



HIGHER EDUCATION RESEARCH INSTITUTE AT UCLA
HOME OF THE COOPERATIVE INSTITUTIONAL RESEARCH PROGRAM

2019 CIRP Freshman Survey

CIRP Construct Reports

First-time, Full-time Freshmen

University of Virginia-Main Campus

Comparison group 1: Public Universities-high selectivity
Comparison group 2: Private Universities-very high selectivity



Table of Contents

1. CIRP Construct Mean Reports

How to Read the CIRP Construct Mean Reports	H1
a. Habits of Mind	1A
b. Academic Self-Concept	1B
c. Social Self-Concept	1C
d. Pluralistic Orientation	1D
e. Social Agency	1E
f. Civic Engagement	1F
g. College Reputation Orientation	1G
h. Likelihood of College Involvement	1H
i. Science Self-Efficacy	1I
j. Science Identity	1J

2. CIRP Construct Percentage Reports

How to Read the CIRP Construct Percentage Reports	H2
a. Habits of Mind	2A
b. Academic Self-Concept	2B
c. Social Self-Concept	2C
d. Pluralistic Orientation	2D
e. Social Agency	2E
f. Civic Engagement	2F
g. College Reputation Orientation	2G
h. Likelihood of College Involvement	2H
i. Science Self-Efficacy	2I
j. Science Identity	2J

How to Read the CIRP Construct Mean Report

CIRP Constructs are designed to capture the experiences and outcomes institutions are often interested in understanding, but that present a measurement challenge because of their complex and multifaceted nature. To measure these broad underlying areas more precisely, we use Item Response Theory (IRT) to combine individual survey items into global measures that capture these areas. CIRP Constructs are more than a summation of related items; IRT uses response patterns to derive construct score estimates while simultaneously giving greater weight in the estimation process to survey items that tap into the construct more directly. This results in more accurate construct scores. Constructs are particularly useful for benchmarking. They allow you to determine if the experiences and outcomes for your students differ from your comparison groups. Two reports are generated for each CIRP Construct. The Mean Score Report shows comparative information based on the mean score of a construct. The Percentage Report shows comparative information based on the percentage of students who score in the high, average, and low score groups of a construct. We suggest you use the report that best fits your needs as an institution. Both CIRP Construct reports are generated for first-time, full-time freshman, which we define as those respondents who first entered college in 2019 and are currently enrolled full-time. For more information about IRT and the CIRP Construct development process, see the CIRP Constructs Technical Report at www.heri.ucla.edu

CIRP Construct Definition – Summarizes the theoretical rationale for creating the construct.

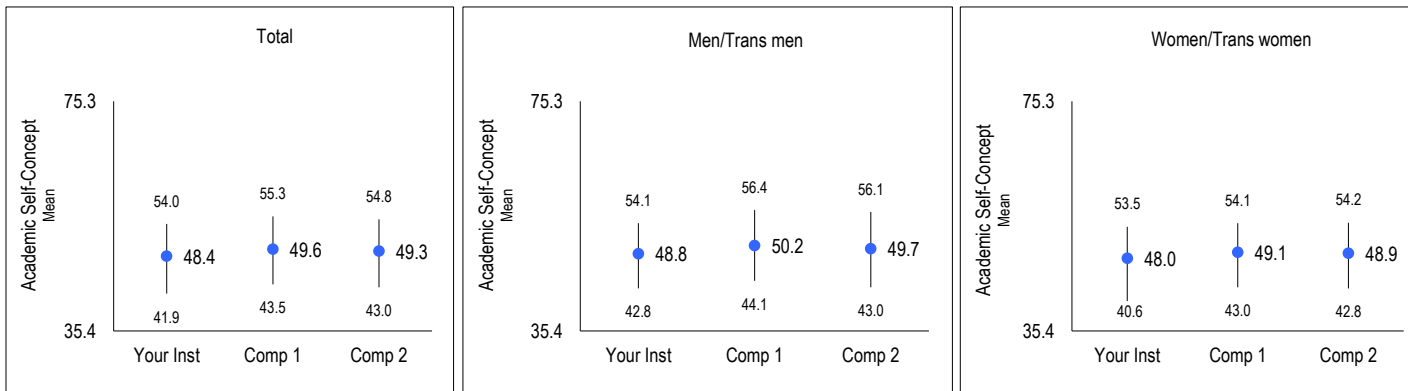
Standard Deviation – Measures the variability around the mean. A small standard deviation indicates that the responses for the construct tend to be very close to the mean, whereas a large standard deviation indicates that the responses are spread over a larger range of response options.

Statistical Significance – Uses a t-test to examine the difference between the mean construct score for your institution and the comparison group. Constructs with mean differences that are larger than would be expected by chance are noted with one, two, or three stars, which correspond to the three standard levels of significance (*p< .05, **p< .01, and ***p< .001). Statistical significance measures the extent to which a difference is occurring by chance, not the extent to which a difference is practically important. Large sample sizes (like those in the comparison groups) tend to generate statistical significance even though the magnitude of the difference may be small and not practically significant. In order to provide additional context to statistical significance, effect sizes are provided.

Academic Self-Concept – is a unified measure of students' beliefs about their abilities and confidence in academic environments.

Sample University	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	619	21,085	42,939	300	10,706	19,535	319	10,379	23,404
Mean	48.4	49.6	49.3	48.8	50.2	49.7	48.0	49.1	48.9
Standard Deviation	8.74	8.55	8.85	8.67	8.67	8.97	8.80	8.41	8.74
Significance	-	***	*	-	**	-	-	*	-
Effect Size	-	-0.14	-0.10	-	-0.16	-0.10	-	-0.12	-0.10
25th percentile	41.9	43.5	43.0	42.8	44.1	43.0	40.6	43.0	42.8
75th percentile	54.0	55.3	54.8	54.1	56.4	56.1	53.5	54.1	54.2

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Academic ability (3.52)
- * Self-confidence - intellectual (1.22)
- * Drive to achieve (0.95)
- * Mathematical ability (1.22)

Survey Items and Estimation "Weights" – The survey items used in the creation of the CIRP Construct are presented in the order in which they contribute to the construct along with the estimation weights generated in IRT. Items that tap into a trait more effectively are given greater weight in the estimation process.

