	1
1st Professional degree	%	6	0 *	1	0 *	2
2nd Professional degree	%	0	0	0	0	0
1st Research doctorate	%	9 **	3	1	0 *	3
2nd Research doctorate	%	0	0	0	0	0
None of the above	%	2 *	2 *	3 *	26 **	9

Appendix C (Continued)

<b>C5C1-Major/specialty for first Bachelor's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	64	60	73	57	254
Bioinformatics	%	na	na	na	na	6
Bioengineering/biomedical engineering	%	na	na	na	na	19
Biology	%	na	na	na	na	12
Biochemistry	%	na	na	na	na	11
Biophysics	%	na	na	na	na	0.4
Other bio/med/health science	%	na	na	na	na	6
Chemistry	%	na	na	na	na	4
Physics	%	na	na	na	na	4
Math/statistics	%	na	na	na	na	7
Chemical engineering	%	na	na	na	na	5
Computer science/engineering	%	na	na	na	na	11
Electrical engineering	%	na	na	na	na	6
Mechanical engineering/mechanics	%	na	na	na	na	4
Other engineering	%	na	na	na	na	2
Other science field	%	na	na	na	na	3
Non-science field	%	na	na	na	na	0.8

Note: Fields were coded from verbatim entries. Individuals with double or triple majors were coded into a single major. Bioinformatics and bioengineering were taken over another major, and a science major was taken over a nonscience major. With these two exceptions, the first major stated was generally the one coded. Approximately 15% of student respondents reported more than one major for their first bachelor's degree.

<b>C5D1-Graduation year for first Bachelor's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	63	60	74	54	251
Before 2005	%	59 **	30	9 *	13 *	27
2005	%	38 **	28	8 *	6 *	20
2006	%	3 *	33	43 **	7 *	23
2007-2008	%	0 *	8 *	39 **	74 **	29

Appendix C (Continued)

<b>C5C2-Major/specialty for second Bachelor's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents		14	7	11	6	38
Bioinformatics	%	na	na	na	na	0
Bioengineering/biomedical engineering	%	na	na	na	na	0
Biology	%	na	na	na	na	13
Biochemistry	%	na	na	na	na	0
Biophysics	%	na	na	na	na	0
Other bio/med/health science	%	na	na	na	na	18
Chemistry	%	na	na	na	na	3
Physics	%	na	na	na	na	3
Math/statistics	%	na	na	na	na	21
Chemical engineering	%	na	na	na	na	3
Computer science/engineering	%	na	na	na	na	3
Electrical engineering	%	na	na	na	na	8
Mechanical engineering/mechanics	%	na	na	na	na	3
Other engineering	%	na	na	na	na	0
Other science field	%	na	na	na	na	8
Non-science field	%	na	na	na	na	18

Note: Fields were coded from verbatim entries. Individuals with double or triple majors were coded into a single major. Bioinformatics and bioengineering were taken over another major, and a science major was taken over a nonscience major. With these two exceptions, the first major stated was generally the one coded. Approximately 3% of student respondents reported more than one major for their second bachelor's degree.

<b>C5D2-Graduation year for second Bachelor's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	14	7	11	5	37
Before 2005	%	71 **	14	0 *	0 *	30
2005	%	29	43	18	0 *	24
2006	%	0 *	29	36	20	19
2007-2008	%	0 *	14	45	80 **	27

Appendix C (Continued)

<b>C5C3-Major/specialty for first Master's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	22	20	11	7	60
Bioinformatics	%	na	na	na	na	13
Bioengineering/biomedical engineering	%	na	na	na	na	17
Biology	%	na	na	na	na	0
Biochemistry	%	na	na	na	na	2
Biophysics	%	na	na	na	na	0
Other bio/med/health science	%	na	na	na	na	17
Chemistry	%	na	na	na	na	5
Physics	%	na	na	na	na	5
Math/statistics	%	na	na	na	na	8
Chemical engineering	%	na	na	na	na	2
Computer science/engineering	%	na	na	na	na	8
Electrical engineering	%	na	na	na	na	12
Mechanical engineering/mechanics	%	na	na	na	na	5
Other engineering	%	na	na	na	na	2
Other science field	%	na	na	na	na	0
Non-science field	%	na	na	na	na	5

Note: Fields were coded from verbatim entries. Individuals who reported two or three fields were coded into a single field. Bioinformatics and bioengineering were taken over another field, and a science field was taken over a nonscience field. With these two exceptions, the first field stated was generally the one coded. Approximately 5% of student respondents reported more than one field for their first master's degree.

