Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey

Student Engagement & Development

In Spring 2004, the Office of Institutional Research conducted a one-year follow-up survey of the 1,772 alumni who received a Bachelor's degree in calendar year 2003. Three mailings of the survey resulted in a response rate of 23.5% and a final sample of 416 respondents.

As part of this survey, alumni were asked to respond to a series of questions regarding student engagement and development at UMBC. These questions were culled with permission from the National Survey of Student Engagement (NSSE), a research effort in which UMBC participated in 2001 and 2004. NSSE is a national survey of first-year and senior level undergraduate students at both public and private four-year institutions. Piloted in 2000, the project is housed at the Center for Post-Secondary Research & Planning at Indiana University and is directed by Dr. George Kuh, Chancellor's Professor of Education. The NSSE attempts to gauge the extent to which colleges are providing educational experiences associated with important learning and personal development outcomes for their students.

The NSSE questions used here are separated into three different student development areas - Knowledge, Skills, and Personal - with five questions in each category. Several of the questions align with MHEC and Middle States student learning outcomes assessment guidelines. Alumni were asked the extent to which their UMBC education contributed to these areas, with responses ranging from Very Much to Very Little (Table 1). Chart 1 shows the percent responding "Very Much" or "Quite a Bit" to each question, as well as the percent indicating "Not Applicable." UMBC's influence appears to be felt most strongly in the Knowledge area, with a majority indicating that UMBC contributed "very much" or "quite a bit" to "acquiring a broad general education" (79%) and "thinking critically and analytically" (78%). In this area, the item "acquiring job or work-related knowledge and skills" had the lowest percent responding "very much" or "quite a bit", although a majority of respondents still indicated this level of UMBC influence (58%).

The two items that scored the lowest are found in the Personal Development category, "contributing to the welfare of your community" and "fulfilling your civic duty by voting in local, state and national elections," with 36% and 18% responding "very much" or "quite a bit", respectively. It should be noted, however, that these items also had relatively high numbers indicating "not applicable" (9% and 22%). In the Personal area, about two-thirds of respondents indicated that UMBC contributed "very much" or "quite a bit" to "working effectively with others" (64%) and "understanding people of other racial and ethnic backgrounds" (67%), both reflecting UMBC's commitment to promoting diversity on campus.

Under Skills, alumni rated UMBC's contribution highest for "writing clearly and effectively" (61%), followed by "using computing and information technology" (57%). "Designing and conducting experiments" had the lowest percent responding "very much" or "quite a bit" (38%), although 16% indicated this item was not applicable. About half of the respondents indicated that UMBC contributed "very much" or "quite a bit" to "solving complex real world problems" and "speaking clearly and effectively."

Table 2 indicates the extent of UMBC's contribution to knowledge, skills and personal development by program area. Those eight items for which substantial differences exist are shown graphically in Chart 2. Although data for Interdisciplinary Studies alumni are shown, the small number of graduates (n=8) in this program area does not support their inclusion in these comparisons. An interesting finding is the relatively low scores of Math & Sciences alumni on several of these measures compared to alumni in other areas. Indeed, graduates in this program

area were less likely to indicate that UMBC contributed "very much" or "quite a bit" in the following areas: "acquiring a broad general education", " learning effectively on your own", "writing clearly and effectively", "speaking clearly and effectively", "working effectively with others", and "understanding yourself." Students in Engineering, Computer & Information Sciences also tended to rate the contribution of UMBC to most of these items lower than students in the Arts & Humanities and Social Sciences, except for "using computing and information technology", where they had the highest percentage of any program area rating this as "very much" or "quite a bit."

Differences by matriculation type (new freshmen vs. transfers) and program area are found in Tables 3 and 4. The marked differences by program area can also be seen here, with some notable differences between new freshmen and transfers (Table 5). Specifically, for the item "analyzing quantitative problems", new freshmen in the Math & Sciences[1] were significantly more likely (Chi-Square test, $p<.05$) than transfer students to report that UMBC contributed "very much" or "quite a bit" (88% vs. 46%), while the opposite is true for the Social Sciences, where transfer students reported a greater contribution (63% vs. 54% for new freshmen). New freshmen in the Math & Sciences reported significantly greater contributions than did transfer students for three additional items: "solving complex real world problems", "designing and conducting experiments", and "working effectively with others". In the Social Sciences, those transferring to UMBC were significantly more likely than new freshmen to report that UMBC contributed to "fulfilling your civic duty by voting in local, state and national elections", or that this item was not applicable. Finally, new freshmen in the Arts & Humanities were significantly more likely than transfer students to indicate a greater contribution to "speaking clearly and effectively" (68% vs. 42%) and "fulfilling you civic duty by voting in local, state and national elections" (23% vs. 17%). Also, for this latter item, transfer students were more likely to indicate "not applicable" (32% vs. 12%).