Charts – Provide a visual display of relevant construct scores for your institution and two comparison groups. The Y axis is defined by the highest and lowest possible construct score. Mean scores are represented by blue circles. The numbers at the top and bottom of the vertical line are values for the 75th and 25th percentiles.

Comp 1 – The first comparison group is based on your institution's type, control, and selectivity.

Comp 2 – The second comparison group is based on your institution's type and control.

Mean – The arithmetic mean is computed for each CIRP Construct based on the construct score. CIRP Constructs are scored on a z-score metric and rescaled for a mean of approximately 50 and standard deviation of 10.

Effect Size – Determines the practical significance of the mean difference between your institution and the comparison group. It is calculated by dividing the mean difference by the standard deviation of the comparison group. Generally, an effect size of .2 is considered small, .5 medium, and .8 large. A positive sign indicates that your institution's mean is greater than the mean of the comparison group; a negative sign indicates your mean is smaller than the mean of the comparison group.

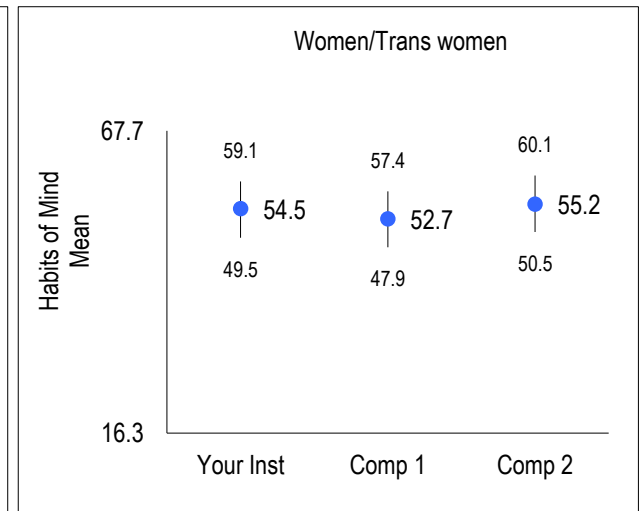
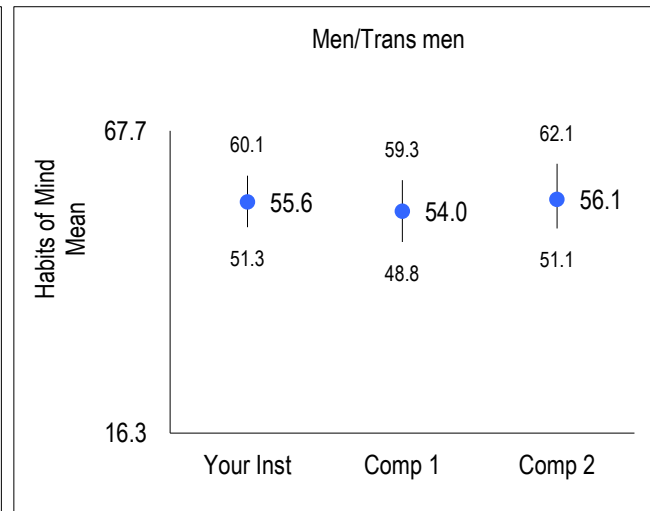
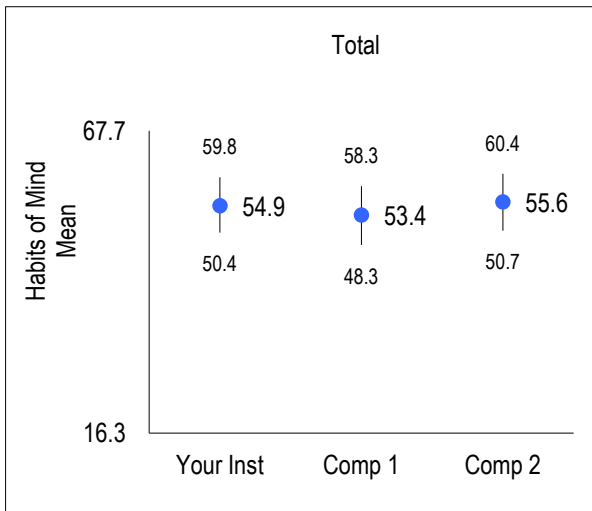


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Habits of Mind
CIRP Construct Mean Report

Habits of Mind - is a unified measure of the behaviors and traits associated with academic success. These learning behaviors are seen as the foundation for lifelong learning.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,823	19,705	4,825	709	8,948	2,132	1,082	10,757	2,693
Mean	54.9	53.4	55.6	55.6	54.0	56.1	54.5	52.7	55.2
Standard Deviation	7.16	7.72	7.21	6.93	7.84	7.40	7.27	7.54	7.00
Significance	-	***	***	-	***	-	-	***	**
Effect Size	-	0.20	-0.09	-	0.20	-0.06	-	0.23	-0.11
25th percentile	50.4	48.3	50.7	51.3	48.8	51.1	49.5	47.9	50.5
75th percentile	59.8	58.3	60.4	60.1	59.3	62.1	59.1	57.4	60.1

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

How often in the past year did you:

- * Ask questions in class (2.09)
- * Support your opinions with a logical argument (2.86)
- * Seek solutions to problems and explain them to others (3.07)
- * Evaluate the quality or reliability of information you received (2.98)
- * Take a risk because you feel you have more to gain (2.41)
- * Seek alternative solutions to a problem (2.84)