<b>C5D3-Graduation year for first Master's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	21	18	12	6	57
Before 2005	%	33	17	17	0 *	21
2005	%	5	11	0	0	5
2006	%	24	28	25	0 *	23
2007-2008	%	38	44	58	100 **	51

Appendix C (Continued)

<b>C5C4-Major/specialty for second Master's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	2	1	1	0	4
Bioinformatics	%	na	na	na	na	67
Bioengineering/biomedical engineering	%	na	na	na	na	0
Biology	%	na	na	na	na	0
Biochemistry	%	na	na	na	na	0
Biophysics	%	na	na	na	na	0
Other bio/med/health science	%	na	na	na	na	33
Chemistry	%	na	na	na	na	0
Physics	%	na	na	na	na	0
Math/statistics	%	na	na	na	na	0
Chemical engineering	%	na	na	na	na	0
Computer science/engineering	%	na	na	na	na	0
Electrical engineering	%	na	na	na	na	0
Mechanical engineering/mechanics	%	na	na	na	na	0
Other engineering	%	na	na	na	na	0
Other science field	%	na	na	na	na	0
Non-science field	%	na	na	na	na	0

Note: Fields were coded from verbatim entries. Individuals who reported two or three fields were coded into a single field. Bioinformatics and bioengineering were taken over another field, and a science field was taken over a nonscience field. With these two exceptions, the first field stated was generally the one coded. One of the three student respondents with a second master's degree reported more than one field.

<b>C5D4-Graduation year for second Master's degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	2	1	1	0	4
Before 2005	%	0	0	0	0	0
2005	%	0	0	0	0	0
2006	%	50	100	100	0	75
2007-2008	%	50	0	0	0	25

Appendix C (Continued)

<b>C5C5-Major/specialty for first professional degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	4	0	1	0	5
Bioinformatics	%	na	na	na	na	0
Bioengineering/biomedical engineering	%	na	na	na	na	0
Biology	%	na	na	na	na	0
Biochemistry	%	na	na	na	na	0
Biophysics	%	na	na	na	na	0
Other bio/med/health science	%	na	na	na	na	80
Chemistry	%	na	na	na	na	0
Physics	%	na	na	na	na	0
Math/statistics	%	na	na	na	na	0
Chemical engineering	%	na	na	na	na	0
Computer science/engineering	%	na	na	na	na	0
Electrical engineering	%	na	na	na	na	0
Mechanical engineering/mechanics	%	na	na	na	na	0
Other engineering	%	na	na	na	na	0
Other science field	%	na	na	na	na	0
Non-science field	%	na	na	na	na	20

Note: Fields were coded from verbatim entries. No student respondents reported more than one field for their first professional degree.

<b>C5D5-Graduation year for first professional degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	3	0	1	0	4
Before 2005	%	0	0	0	0	0
2005	%	0	0	0	0	0
2006	%	0	0	100	0	25
2007-2008	%	100	0	0	0	75

<b>C5C6-Major/specialty for second professional degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	0	0	0	0	0
All fields	%	100	100	100	100	100

<b>C5D6-Graduation year for second professional degree</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	0	0	0	0	0
All years	%	100	100	100	100	100

Appendix C (Continued)

<b>C5C7-Major/specialty for first research doctorate</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	6	2	1	0	9
Bioinformatics	%	na	na	na	na	11
Bioengineering/biomedical engineering	%	na	na	na	na	0
Biology	%	na	na	na	na	0
Biochemistry	%	na	na	na	na	11
Biophysics	%	na	na	na	na	33
Other bio/med/health science	%	na	na	na	na	0
Chemistry	%	na	na	na	na	11
Physics	%	na	na	na	na	0
Math/statistics	%	na	na	na	na	0
Chemical engineering	%	na	na	na	na	22
Computer science/engineering	%	na	na	na	na	0
Electrical engineering	%	na	na	na	na	0
Mechanical engineering/mechanics	%	na	na	na	na	0
Other engineering	%	na	na	na	na	11
Other science field	%	na	na	na	na	0
Non-science field	%	na	na	na	na	0

Note: Fields were coded from verbatim entries. No student respondents reported more than one field for their first research doctorate.