There were some additional apparent differences by matriculation type and program area, although these differences were not found to be statistically significant. For example, new freshmen in Engineering, Computer & Information Sciences were more likely than their transfer counterparts to indicate that UMBC contributed to "acquiring job or work-related knowledge and skills" (71% vs. 58%). The same is true for "learning effectively on your own" (73% vs. 65%) and "thinking critically and analytically" (78% vs. 72%). However, transfers in this program area gave more credit to UMBC for their skills in "writing...and speaking…clearly and effectively" than those entering the institution as new freshmen. UMBC's contribution to diversity, measured by the item "understanding people of other racial and ethnic backgrounds," appears to be stronger for those matriculating as new freshmen for all program areas. The same is true for the item "understanding yourself."

Analyses of these student engagement and development data from the one-year follow-up survey of 2003 bachelor's degree recipients indicate that differences exist in the contribution of UMBC to these areas of student development, particularly by program area and matriculation type. Graduates of programs in the Math & Sciences, in particular, were apt to indicate that UMBC did not contribute as much to their development compared to students in other program areas. Differences found by matriculation type could be attributable to different expectations these students have for UMBC. Indeed, for a good number of these engagement items, transfers to UMBC were more apt than new freshmen to indicate that the item was "not applicable". There are also likely to be differences in the experiences of new freshmen and those who transfer to the institution. For example, transfer students tend to be older than their new freshmen counterparts, and are more likely to just be taking upper level courses and courses within their major. Also, programs such as the First Year Seminars and other interventions directed at new freshmen and

[1] Results for New Freshmen vs. Transfer Students in the Math & Sciences should be interpreted with caution given the small number (n=13) of transfer students in the Math & Sciences.

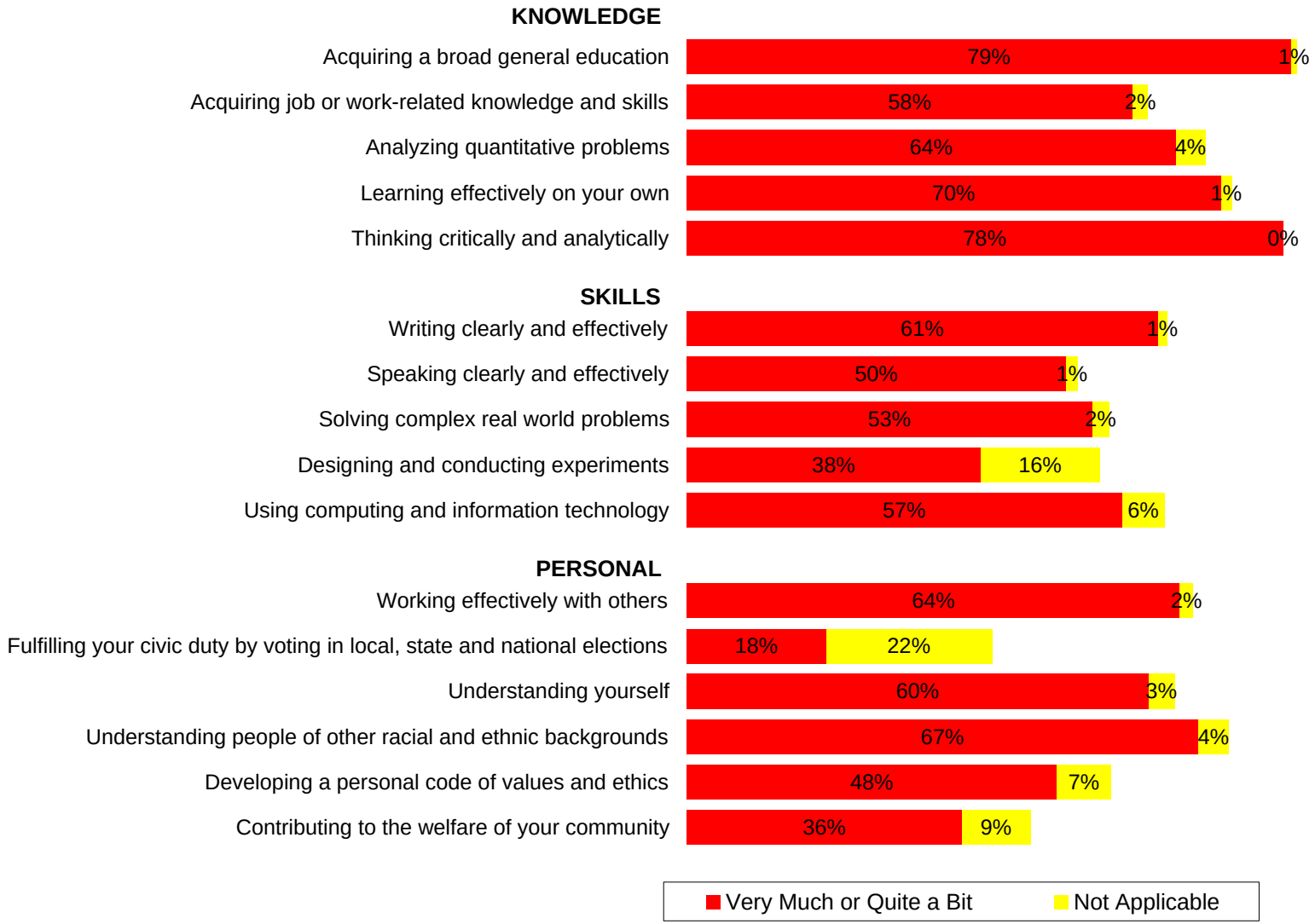
the first year college experience might be expected to affect some of these engagement measures. Finally, it should be noted that the students responding to this alumni survey attended UMBC in potentially different timeframes. That is, the alumni, while from one graduating class, did not enter UMBC in the same term, and attended the university for varying lengths of time. Also, some attended full-time, while others were part-time students. Some attended classes only in the evening. Some may have attended prior to the availability of current first year interventions. These time and attendance differences could also be reflected in the differential engagement of UMBC alumni. However, the variation in engagement found by program area and matriculation type point to potential areas of intervention as UMBC strives to enhance the knowledge, skills and personal development of all its students.

Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey
STUDENT ENGAGEMENT QUESTIONS

TABLE 1: TO WHAT EXTENT HAS YOUR UMBC EDUCATION CONTRIBUTED TO YOUR KNOWLEDGE, SKILLS, AND PERSONAL DEVELOPMENT IN THE FOLLOWING AREAS?

		Very Much or Quite a Bit		Some or Very Little		Not Applicable		
		#	%	#	%	#	%	TOTAL
KNOWLEDGE								
1	Acquiring a broad general education	328	79%	85	20%	3	1%	416
2	Acquiring job or work-related knowledge and skills	241	58%	165	40%	8	2%	414
3	Analyzing quantitative problems	264	64%	134	32%	16	4%	414
4	Learning effectively on your own	289	70%	120	29%	6	1%	415
5	Thinking critically and analytically	322	78%	92	22%	0	0%	414
SKILLS								
6	Writing clearly and effectively	255	61%	155	37%	5	1%	415
7	Speaking clearly and effectively	204	50%	202	49%	6	1%	412
8	Solving complex real world problems	218	53%	185	45%	9	2%	412
9	Designing and conducting experiments	158	38%	190	46%	64	16%	412
10	Using computing and information technology	235	57%	156	38%	23	6%	414
PERSONAL								
11	Working effectively with others	267	64%	141	34%	7	2%	415
12	Fulfilling your civic duty by voting in local, state and national elections	75	18%	248	60%	89	22%	412
13	Understanding yourself	250	60%	151	36%	14	3%	415
14	Understanding people of other racial and ethnic backgrounds	275	67%	121	29%	16	4%	412
15	Developing a personal code of values and ethics	200	48%	185	45%	29	7%	414
16	Contributing to the welfare of your community	149	36%	229	55%	37	9%	415

Chart 1: Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey
Student Engagement: UMBC Education Contribution to Student Development



