



College Learning: When Do Students at UC Gain the Most?

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Structure of Presentation

- Research questions
- Results
- Findings and Implications

Research Questions

1. Is there any difference of response rate by student level? How many students respond to the survey twice or three times? And Who are they?
2. How different are student self-ratings on their level of proficiency in various learning areas when they started on their campus across different responses (the first, the second, and third time)?
3. In what area(s) and when do student gain the most? Is there any difference in gains by academic and demographic variables?

Response Rate by Student Level

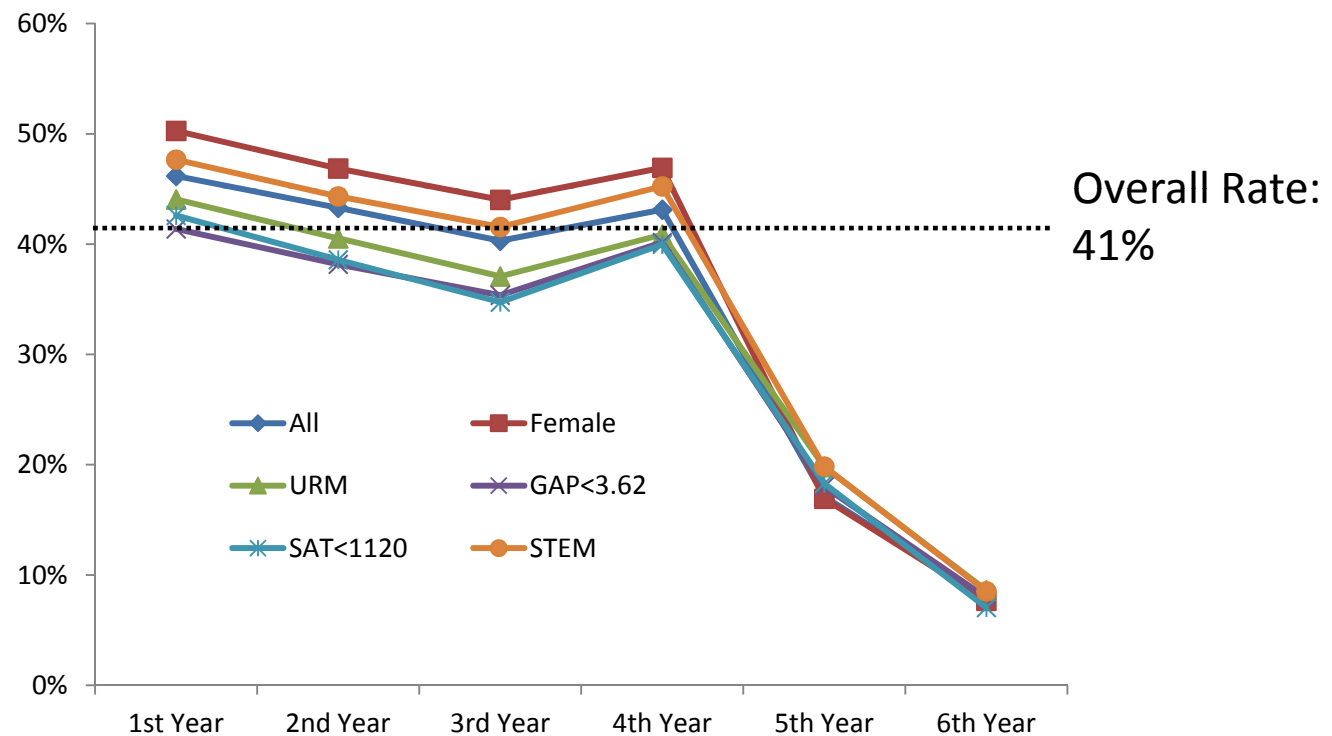
Population

- Four UCUES administrations: 2006, 2008, 2010, 2012
- Student level: defined as **years** students stayed at UC , not based on units completed

Level	Entering Year	UCUES Adm Yr	Population	Respondents	Response Rate
1st Year			126,432	58,389	46.2%
	2005	2006	28,878	12969	44.9%
	2007	2008	32,271	14727	45.6%
	2009	2010	31,736	16539	52.1%
	2011	2012	33,547	14154	42.2%
2nd Year			115,516	50,010	43.3%
	2004	2006	24,864	10483	42.2%
	2006	2008	29,867	12942	43.3%
	2008	2010	31,164	14873	47.7%
	2010	2012	29,621	11712	39.5%
3rd Year			107,300	43,252	40.3%
	2003	2006	25,355	9918	39.1%
	2005	2008	25,366	10112	39.9%
	2007	2010	28,420	12500	44.0%
	2009	2012	28,159	10722	38.1%
4th Year			90,917	39,206	43.1%
	2002	2006	21,110	9009	42.7%
	2004	2008	20,252	8751	43.2%
	2006	2010	24,366	11471	47.1%
	2008	2012	25,189	9975	39.6%
5th Year			37,086	6,346	17.1%
	2001	2006	9,339	1644	17.6%
	2003	2008	9,367	1584	16.9%
	2005	2010	8,661	1597	18.4%
	2007	2012	9,719	1521	15.6%
6th Year			7,637	597	7.8%
	2000	2006	2,008	150	7.5%
	2002	2008	1,993	169	8.5%
	2004	2010	1,659	86	5.2%
	2006	2012	1,977	192	9.7%

Response Rate by Student Level

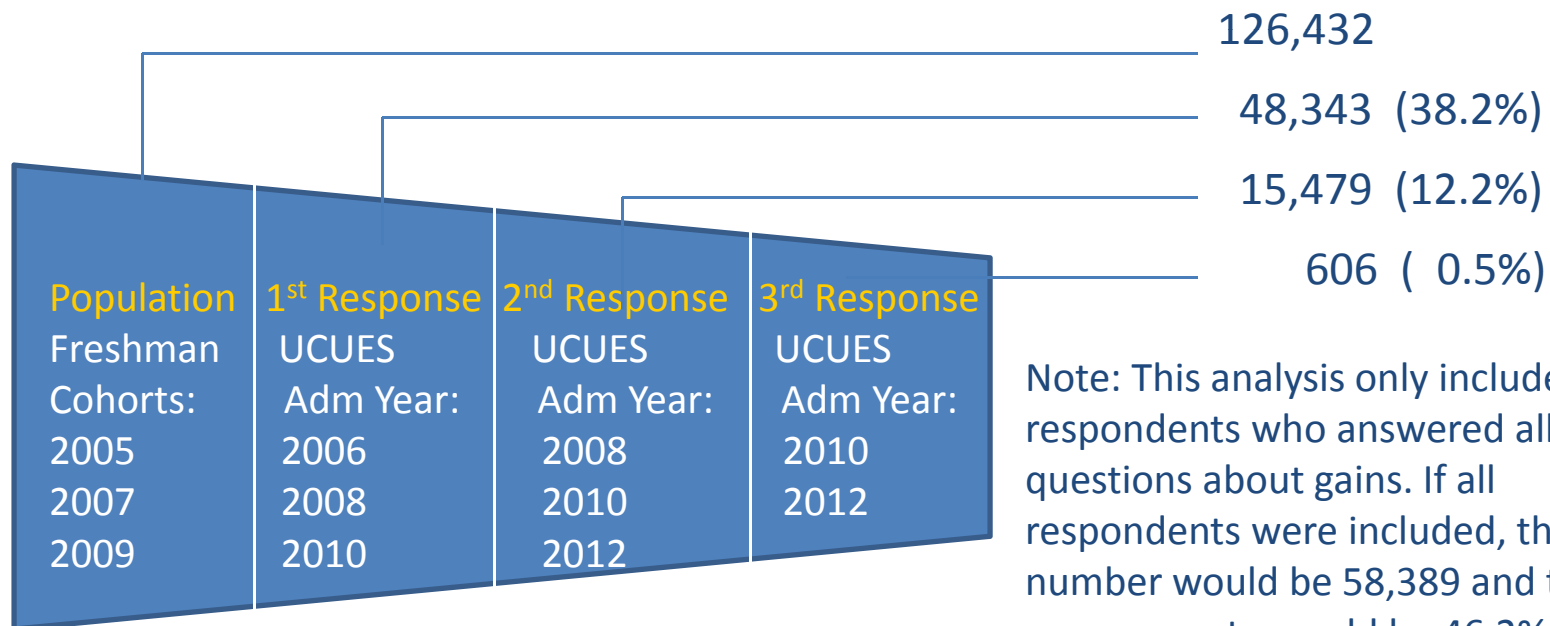
Response Rate by Student Level and Selected Variable