- * Look up scientific research articles and resources (2.29)
- * Explore topics on your own, even though it was not required for a class (2.57)
- * Accept mistakes as part of the learning process (1.97)
- * Analyze multiple sources of information before coming to a conclusion (2.81)
- * Take on a challenge that scares you (2.39)

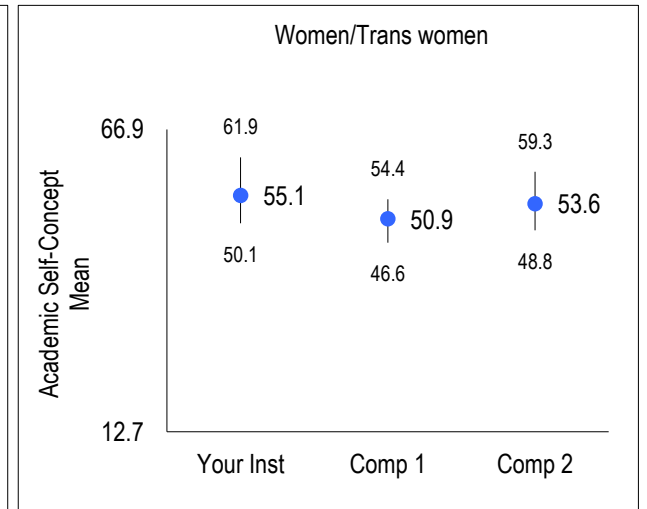
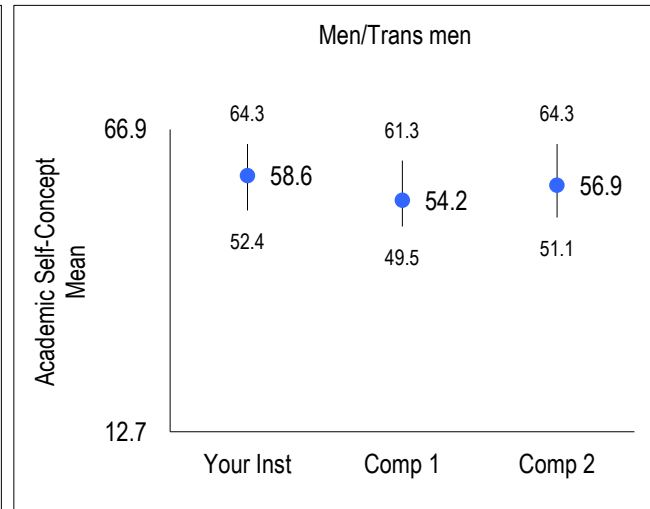
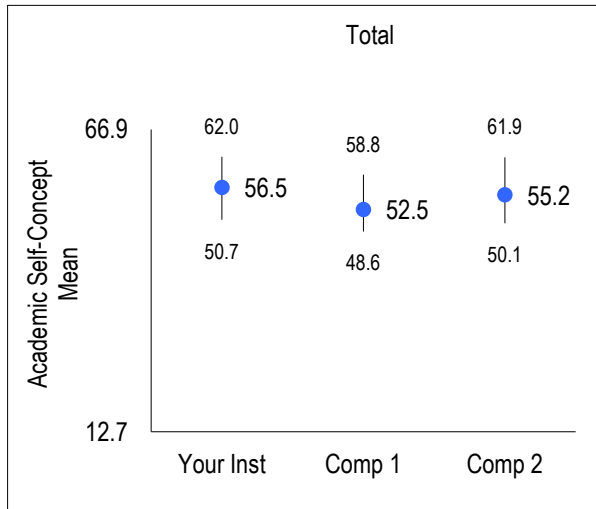


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Academic Self-Concept
CIRP Construct Mean Report

Academic Self-Concept - is a unified measure of students' beliefs about their abilities and confidence in academic environments.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,791	18,588	4,781	697	8,495	2,115	1,063	10,093	2,666
Mean	56.5	52.5	55.2	58.6	54.2	56.9	55.1	50.9	53.6
Standard Deviation	7.49	8.29	7.90	7.28	8.36	8.09	7.28	7.87	7.38
Significance	-	***	***	-	***	***	-	***	***
Effect Size	-	0.48	0.16	-	0.52	0.21	-	0.54	0.20
25th percentile	50.7	48.6	50.1	52.4	49.5	51.1	50.1	46.6	48.8
75th percentile	62.0	58.8	61.9	64.3	61.3	64.3	61.9	54.4	59.3

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Academic ability (2.23)
- * Mathematical ability (1.32)
- * Self-confidence - intellectual (3.65)
- * Drive to achieve (1.95)