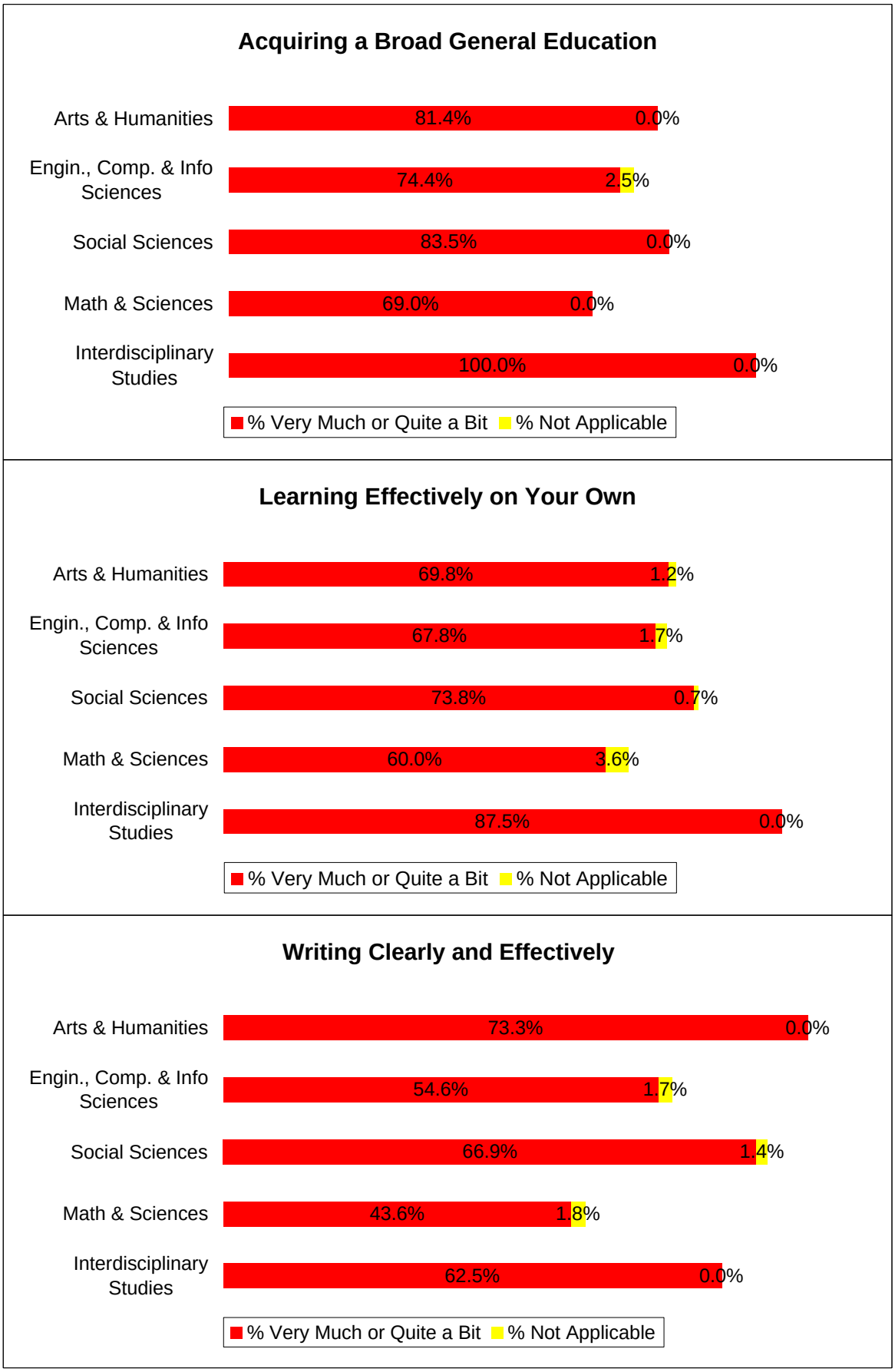
Prepared by: UMBC Office of Institutional Research, 3/05.

Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey
STUDENT ENGAGEMENT QUESTIONS BY PROGRAM AREA

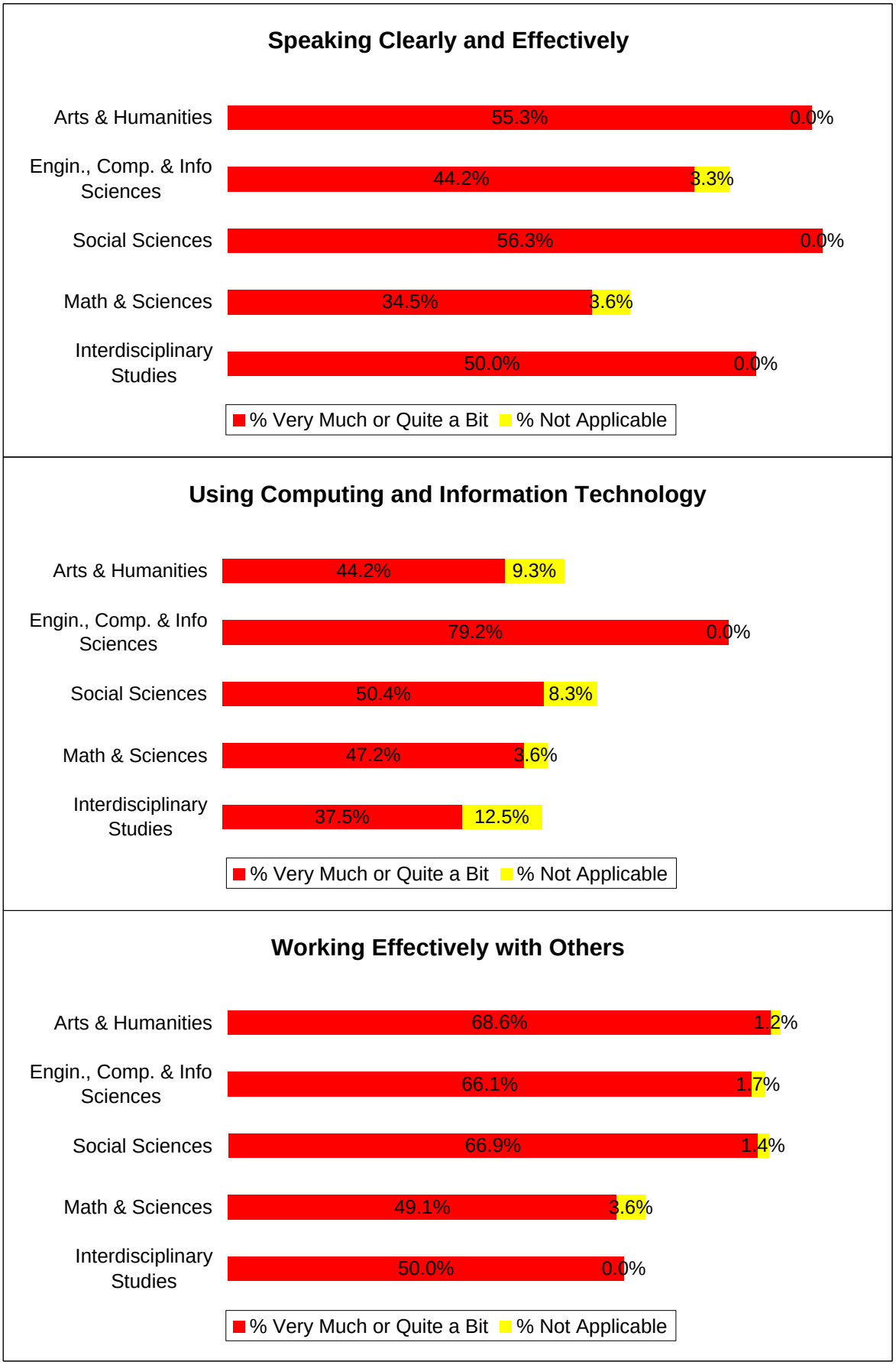
TABLE 2: TO WHAT EXTENT HAS YOUR UMBC EDUCATION CONTRIBUTED TO YOUR KNOWLEDGE, SKILLS, AND PERSONAL DEVELOPMENT IN THE FOLLOWING AREAS? PERCENT REPORTING VERY MUCH & QUITE A BIT OR NOT APPLICABLE BY PROGRAM AREA