How Many Students Responded Twice/Three Times

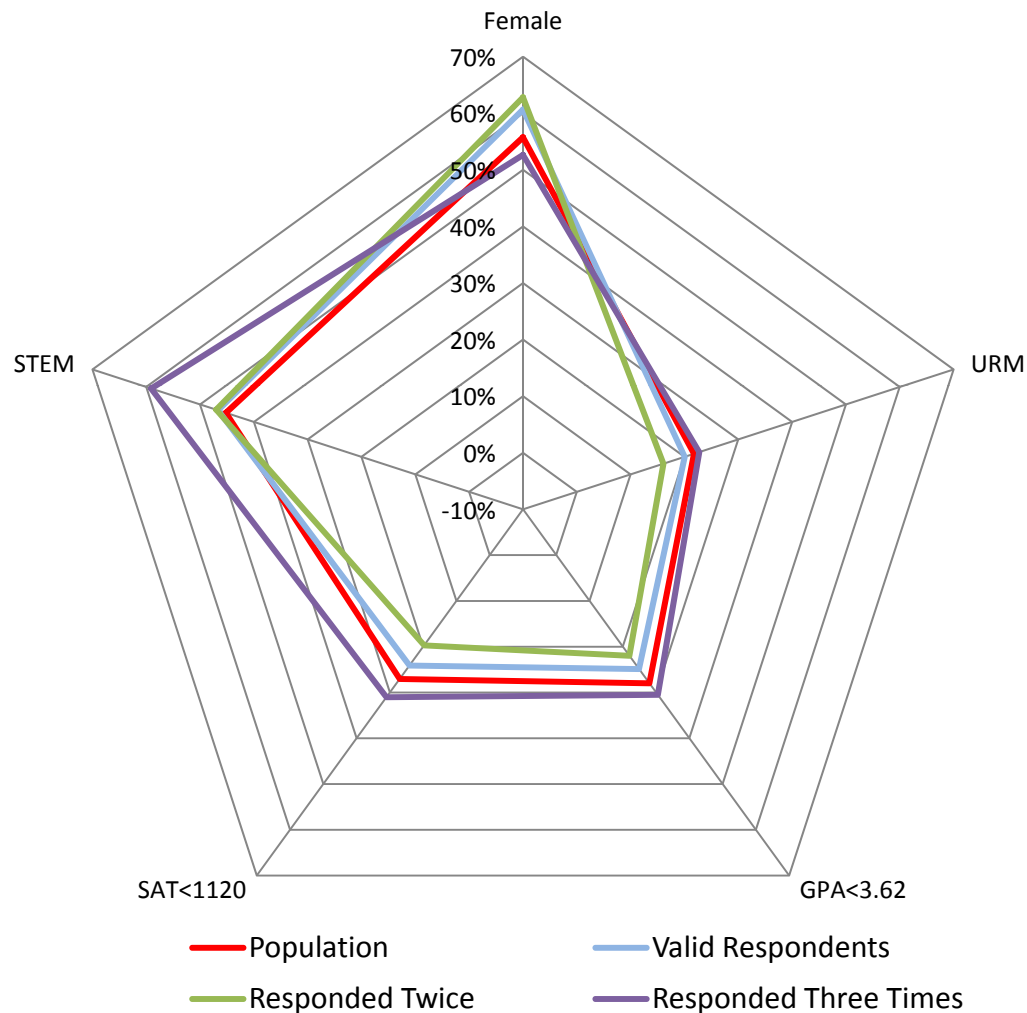
Population

- Four UCUES administrations: 2006, 2008, 2010, 2012
- Freshman entering cohorts: 2005, 2007, 2009



Note: This analysis only includes respondents who answered all questions about gains. If all respondents were included, the total number would be 58,389 and the response rate would be 46.2%.