<b>C5D7-Graduation year for first research doctorate</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	6	2	0	0	8
Before 2005	%	0	0	0	0	0
2005	%	0	0	0	0	0
2006	%	17	0	0	0	13
2007-2008	%	83	100	0	0	88

<b>C5C8-Major/specialty for second research doctorate</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	0	0	0	0	0
All fields	%	100	100	100	100	100

<b>C5D8-Graduation year for second research doctorate</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	0	0	0	0	0
All years	%	100	100	100	100	100

## Appendix C (Continued)

<b>C6A-Are you currently enrolled in a ...?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	59	77	73	274
1st Graduate program	%	55	63	65 **	38 *	55
2nd Graduate program	%	2	2	1	0	1
Undergraduate program	%	2 *	2 *	1 *	29 **	9
None of the above	%	43	36	34	33	36
<b>C6B1-Type of 1st current graduate program</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	36	37	50	28	151
Master	%	3 *	14	24	21	16
Professional	%	11	22	22	11	17
Research doctorate	%	78 **	62	52	64	63
MD/PhD	%	8	3	2	4	4
<b>C6C1-Major/specialty of first current graduate program</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	35	37	48	25	145
Bioinformatics	%	na	na	na	na	12
Bioengineering/biomedical engineering	%	na	na	na	na	21
Biology	%	na	na	na	na	6
Biochemistry	%	na	na	na	na	2
Biophysics	%	na	na	na	na	3
Other bio/med/health science	%	na	na	na	na	26
Chemistry	%	na	na	na	na	3
Physics	%	na	na	na	na	3
Math/statistics	%	na	na	na	na	3
Chemical engineering	%	na	na	na	na	4
Computer science/engineering	%	na	na	na	na	4
Electrical engineering	%	na	na	na	na	2
Mechanical engineering/mechanics	%	na	na	na	na	4
Other engineering	%	na	na	na	na	1
Other science field	%	na	na	na	na	1
Non-science field	%	na	na	na	na	5

Note: Fields were coded from verbatim entries. Individuals who reported two or three fields were coded into a single field. Bioinformatics and bioengineering were taken over another field, and a science field was taken over a nonscience field. With these two exceptions, the first field stated was generally the one coded. Approximately 10% of student respondents currently enrolled in their first graduate program reported more than one field.

## Appendix C (Continued)

<b>C6B2-Type of 2nd current graduate program</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	1	1	1	0	3
Master	%	0	100	0	0	33
Professional	%	0	0	0	0	0
Research doctorate	%	100	0	100	0	67
MD/PhD	%	0	0	0	0	0

<b>C6C2-Major/specialty of second current graduate program</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	1	1	1	0	3
Bioinformatics	%	na	na	na	na	0
Bioengineering/biomedical engineering	%	na	na	na	na	0
Biology	%	na	na	na	na	0
Biochemistry	%	na	na	na	na	33
Biophysics	%	na	na	na	na	0
Other bio/med/health science	%	na	na	na	na	33
Chemistry	%	na	na	na	na	0
Physics	%	na	na	na	na	33
Math/statistics	%	na	na	na	na	0
Chemical engineering	%	na	na	na	na	0
Computer science/engineering	%	na	na	na	na	0
Electrical engineering	%	na	na	na	na	0
Mechanical engineering/mechanics	%	na	na	na	na	0
Other engineering	%	na	na	na	na	0
Other science field	%	na	na	na	na	0
Non-science field	%	na	na	na	na	0

Note: Fields were coded from verbatim entries. Individuals who reported two or three fields were coded into a single field. Bioinformatics and bioengineering were taken over another field, and a science field was taken over a nonscience field. With these two exceptions, the first field stated was generally the one coded. One of the three student respondents currently enrolled in a second graduate program reported more than one field.

<b>C6B3-Current undergraduate level</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	1	1	1	21	24
Freshman	%	0	0	0	0	0
Sophomore	%	0	0	0	5	4
Junior	%	0	0	0	10	8
Senior	%	100	100	100	86	88

Appendix C (Continued)

<b>C6C3-Major/specialty of current undergraduate program</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	1	1	1	21	24
Bioinformatics	%	na	na	na	na	8
Bioengineering/biomedical engineering	%	na	na	na	na	33
Biology	%	na	na	na	na	13
Biochemistry	%	na	na	na	na	8
Biophysics	%	na	na	na	na	0
Other bio/med/health science	%	na	na	na	na	0
Chemistry	%	na	na	na	na	4
Physics	%	na	na	na	na	4
Math/statistics	%	na	na	na	na	4
Chemical engineering	%	na	na	na	na	4
Computer science/engineering	%	na	na	na	na	8
Electrical engineering	%	na	na	na	na	0
Mechanical engineering/mechanics	%	na	na	na	na	0
Other engineering	%	na	na	na	na	4
Other science field	%	na	na	na	na	4
Non-science field	%	na	na	na	na	4

Note: Fields were coded from verbatim entries. Individuals who reported two or three fields were coded into a single field. Bioinformatics and bioengineering were taken over another field, and a science field was taken over a nonscience field. With these two exceptions, the first field stated was generally the one coded.