		Program Area									
		Arts & Humanities (n=86)		Engin., Comp. & Info. Sciences (n=121)		Social Sciences (n=145)		Math & Sciences (n=55)		Interdisciplinary Studies (n=8)	
		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
KNOWLEDGE											
1	Acquiring a broad general education	81.4%	0.0%	74.4%	2.5%	83.5%	0.0%	69.0%	0.0%	100.0%	0.0%
2	Acquiring job or work-related knowledge and skills	57.6%	1.2%	62.8%	1.7%	55.2%	1.4%	56.4%	3.6%	62.5%	12.5%
3	Analyzing quantitative problems	50.0%	11.6%	72.7%	0.0%	58.3%	4.2%	67.3%	0.0%	75.0%	0.0%
4	Learning effectively on your own	69.8%	1.2%	67.8%	1.7%	73.8%	0.7%	60.0%	3.6%	87.5%	0.0%
5	Thinking critically and analytically	82.6%	0.0%	74.2%	0.0%	75.8%	0.0%	80.0%	0.0%	100.0%	0.0%
SKILLS											
6	Writing clearly and effectively	73.3%	0.0%	54.6%	1.7%	66.9%	1.4%	43.6%	1.8%	62.5%	0.0%
7	Speaking clearly and effectively	55.3%	0.0%	44.2%	3.3%	56.3%	0.0%	34.5%	3.6%	50.0%	0.0%
8	Solving complex real world problems	47.6%	6.0%	60.0%	0.0%	51.7%	2.1%	47.3%	1.8%	62.5%	0.0%
9	Designing and conducting experiments	19.8%	30.2%	39.5%	10.9%	44.5%	12.5%	52.8%	3.6%	12.5%	62.5%
10	Using computing and information technology	44.2%	9.3%	79.2%	0.0%	50.4%	8.3%	47.2%	3.6%	37.5%	12.5%
PERSONAL											
11	Working effectively with others	68.6%	1.2%	66.1%	1.7%	66.9%	1.4%	49.1%	3.6%	50.0%	0.0%
12	Fulfilling your civic duty by voting in local, state and national elections	19.7%	22.1%	9.2%	29.4%	27.1%	16.0%	9.1%	20.0%	37.5%	12.5%
13	Understanding yourself	68.6%	1.2%	48.0%	4.1%	71.1%	2.8%	43.7%	7.3%	75.0%	0.0%
14	Understanding people of other racial and ethnic backgrounds	69.4%	2.4%	56.6%	5.8%	75.7%	3.5%	60.0%	1.8%	75.0%	12.5%
15	Developing a personal code of values and ethics	50.0%	7.0%	38.9%	9.9%	59.1%	4.2%	40.0%	7.3%	37.5%	12.5%
16	Contributing to the welfare of your community	40.7%	7.0%	23.1%	15.7%	44.8%	4.8%	32.7%	7.3%	37.5%	12.5%

CHART 2: STUDENT ENGAGEMENT BY PROGRAM AREA
UMBC EDUCATION CONTRIBUTION TO:



Prepared by: UMBC Office of Institutional Research, 3/05.