Representativeness of Respondents



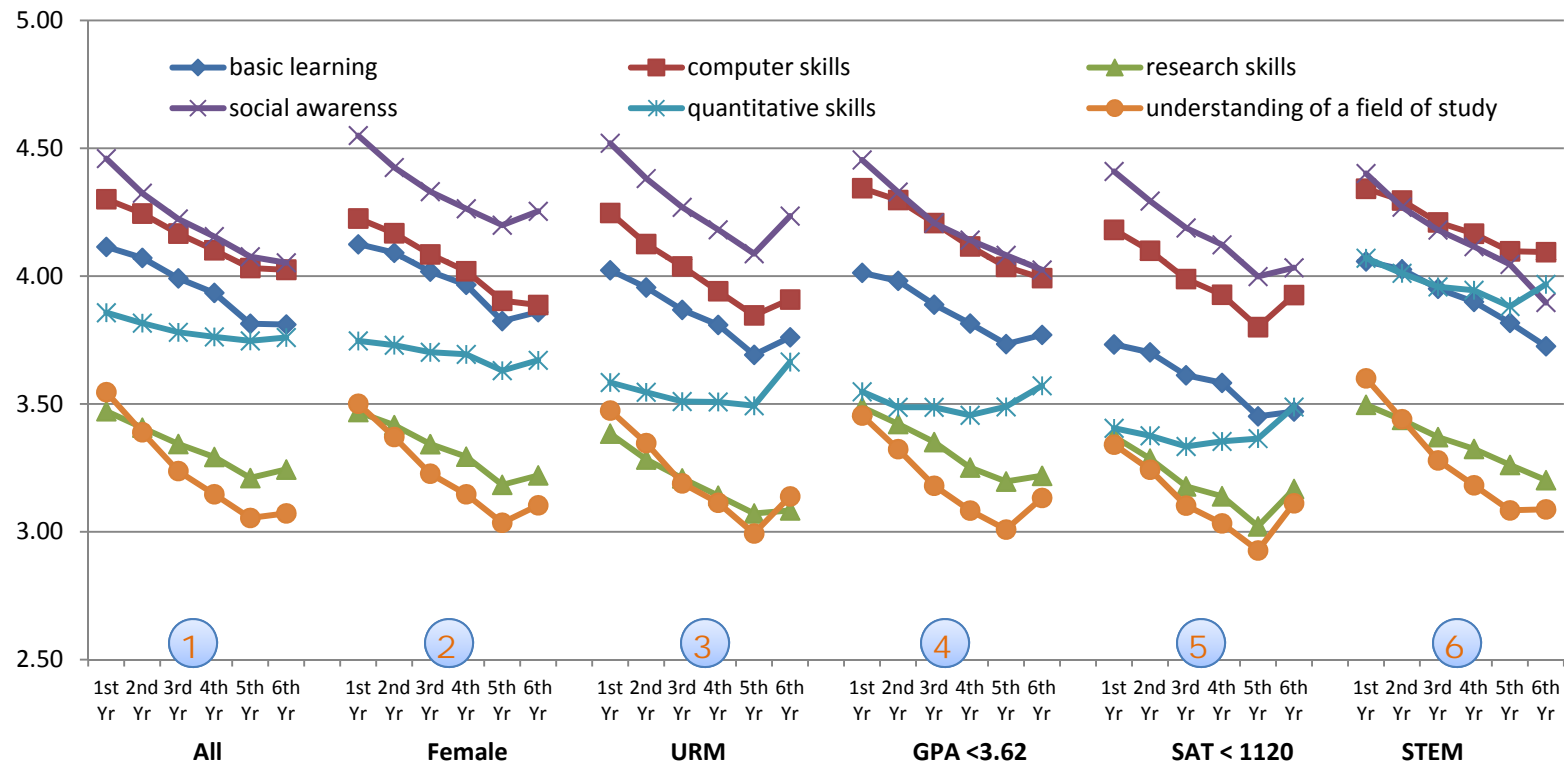
- Females are slightly overrepresented in all respondents and those who responded twice.
- URM's, those with a GPA below 3.62, or those who have an SAT score below 1120 are slightly under-represented in all valid respondents and those who responded twice.
- STEM students are significantly over represented in the population of those who responded to the survey three times.

Gain Factors

Gain Factors	Items				
basic learning	reading	speaking	writing	critical thinking	
computer skills	computer skills	Internet skills			
research skills	library research skills	other research skills			
social awarenss	appreciate, tolerate and understand racial and ethnic diversity	appreciate the fine arts	appreciate cultural and global diversity	understand the importance of personal social responsibility	self awareness and understanding
quantitative skills	mathmatical and statistical skills				
understanding of a field of study	understanding of a specific field of study				

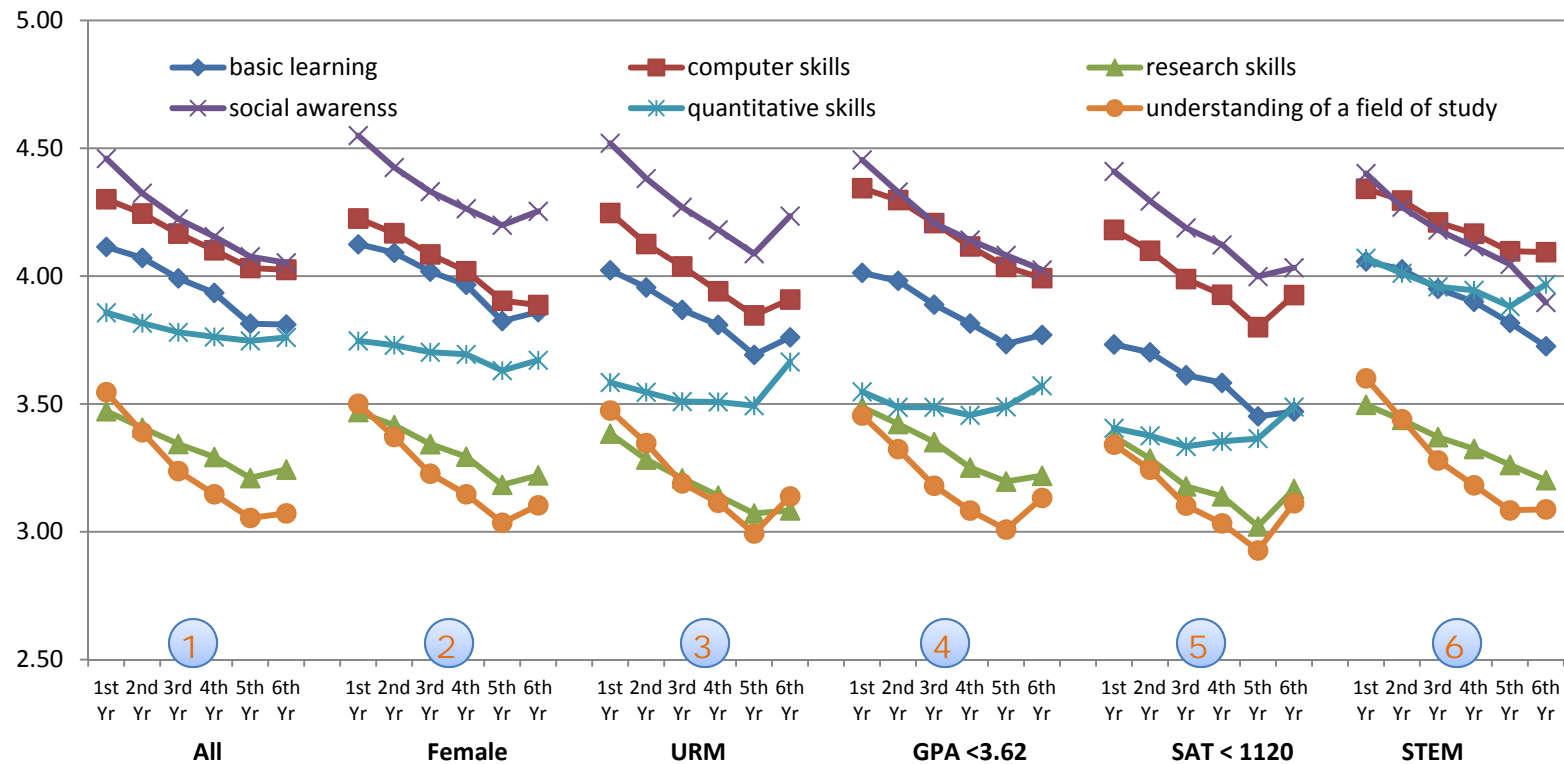
Self-Reported Proficiency Level (started) by Student Level