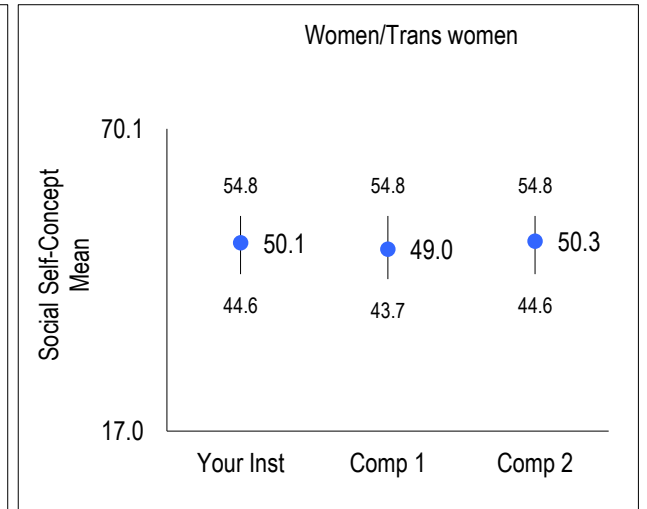
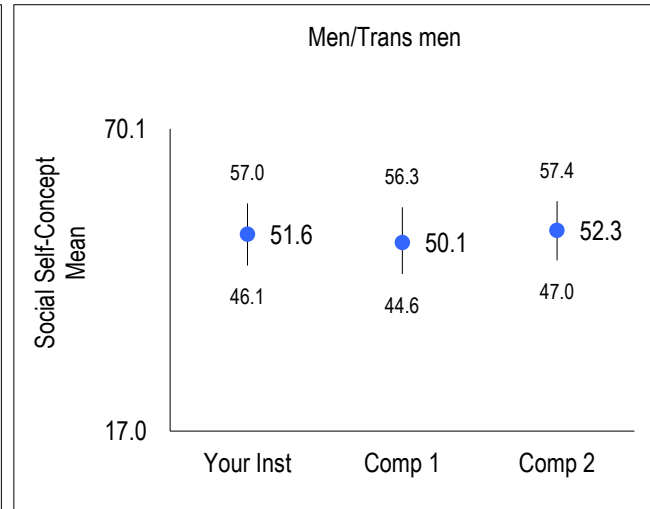
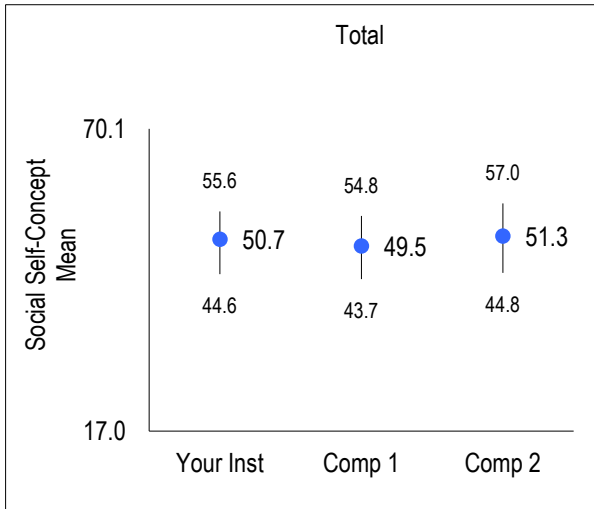


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Social Self-Concept
CIRP Construct Mean Report

Social Self-Concept - is a unified measure of students' beliefs about their abilities and confidence in social situations.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,791	18,491	4,777	697	8,450	2,111	1,063	10,041	2,666
Mean	50.7	49.5	51.3	51.6	50.1	52.3	50.1	49.0	50.3
Standard Deviation	8.20	8.90	8.20	8.55	9.14	8.31	7.89	8.62	7.97
Significance	-	***	*	-	***		-	***	
Effect Size	-	0.13	-0.07	-	0.16	-0.08	-	0.13	-0.03
25th percentile	44.6	43.7	44.8	46.1	44.6	47.0	44.6	43.7	44.6
75th percentile	55.6	54.8	57.0	57.0	56.3	57.4	54.8	54.8	54.8

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Self-confidence - social (4.65)
- * Leadership ability (2.06)
- * Public speaking ability (0.32)

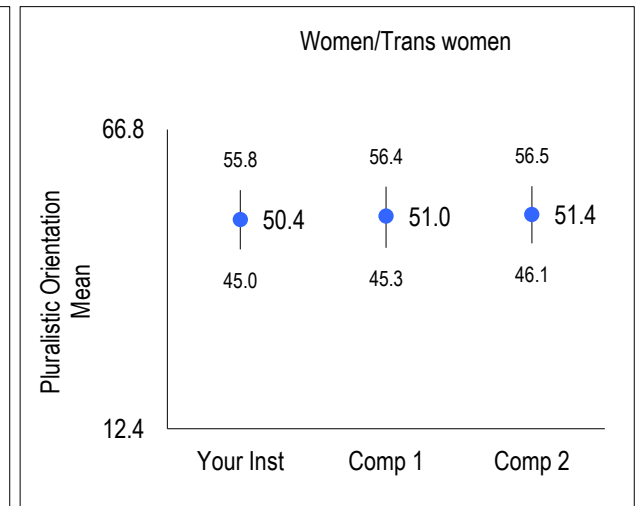
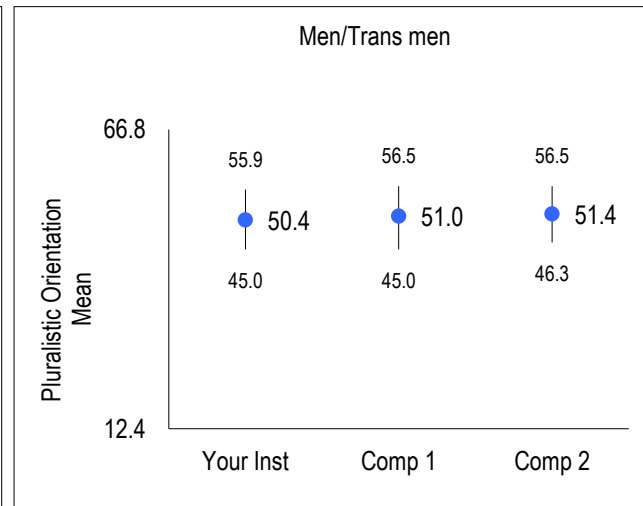
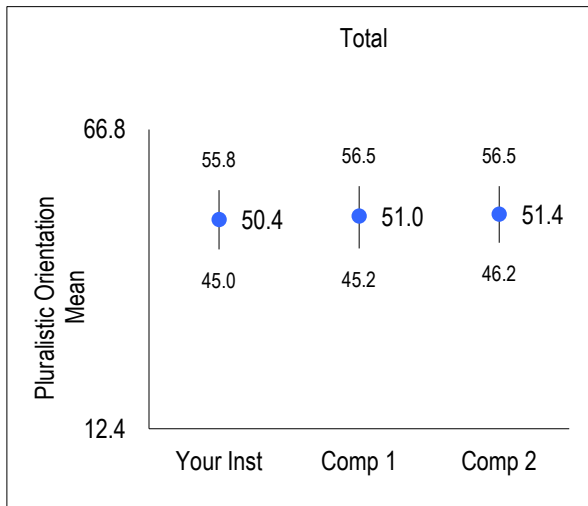