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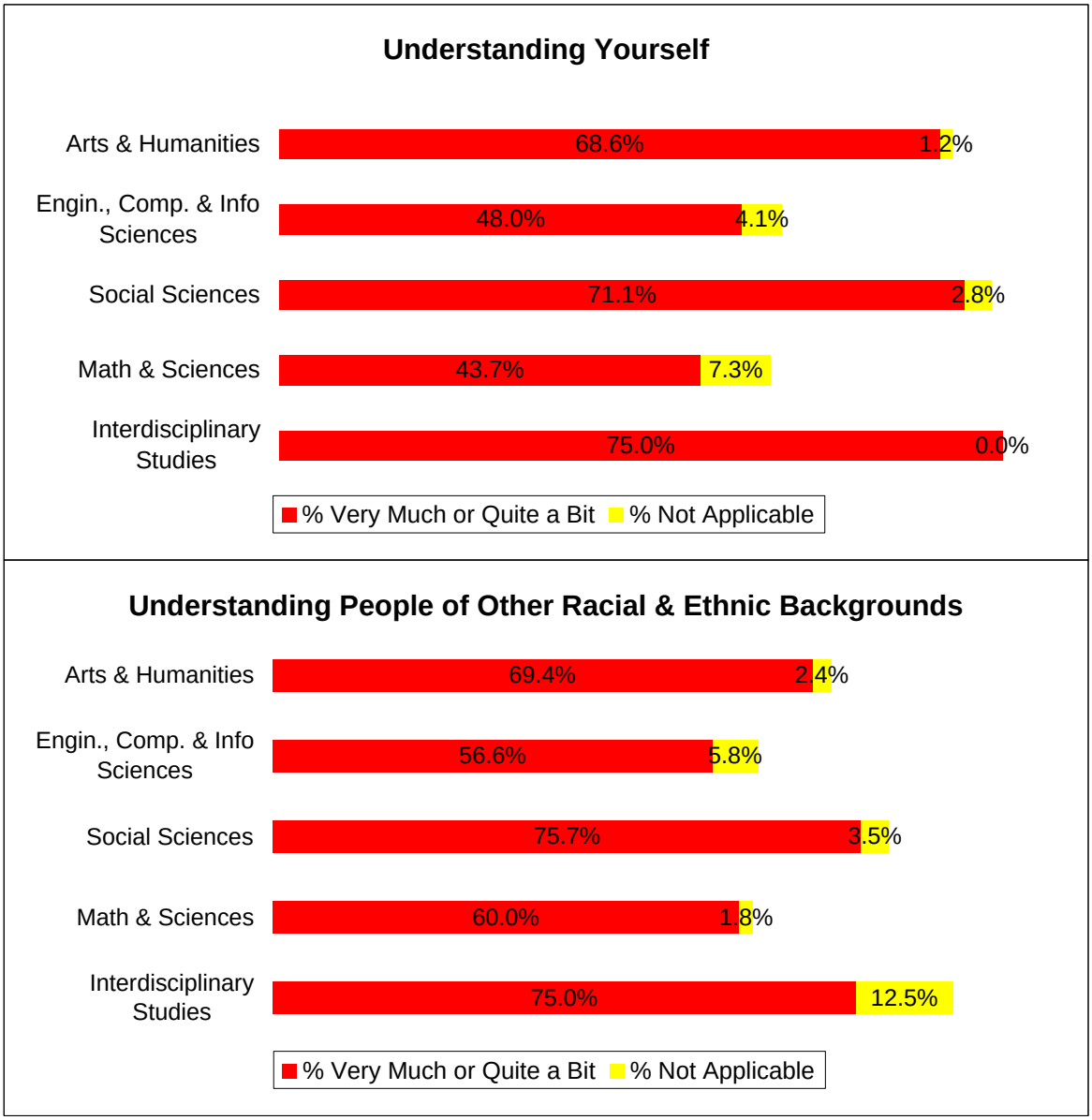
Understanding Yourself
Arts & Humanities
68.6%
1.2%
Engin., Comp. & Info Sciences
48.0%
4.1%
Social Sciences
71.1%
2.8%
Math & Sciences
43.7%
7.3%
Interdisciplinary Studies
75.0%
0.0%
% Very Much or Quite a Bit
% Not Applicable
Understanding People of Other Racial & Ethnic Backgrounds
Arts & Humanities
69.4%
2.4%
Engin., Comp. & Info Sciences
56.6%
5.8%
Social Sciences
75.7%
3.5%
Math & Sciences
60.0%
1.8%
Interdisciplinary Studies
75.0%
12.5%
% Very Much or Quite a Bit
% Not Applicable

Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey
STUDENT ENGAGEMENT QUESTIONS BY PROGRAM AREA AND ORIGINAL MATRICULATION TYPE