Proficiency Level on Six Gain Factors When Students Started by Student Level (defined as years at UC)



Self-Reported Proficiency Level (started) by Student Level

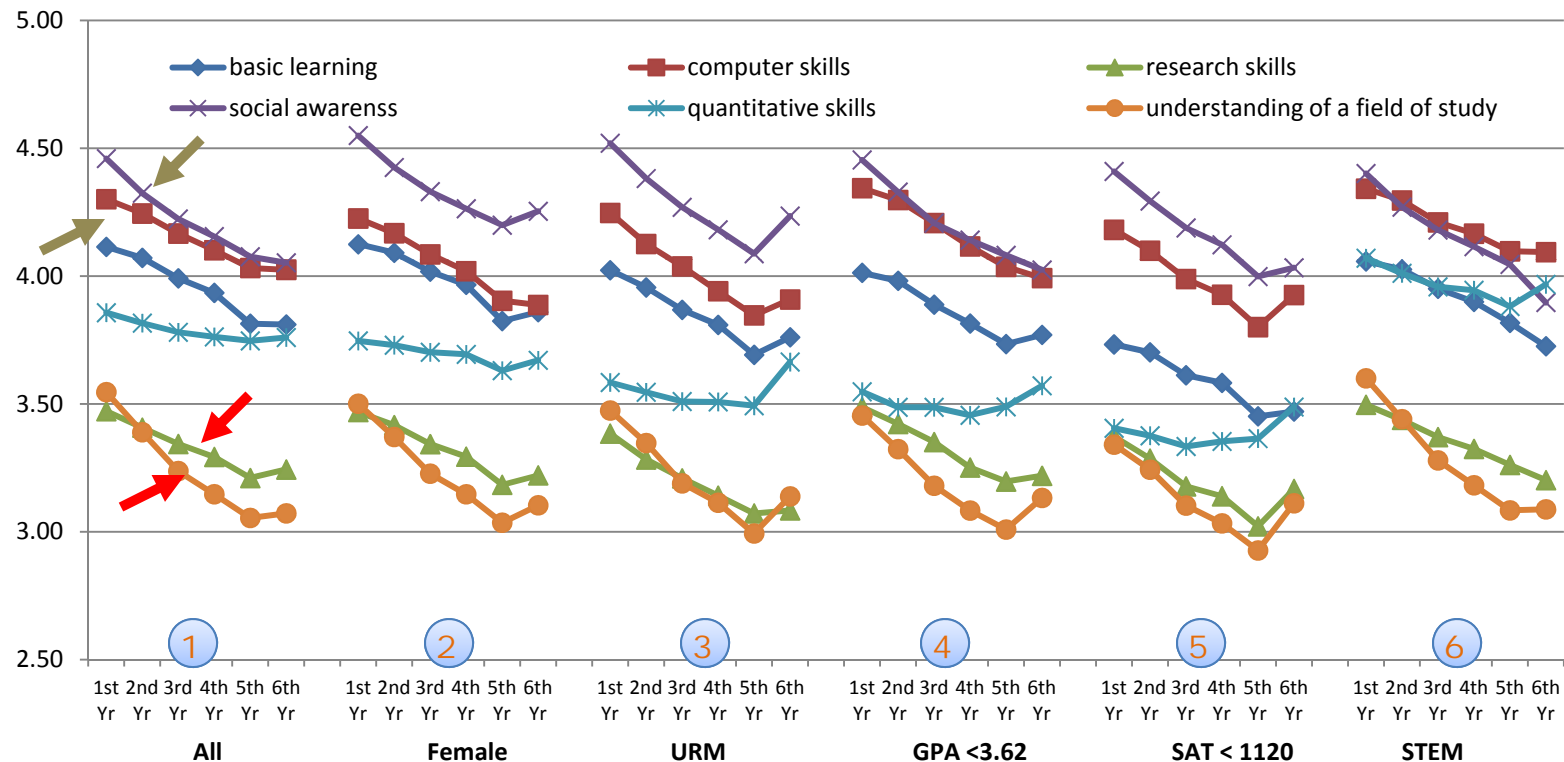
Proficiency Level on Six Gain Factors When Students Started by Student Level (defined as years at UC)



Result 1: The higher the student level is , the lower the self-reported proficiency level on all six gain factors is.

Self-Reported Proficiency Level (started) by Student Level

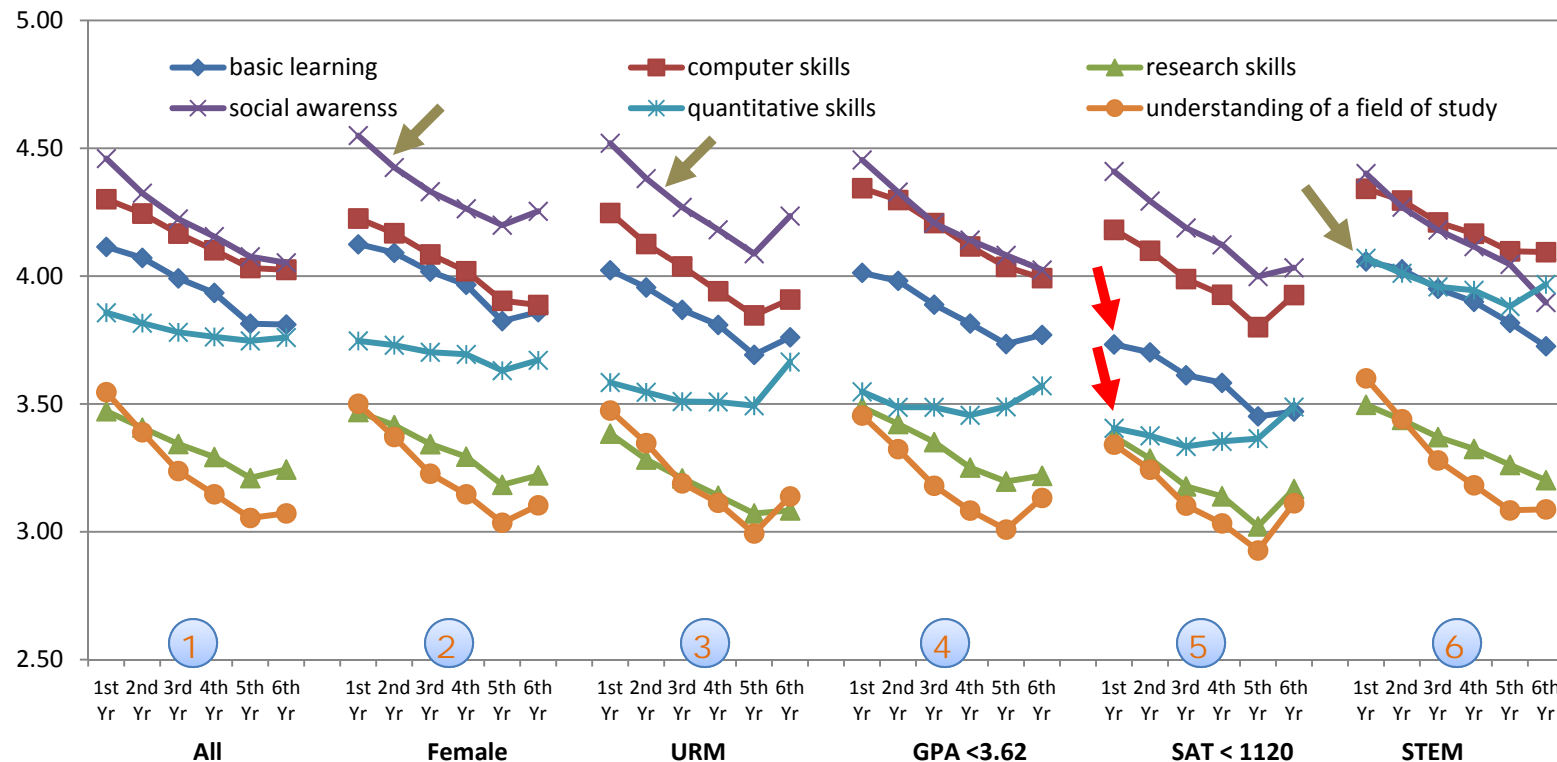
Proficiency Level on Six Gain Factors When Students Started by Student Level (defined as years at UC)