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Pluralistic Orientation
CIRP Construct Mean Report

Pluralistic Orientation - measures skills and dispositions appropriate for living and working in a diverse society.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,836	20,306	4,815	713	9,189	2,127	1,089	11,117	2,688
Mean	50.4	51.0	51.4	50.4	51.0	51.4	50.4	51.0	51.4
Standard Deviation	7.93	8.31	7.83	8.47	8.53	7.94	7.52	8.09	7.72
Significance	-	**	***	-	*	**	-	*	***
Effect Size	-	-0.08	-0.13	-	-0.08	-0.13	-	-0.08	-0.12
25th percentile	45.0	45.2	46.2	45.0	45.0	46.3	45.0	45.3	46.1
75th percentile	55.8	56.5	56.5	55.9	56.5	56.5	55.8	56.4	56.5

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Ability to see the world from someone else's perspective (1.40)
- * Tolerance of others with different beliefs (1.64)
- * Openness to having my own views challenged (1.57)
- * Ability to discuss and negotiate controversial issues (1.53)
- * Ability to work cooperatively with diverse people (1.68)

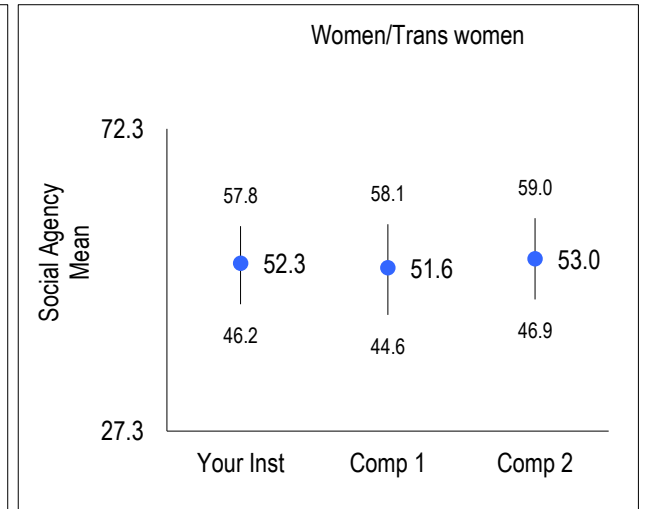
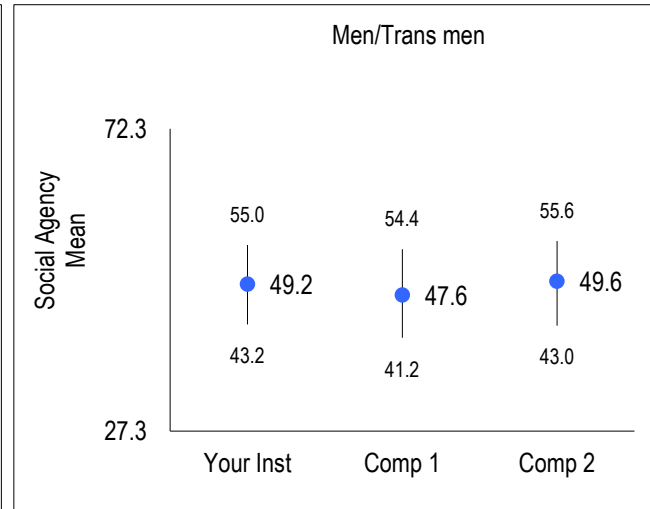
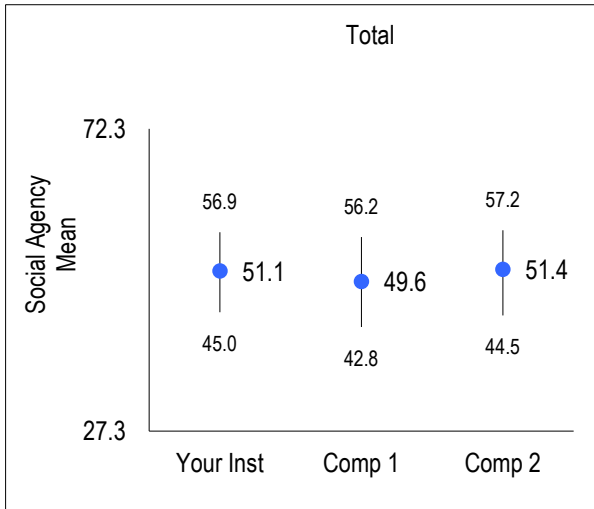


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Social Agency
CIRP Construct Mean Report

Social Agency - measures the extent to which students value political and social involvement as a personal goal.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,746	16,698	4,680	685	7,656	2,061	1,031	9,042	2,619
Mean	51.1	49.6	51.4	49.2	47.6	49.6	52.3	51.6	53.0
Standard Deviation	9.35	10.32	9.75	9.51	10.21	9.90	8.97	10.02	9.32
Significance	-	***		-	***		-	*	*
Effect Size	-	0.15	-0.02	-	0.16	-0.04	-	0.07	-0.07
25th percentile	45.0	42.8	44.5	43.2	41.2	43.0	46.2	44.6	46.9
75th percentile	56.9	56.2	57.2	55.0	54.4	55.6	57.8	58.1	59.0

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Indicate the importance to you personally of each of the following:

- * Participating in a community action program (2.62)
- * Helping to promote racial understanding (2.64)
- * Becoming a community leader (2.57)

- * Influencing social values (2.41)
- * Helping others who are in difficulty (1.86)
- * Keeping up to date with political affairs (2.22)

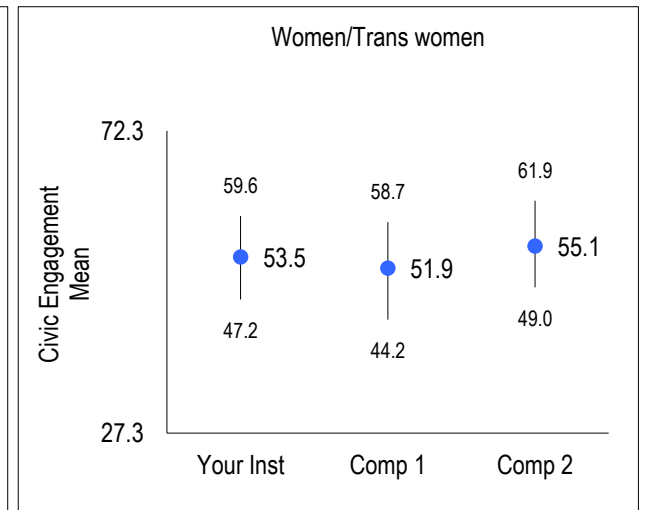
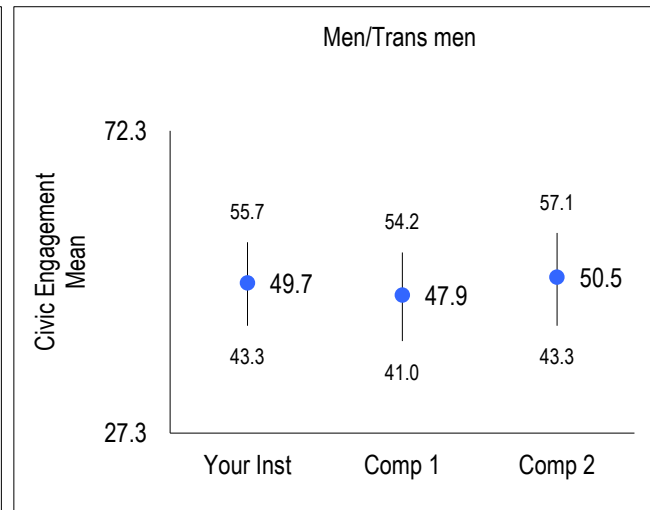
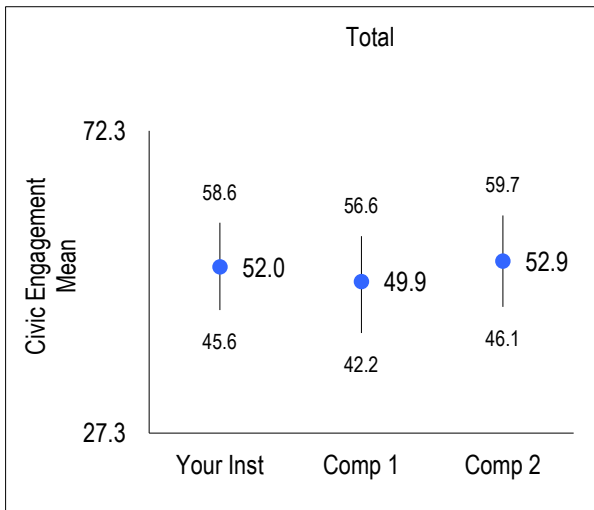


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Civic Engagement
CIRP Construct Mean Report

Civic Engagement - measures the extent to which students are motivated and involved in civic, electoral, and political activities.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,851	21,325	4,867	720	9,596	2,158	1,097	11,729	2,709
Mean	52.0	49.9	52.9	49.7	47.9	50.5	53.5	51.9	55.1
Standard Deviation	9.28	9.93	9.80	9.11	9.63	9.72	9.07	9.82	9.34
Significance	-	***	***	-	***	*	-	***	***
Effect Size	-	0.22	-0.09	-	0.19	-0.09	-	0.17	-0.17
25th percentile	45.6	42.2	46.1	43.3	41.0	43.3	47.2	44.2	49.0
75th percentile	58.6	56.6	59.7	55.7	54.2	57.1	59.6	58.7	61.9

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Indicate activities you did in the past year:

- *Demonstrated for a cause (e.g., boycott, rally, protest) (1.46)
- *Publicly communicated my opinion about a cause (e.g., blog, email, petition) (0.82)
- *Helped raise money for a cause or campaign (1.42)
- *Performed volunteer work (1.11)

Indicate the importance to you personally of each of the following:

- *Influencing social values (0.97)
- *Keeping up to date with political affairs (0.86)