TABLE 3: TO WHAT EXTENT HAS YOUR UMBC EDUCATION CONTRIBUTED TO YOUR KNOWLEDGE, SKILLS, AND PERSONAL DEVELOPMENT IN THE FOLLOWING AREAS? PERCENT REPORTING VERY MUCH & QUITE A BIT OR NOT APPLICABLE BY PROGRAM AREA- NEW FRESHMEN ONLY

		Program Area									
		Arts & Humanities (n=42)		Engin., Comp. & Info. Sciences (n=45)		Social Sciences (n=76)		Math & Sciences (n=42)		Interdisciplinary Studies (n=5)	
		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
KNOWLEDGE											
1	Acquiring a broad general education	80.9%	2.4%	73.3%	2.2%	82.9%	1.3%	76.2%	2.4%	100.0%	0.0%
2	Acquiring job or work-related knowledge and skills	59.5%	0.0%	71.1%	0.0%	51.3%	0.0%	59.5%	4.8%	60.0%	0.0%
3	Analyzing quantitative problems	47.7%	4.8%	77.7%	0.0%	53.9%	2.6%	88.1%	0.0%	80.0%	0.0%
4	Learning effectively on your own	69.1%	0.0%	73.4%	0.0%	71.0%	1.3%	66.6%	2.4%	80.0%	0.0%
5	Thinking critically and analytically	78.6%	4.8%	77.7%	2.2%	72.4%	3.9%	85.7%	0.0%	100.0%	0.0%
SKILLS											
6	Writing clearly and effectively	66.7%	0.0%	51.1%	2.2%	65.7%	0.0%	47.6%	0.0%	60.0%	0.0%
7	Speaking clearly and effectively	41.5%	0.0%	42.2%	2.2%	56.0%	0.0%	38.1%	4.8%	40.0%	0.0%
8	Solving complex real world problems	41.5%	4.9%	64.4%	0.0%	48.6%	0.0%	57.1%	0.0%	60.0%	0.0%
9	Designing and conducting experiments	14.3%	23.8%	45.5%	9.1%	47.3%	11.8%	62.0%	0.0%	20.0%	40.0%
10	Using computing and information technology	57.1%	4.8%	79.6%	0.0%	50.0%	5.3%	50.0%	2.4%	40.0%	0.0%
PERSONAL											
11	Working effectively with others	66.7%	2.4%	64.4%	0.0%	69.7%	1.3%	57.1%	2.4%	40.0%	0.0%
12	Fulfilling your civic duty by voting in local, state and national elections	16.7%	11.9%	8.9%	35.6%	24.0%	8.0%	11.9%	16.7%	40.0%	0.0%
13	Understanding yourself	71.4%	0.0%	51.1%	2.2%	73.7%	3.9%	52.4%	7.1%	80.0%	0.0%
14	Understanding people of other racial and ethnic backgrounds	73.1%	0.0%	63.6%	2.3%	77.4%	4.0%	61.9%	2.4%	80.0%	0.0%
15	Developing a personal code of values and ethics	47.6%	7.1%	42.2%	8.9%	60.0%	4.0%	42.9%	7.1%	40.0%	0.0%
16	Contributing to the welfare of your community	33.3%	4.8%	24.5%	8.9%	44.8%	5.3%	35.7%	7.1%	40.0%	0.0%

Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey
STUDENT ENGAGEMENT QUESTION BY PROGRAM AREA AND ORIGINAL MATRICULATION TYPE

TABLE 4: TO WHAT EXTENT HAS YOUR UMBC EDUCATION CONTRIBUTED TO YOUR KNOWLEDGE, SKILLS, AND PERSONAL DEVELOPMENT IN THE FOLLOWING AREAS? PERCENT REPORTING VERY MUCH & QUITE A BIT OR NOT APPLICABLE BY PROGRAM AREA- TRANSFER STUDENTS ONLY