Result 2: Among the six gain factors, student's self-rating on "understanding of a field of study" and "research skills" is the lowest and on "social awareness" and "computer skills" is the highest regardless of student demographic and academic backgrounds.

Self-Reported Proficiency Level (started) by Student Level

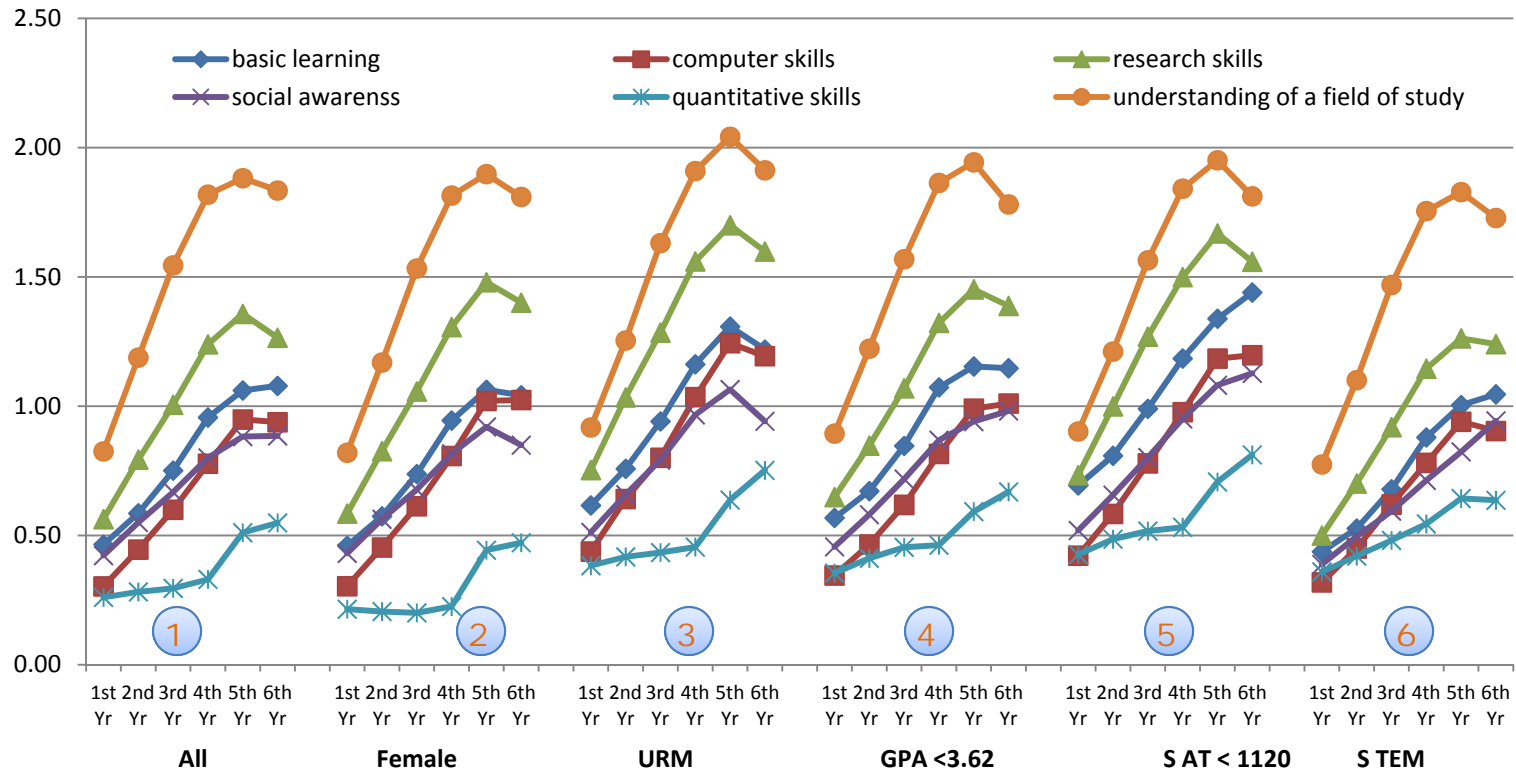
Proficiency Level on Six Gain Factors When Students Started by Student Level (defined as years at UC)



Result 3: By demographics, females have a higher level of self-rating on “social awareness” than males do; URM’s have a higher level of social awareness than non-URM’s; students with a lower SAT score have a lower self-rating on “basic learning” and “quantitative skills”; STEM major students have a significantly higher self-rating on quantitative skills.