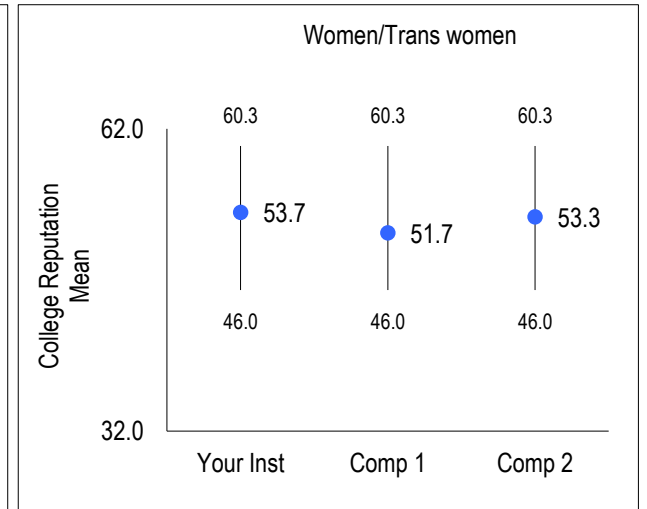
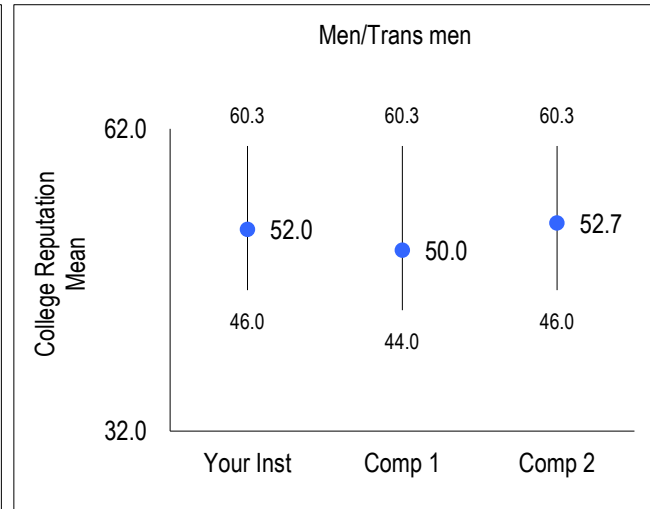
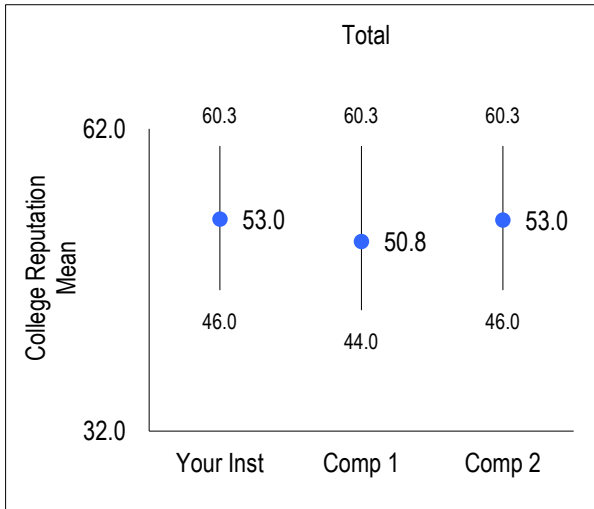


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
College Reputation Orientation
CIRP Construct Mean Report

College Reputation Orientation - measures the degree to which students value academic reputation and future career potential as a reason for choosing this college.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,770	17,674	4,736	690	8,070	2,088	1,050	9,604	2,648
Mean	53.0	50.8	53.0	52.0	50.0	52.7	53.7	51.7	53.3
Standard Deviation	7.56	8.51	7.27	7.67	8.65	7.28	7.41	8.27	7.26
Significance	-	***		-	***		-	***	
Effect Size	-	0.26	0.01	-	0.24	-0.09	-	0.25	0.06
25th percentile	46.0	44.0	46.0	46.0	44.0	46.0	46.0	46.0	46.0
75th percentile	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

How important was each reason in your decision to come here?

- * This college's graduates get good jobs (7.64)
- * This college's graduates gain admission to top graduate/professional schools (5.92)
- * This college has a very good academic reputation (4.89)

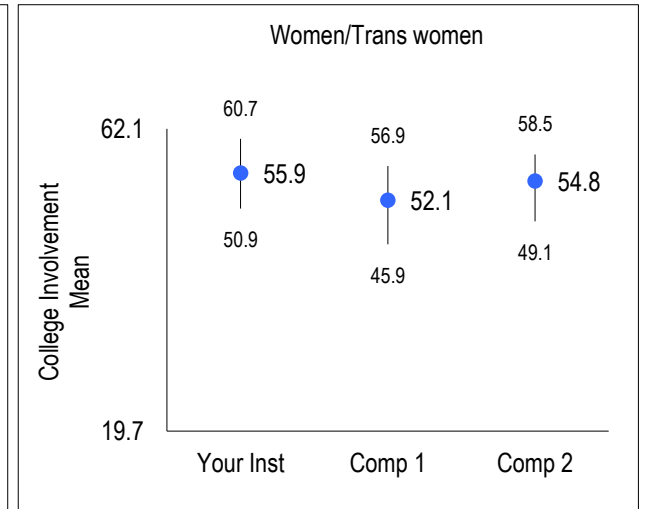
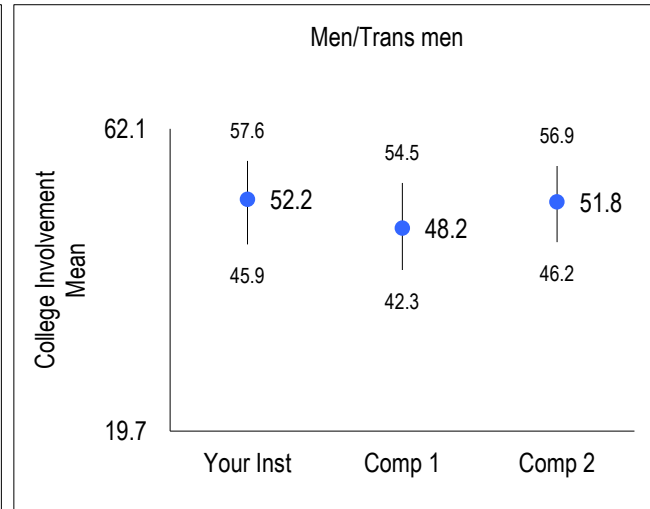
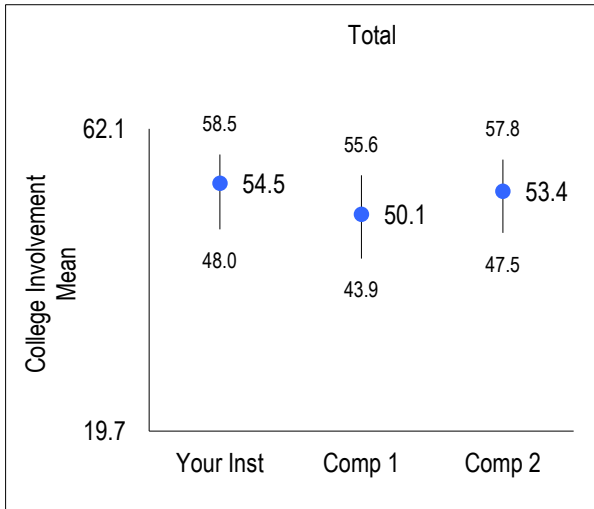