Approximately 17% of student respondents currently enrolled in an undergraduate program reported more than one field.

<b>D1A-To what extent did your interest in a career in bioengineering or biomedical engineering change as a result of your BBSI experience?</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	77	279
<i>Mean</i>	<i>m</i>	3.48	3.56	3.53	3.51	3.52
Decreased a Lot	%	3	5	9	5	6
Decreased Somewhat	%	12	3 *	8	10	9
Had No Effect	%	32	35	27	31	31
Increased Somewhat	%	29	37	27	31	31
Increased a Lot	%	17	15	25	19	19
Have No Idea	%	6	5	4	3	4

## Appendix C (Continued)

**D1B-To what extent did your interest in a career in bioinformatics change as a result of your BBSI experience?**

		2003	2004	2005	2006	All
Number of respondents	N	64	61	76	76	277
<i>Mean</i>	<i>m</i>	3.48	3.27	3.14	3.39	3.31
Decreased a Lot	%	2 *	11	12	8	8
Decreased Somewhat	%	14	11	11	9	11
Had No Effect	%	39	34	36	33	35
Increased Somewhat	%	20	21	29	24	24
Increased a Lot	%	22	20	9 *	18	17
Have No Idea	%	3	2	4	8	4

**D1C-To what extent did your interest in a career in another engineering field change as a result of your BBSI experience?**

		2003	2004	2005	2006	All
Number of respondents	N	26	27	46	41	140
<i>Mean</i>	<i>m</i>	3.52	3.10	3.00	3.32	3.22
Decreased a Lot	%	0 *	0 *	7	2	3
Decreased Somewhat	%	4	4	7	2	4
Had No Effect	%	50	63	41	44	48
Increased Somewhat	%	8	4	2	10	6
Increased a Lot	%	19	4	9	10	10
Have No Idea	%	19	26	35	32	29

**D1D-To what extent did your interest in a career in another science field change as a result of your BBSI experience?**

		2003	2004	2005	2006	All
Number of respondents	N	28	30	48	43	149
<i>Mean</i>	<i>m</i>	3.57	3.27	3.28	3.74	3.47
Decreased a Lot	%	0 *	3	2	2	2
Decreased Somewhat	%	4	3	8	2	5
Had No Effect	%	50	50	40	35	42
Increased Somewhat	%	7	3	2	5	4
Increased a Lot	%	21	13	15	28	19
Have No Idea	%	18	27	33	28	28

Appendix C (Continued)

<b>D1E-To what extent did your interest in a career at a college/university change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	63	60	77	76	276
<i>Mean</i>	<i>m</i>	3.73	3.69	3.57	3.70	3.67
Decreased a Lot	%	0 *	3	5	4	3
Decreased Somewhat	%	8	10	9	12	10
Had No Effect	%	25	23	27	14 *	22
Increased Somewhat	%	46	38	39	46	42
Increased a Lot	%	16	23	18	21	20
Have No Idea	%	5	2	1	3	3

<b>D1F-To what extent did your interest in a career in industry or other for-profit organization change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	63	60	78	77	278
<i>Mean</i>	<i>m</i>	3.52	3.66	3.79	3.60	3.65
Decreased a Lot	%	0	0	1	0	< 1
Decreased Somewhat	%	3	2	5	9	5
Had No Effect	%	44	45	33	34	38
Increased Somewhat	%	38	35	31	38	35
Increased a Lot	%	6 *	15	27 **	14	16
Have No Idea	%	8	3	3	5	5

<b>D1G-To what extent did your interest in a career at a non-profit organization change as a result of your BBSI experience?</b>						
		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	63	60	77	76	276
<i>Mean</i>	<i>m</i>	3.16	3.23	3.26	3.20	3.21
Decreased a Lot	%	0	2	3	1	1
Decreased Somewhat	%	0	0	3	1	1
Had No Effect	%	73	65	58	70	66
Increased Somewhat	%	14	20	23	17	19
Increased a Lot	%	0 *	2	4	3	2
Have No Idea	%	13	12	9	8	10