Self-Reported Gains by Student Level

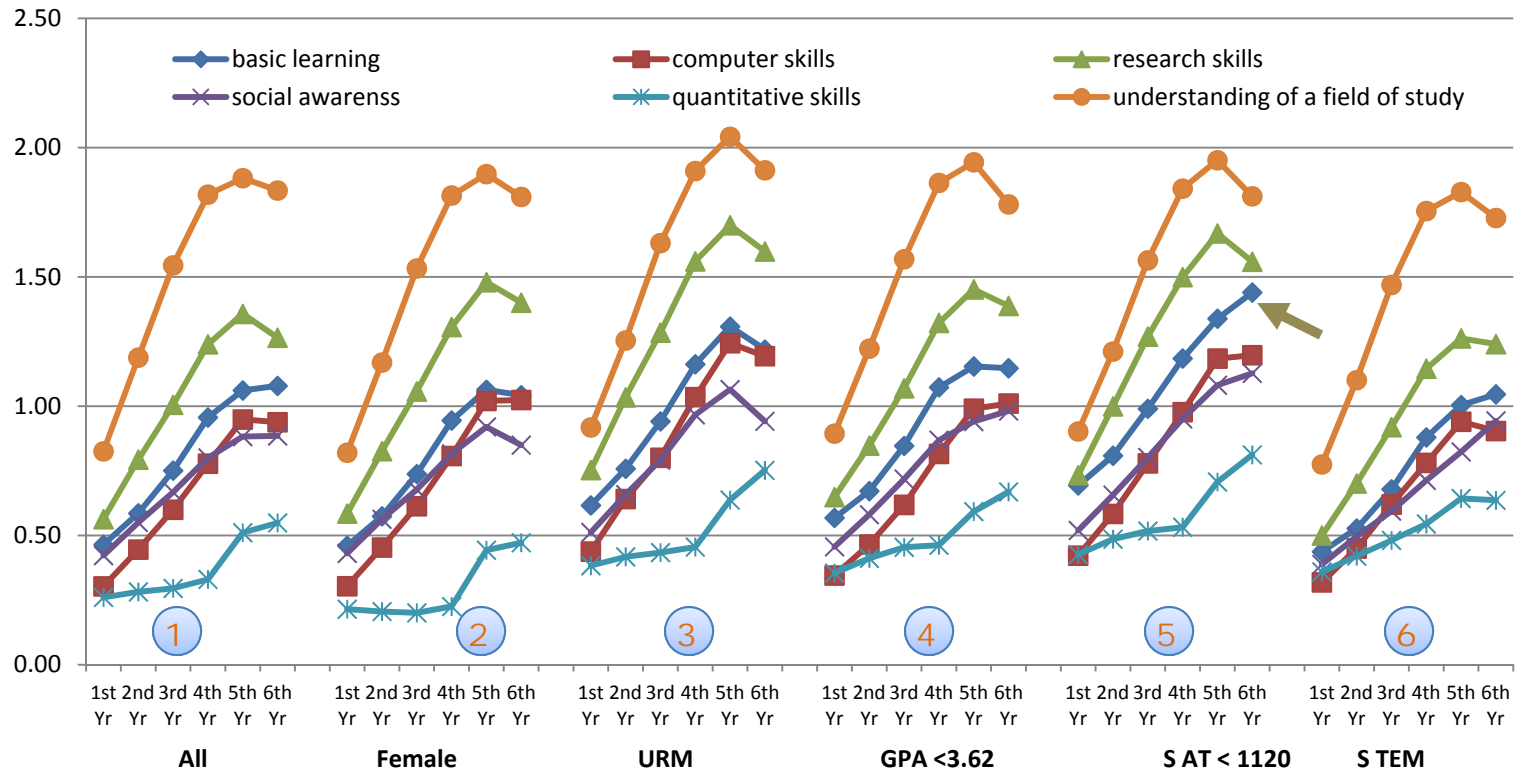
Average Gains by Student Level (defined as years at UC)



Result 4: Students gain the most on all six factors in the first year and gain the most on “understanding of a field of study” and “research skills”. Students gain the least on “quantitative skills” and more importantly, students do not seem to gain anything on this factor in the 2nd, 3rd, and 4th years.

Self-Reported Gains by Student Level

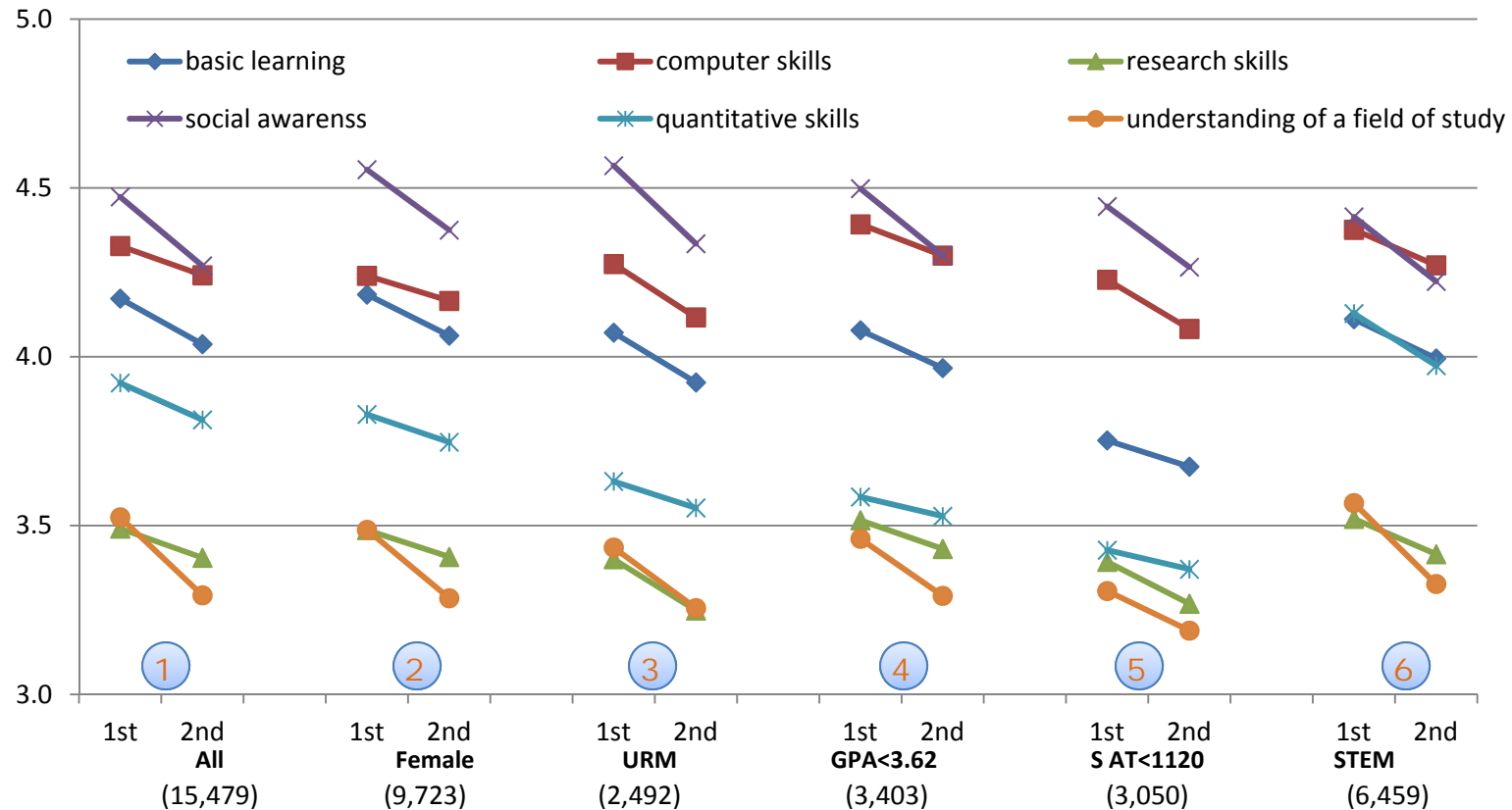
Average Gains by Student Level (defined as years at UC)



Result 5: By demographics, students who started with a lower level of proficiency on gain factors gain more than other students do. For example, the “started” proficiency level reported by students with a lower SAT score is the lowest, but their gains on this factor are significantly more than other students’.