		Program Area									
		Arts & Humanities (n=44)		Engin., Comp. & Info. Sciences (n=76)		Social Sciences (n=69)		Math & Sciences (n=13)		Interdisciplinary Studies (n=3)	
		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
KNOWLEDGE											
1	Acquiring a broad general education	81.9%	0.0%	75.0%	3.9%	84.0%	0.0%	46.2%	0.0%	100.0%	0.0%
2	Acquiring job or work-related knowledge and skills	55.8%	2.3%	57.9%	2.6%	59.4%	2.9%	46.2%	0.0%	66.7%	33.3%
3	Analyzing quantitative problems	52.2%	18.2%	69.8%	0.0%	63.2%	5.9%	46.2%	0.0%	66.7%	0.0%
4	Learning effectively on your own	70.4%	2.3%	64.5%	2.6%	76.8%	0.0%	38.5%	7.7%	100.0%	0.0%
5	Thinking critically and analytically	86.3%	4.5%	72.0%	6.7%	79.7%	4.3%	61.6%	7.7%	100.0%	0.0%
SKILLS											
6	Writing clearly and effectively	79.6%	0.0%	56.6%	1.3%	68.1%	2.9%	30.8%	7.7%	66.7%	0.0%
7	Speaking clearly and effectively	68.2%	0.0%	45.4%	4.0%	56.5%	0.0%	23.1%	0.0%	66.7%	0.0%
8	Solving complex real world problems	53.5%	7.0%	57.4%	0.0%	55.0%	4.3%	15.4%	7.7%	66.7%	0.0%
9	Designing and conducting experiments	25.0%	36.4%	36.0%	12.0%	41.2%	13.2%	23.1%	15.4%	0.0%	100.0%
10	Using computing and information technology	31.8%	13.6%	79.0%	0.0%	50.7%	11.6%	38.5%	7.7%	33.3%	33.3%
PERSONAL											
11	Working effectively with others	70.4%	0.0%	67.1%	2.6%	63.7%	1.4%	23.1%	7.7%	66.7%	0.0%
12	Fulfilling your civic duty by voting in local, state and national elections	22.7%	31.8%	9.5%	25.7%	30.4%	24.6%	0.0%	30.8%	33.3%	33.3%
13	Understanding yourself	65.9%	2.3%	46.1%	5.3%	68.1%	1.4%	15.4%	7.7%	66.7%	0.0%
14	Understanding people of other racial and ethnic backgrounds	65.9%	4.5%	52.6%	7.9%	73.9%	2.9%	53.9%	0.0%	66.7%	33.3%
15	Developing a personal code of values and ethics	52.3%	6.8%	36.8%	10.5%	58.0%	4.3%	30.8%	7.7%	33.3%	33.3%
16	Contributing to the welfare of your community	47.8%	9.1%	22.4%	19.7%	44.9%	4.3%	23.1%	7.7%	33.3%	33.3%

Prepared by: UMBC Office of Institutional Research, 3/05.

Calendar Year 2003 Bachelor's Degree Recipients Alumni Survey
STUDENT ENGAGEMENT QUESTIONS

TABLE 5: SELECTED DIFFERENCES BY ORIGINAL MATRICULATION TYPE AND PROGRAM AREA [1]

		Matriculated as:			
		New Freshmen (n=42)		Transfers (n=13)	
MATH & SCIENCES		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
3	Analyzing quantitative problems	88.1%	0.0%	46.2%	0.0%
8	Solving complex real world problems	57.1%	0.0%	15.4%	7.7%
9	Designing and conducting experiments	62.0%	0.0%	23.1%	15.4%
11	Working effectively with others	57.1%	2.4%	23.1%	7.7%
13	Understanding yourself	52.4%	7.1%	15.4%	7.7%
14	Understanding people of other racial and ethnic backgrounds	61.9%	2.4%	53.9%	0.0%

		Matriculated as:			
		New Freshmen (n=76)		Transfers (n=69)	
SOCIAL SCIENCES		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
3	Analyzing quantitative problems	53.9%	2.6%	63.2%	5.9%
12	Fulfilling your civic duty by voting in local, state and national elections	24.0%	8.0%	30.4%	24.6%
13	Understanding yourself	73.7%	3.9%	68.1%	1.4%
14	Understanding people of other racial and ethnic backgrounds	77.4%	4.0%	73.9%	2.9%

		Matriculated as:			
		New Freshmen (n=42)		Tranfers (n=44)	
ARTS & HUMANITIES		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
7	Speaking clearly and effectively	41.5%	0.0%	68.2%	0.0%
12	Fulfilling your civic duty by voting in local, state and	16.7%	11.9%	22.7%	31.8%
13	Understanding yourself	71.4%	0.0%	65.9%	2.3%
14	Understanding people of other racial and ethnic	73.1%	0.0%	65.9%	4.5%

		Matriculated as:			
		New Freshmen (n=45)		Transfers (n=76)	
ENGIN., COMP. & INFO. SCIENCES		% Very Much or Quite a Bit	% Not Applicable	% Very Much or Quite a Bit	% Not Applicable
2	Acquiring job or work-related knowledge and skills	71.1%	0.0%	57.9%	2.6%
4	Learning effectively on your own	73.4%	0.0%	64.5%	2.6%
5	Thinking critically and analytically	77.7%	2.2%	72.0%	6.7%
6	Writing clearly and effectively	51.1%	2.2%	56.6%	1.3%
7	Speaking clearly and effectively	42.2%	2.2%	45.4%	4.0%
13	Understanding yourself	51.1%	2.2%	46.1%	5.3%
14	Understanding people of other racial and ethnic backgrounds	63.6%	2.3%	52.6%	7.9%

[1] Highlighted cells indicate statistically significant difference between New Freshmen and Transfer Students in that Program Area (Chi-Square test (p<.05)).