## Appendix C (Continued)

**D1H-To what extent did your interest in a career in government change as a result of your BBSI experience?**

		2003	2004	2005	2006	All
Number of respondents	N	63	60	76	76	275
<i>Mean</i>	<i>m</i>	3.30	3.21	3.35	3.29	3.29
Decreased a Lot	%	0	2	1	1	1
Decreased Somewhat	%	2	0	3	3	2
Had No Effect	%	65	70	63	63	65
Increased Somewhat	%	19	12	17	18	17
Increased a Lot	%	5	5	11	7	7
Have No Idea	%	10	12	5	8	8

**D2-Excluding student employment such as research/teaching assistantships and internships, have you applied for one or more jobs related to bioengineering or bioinformatics since your BBSI experience?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
Yes	%	20	26	26	18	22
No	%	80	74	74	82	78

**D3-Have you held one or more jobs related to bioengineering or bioinformatics since your BBSI experience?**

		2003	2004	2005	2006	All
Number of respondents	N	13	16	20	14	63
Yes	%	62	81	45	64	62
No	%	38	19	55	36	38

**D4-How helpful do you think your BBSI experience was in preparing you for any of the jobs related to bioengineering or bioinformatics that you have held?**

		2003	2004	2005	2006	All
Number of respondents	N	8	13	9	9	39
<i>Mean</i>	<i>m</i>	2.75	3.00	3.13	3.00	2.97
Not at all helpful	%	13	8	0	0	5
Somewhat helpful	%	38	15	11	11	18
Fairly helpful	%	13 *	46	56	67	46
Extremely helpful	%	38	31	22	11	26
Have no idea	%	0	0	11	11	5

## Appendix C (Continued)

**D5-Excluding student employment such as research/teaching assistantships and internships, are you currently employed (in any field)?**

		2003	2004	2005	2006	All
Number of respondents	N	65	61	78	78	282
Yes	%	34	41	38	26 *	34
No	%	66	59	62	74 **	66

**D6-Which field(s) best describe the work you do in your current job(s)?**

		2003	2004	2005	2006	All
Number of respondents	N	21	25	30	20	96
Bioengineering/biomedical engineering *	%	na	na	na	na	17
Bioinformatics *	%	na	na	na	na	13
Both fields *	%	na	na	na	na	1
Other field(s) *	%	na	na	na	na	70

\* na = not available. Some of the 'other field' verbatims were recoded into bioengineering or bioinformatics. Recoding was done only in the aggregate, not by year.

**D7-By which of the following kinds of organizations are you currently employed?**

		2003	2004	2005	2006	All
Number of respondents	N	22	24	29	19	94
College/university (excluding student employment)	%	na	na	na	na	23
Industry/for-profit organization	%	na	na	na	na	55
Non-profit organization	%	na	na	na	na	18
Government	%	na	na	na	na	17
Other	%	na	na	na	na	2

Note: %s sum to more than 100% because multiple responses were allowed.

**E1-What is your age?**

		2003	2004	2005	2006	All
Number of respondents	N	65	59	77	78	279
Mean	<i>m</i>	26.20 **	25.75	24.66	23.23 *	24.85
19 to 22	%	0 *	5 *	14	53 **	20
23	%	0 *	25	30 **	18	19
24	%	9 *	25	34 **	9 *	19
25	%	40 **	19	8 *	6 *	17
26 or older	%	51 **	25	14 *	14 *	25

## Appendix C (Continued)

<b>E2-What is your sex?</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	77	78	280
Male	%	54	53	58	53	55
Female	%	46	47	42	47	45
<b>E3-What is your citizenship status?</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	65	60	76	78	279
U.S. citizen since birth	%	85	83	84	79	83
U.S. citizen naturalized	%	14	15	9	14	13
Non-U.S. citizen with a permanent U.S. resident visa ("Green Card")	%	2	2	7	5	4
Non-U.S. citizen with a temporary U.S. visa	%	0	0	0	1	< 1
<b>E4-Are you Hispanic or Latino?</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	63	59	76	77	275
Yes	%	5	0 *	9	8	6
No	%	95	100 **	91	92	94
<b>E5-What is your racial background?</b>		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>All</b>
Number of respondents	N	62	59	72	71	264
American Indian or Alaska Native	%	0	0	1	0	< 1
Asian	%	21	29	19	24	23
Black or African-American	%	6	10	7	6	7
White	%	73	66	76	70	72
Native Hawaiian or other Pacific Islander	%	0	0	1	3	1