Self-Reported Proficiency Level (started) of 1st vs. 2nd Responses

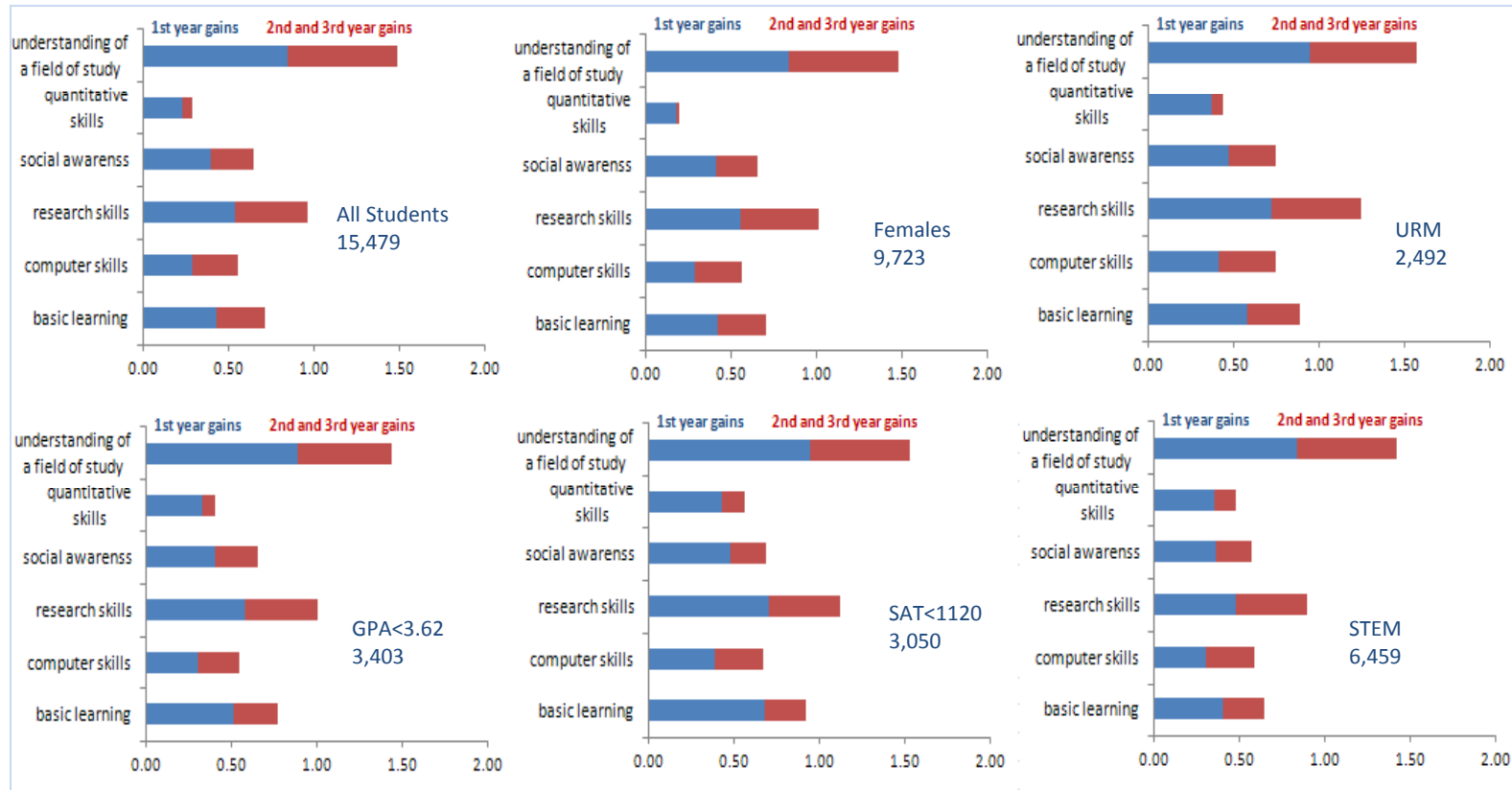
Self Reported Proficiency Level on Six Gain Factors: 1st Response vs. 2nd Response (including those who responded to the survey twice)



Result 6: The second self-rating on proficiency on all six factors is lower than the first self-rating regardless of what their academic and demographic backgrounds are. By demographics, students with lower level of college preparation have a significantly lower rating on quantitative skills and basic learning skills; and STEM students have the highest rating on quantitative skills.

Self-Reported Gains of 1st Year vs. 2nd/3rd Years

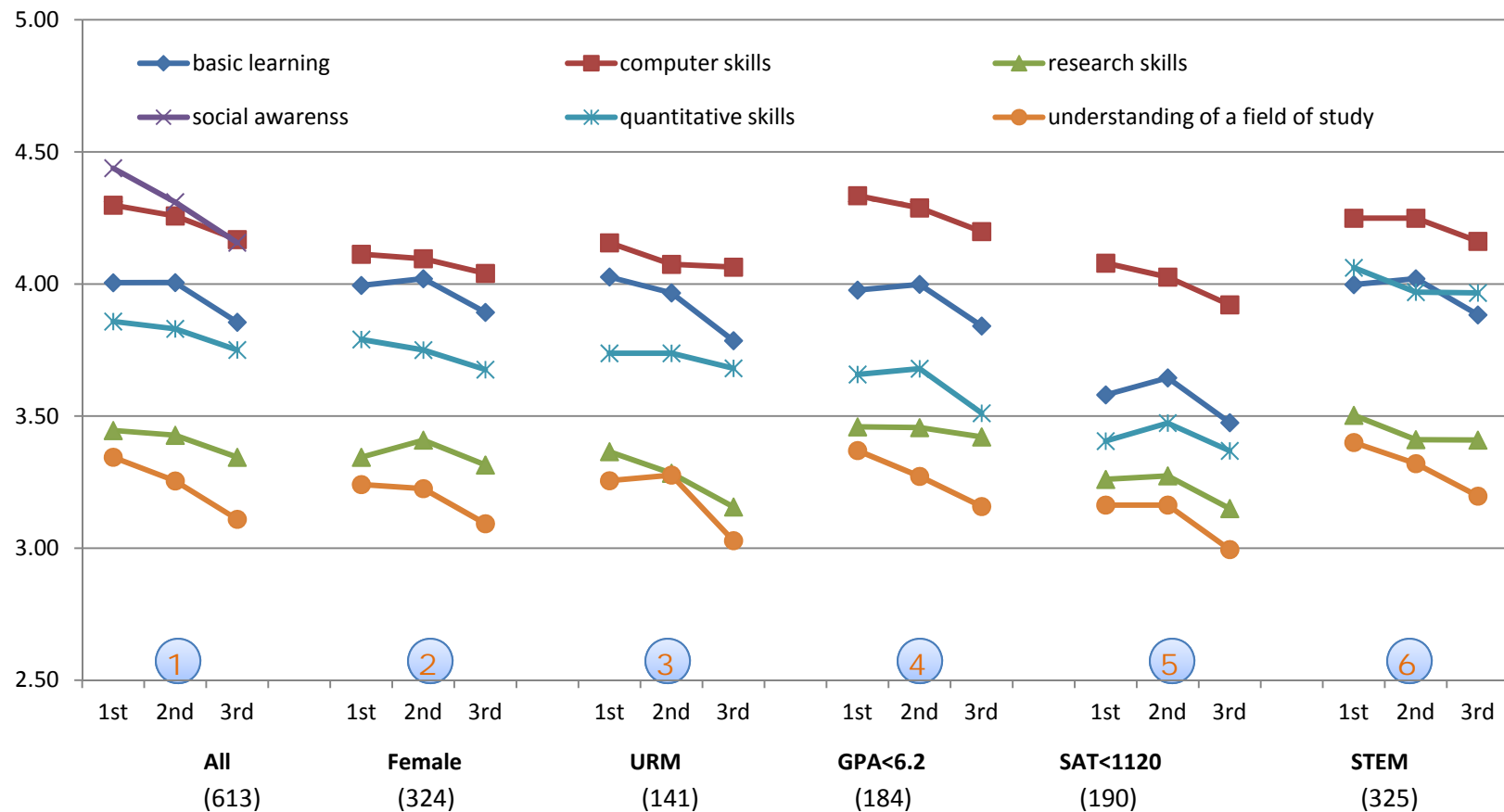
Average Gains in 1st year vs. 2nd/3rd years



Result 7: Students gain the most on “understanding of a field of study” and the second most on “research skills” within three years and a larger proportion of their gains occurs in the first year. They gain the least on “quantitative skills” and this mainly happens in the first year. They only gain a little bit in the second and the third years. The gains patterns by demographics are pretty much the same.

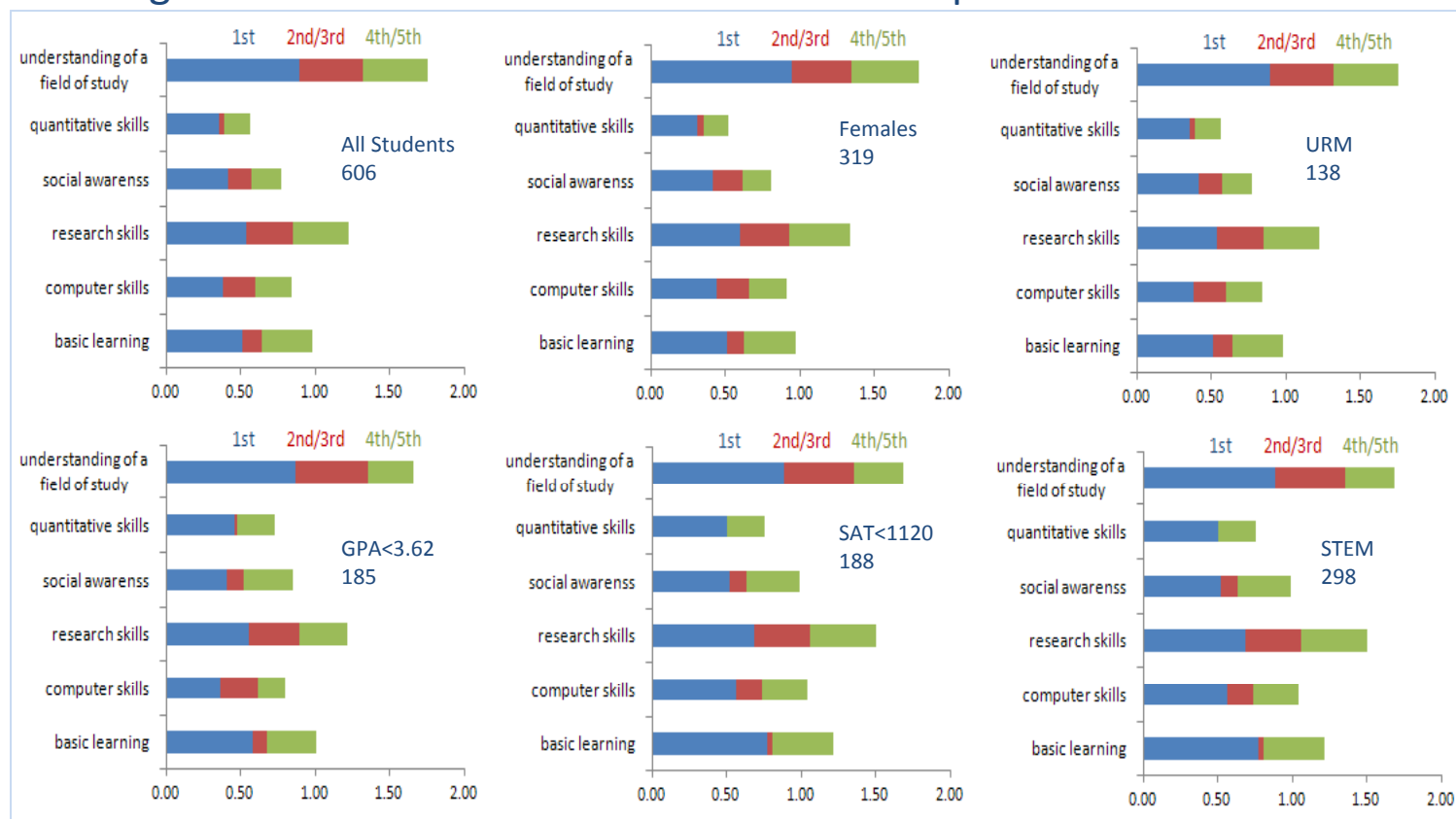
Self-Reported Proficiency Level (started) by Response (3 times)

Self Reported Proficiency Level on Six Gain Factors: 1st year, 2nd/3rd years, vs. 4th/5th years (included those who responded three times)



Self-Reported Gains of 1st Year, 2nd/3rd Years vs. 4th/5th Years

Average Gains in 1st year, 2nd /3rd years vs. 4th/5th years (defined as years at UC, including those who started as a freshman and responded UCUES three times)



Result 8: Those who graduate within 5 years do gain quite a bit on all six learning factors, even more than what they gain on “quantitative skills” and “computer skills” in the 2nd and 3rd years.

Main Findings and Implications

- New students are significantly more likely to respond to survey than old students.
- Less than one-fifth of those who started as a freshman responded to two consecutive surveys; and less than 1% of those who started as a freshman responded to three consecutive surveys.
- The longer students stay at UC, the lower they think that their “started” level of proficiency in various learning areas is.
- Students who are less prepared for college education in terms of high school GPA and SAT have a lower self-rating on “basic learning skills”.
- Students gain the most on “understanding of a field of study” and the second most on “research skills”, but the least on “quantitative skills”.
- The largest portion of student learning gains occurs in the freshman year; students only gain slightly on quantitative skills in the rest of their college life if they graduate within 4 years.