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Likelihood of College Involvement
CIRP Construct Mean Report

Likelihood of College Involvement - is a unified measure of students' expectations about their involvement in college life generally.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,743	16,596	4,670	682	7,591	2,060	1,031	9,005	2,610
Mean	54.5	50.1	53.4	52.2	48.2	51.8	55.9	52.1	54.8
Standard Deviation	9.14	9.57	8.95	9.05	9.29	8.93	8.86	9.45	8.75
Significance	-	***	***	-	***		-	***	***
Effect Size	-	0.45	0.12	-	0.44	0.04	-	0.41	0.13
25th percentile	48.0	43.9	47.5	45.9	42.3	46.2	50.9	45.9	49.1
75th percentile	58.5	55.6	57.8	57.6	54.5	56.9	60.7	56.9	58.5

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

What is your best guess as to the chances that you will:

- * Participate in student clubs/groups (1.28)
- * Participate in volunteer or community service work (1.51)
- * Participate in a study abroad program (0.79)
- * Participate in student government (3.39)

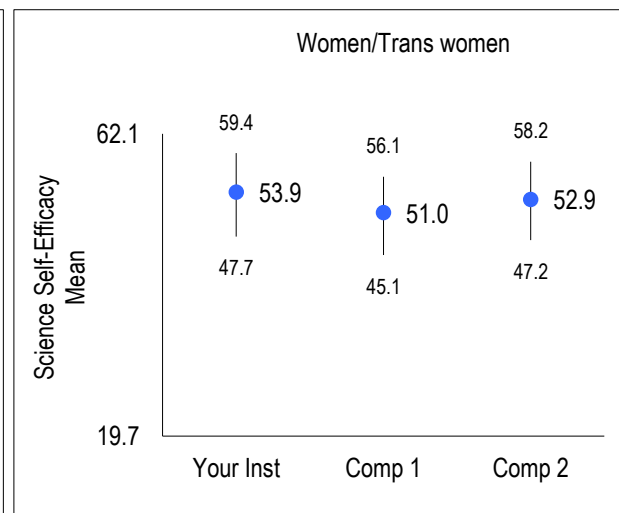
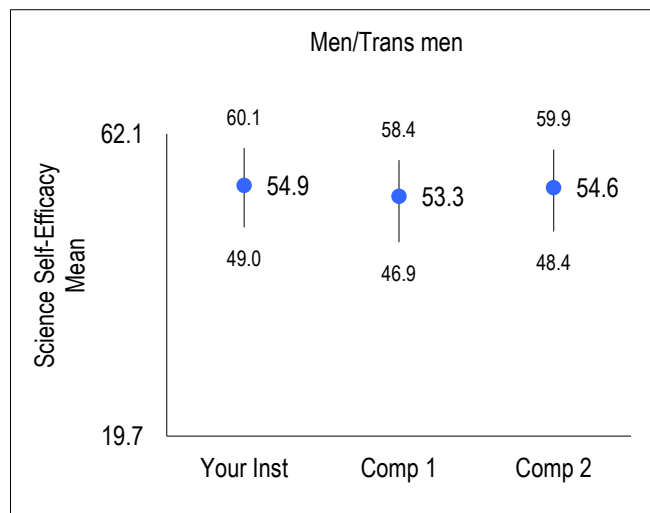
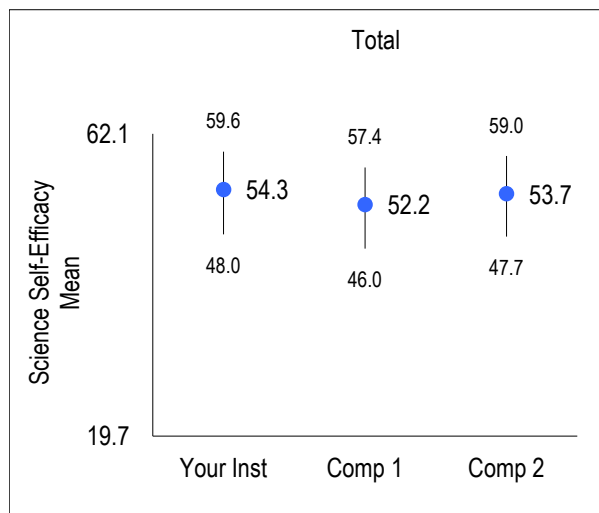


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Science Self-Efficacy
CIRP Construct Mean Report

Science Self-Efficacy - is a measure of students' confidence in their ability to conduct scientific research.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,802	19,117	4,789	701	8,718	2,115	1,069	10,399	2,674
Mean	54.3	52.2	53.7	54.9	53.3	54.6	53.9	51.0	52.9
Standard Deviation	9.23	9.32	9.19	9.29	9.22	9.35	9.14	9.26	8.96
Significance	-	***	*	-	***		-	***	**
Effect Size	-	0.22	0.06	-	0.17	0.03	-	0.31	0.11
25th percentile	48.0	46.0	47.7	49.0	46.9	48.4	47.7	45.1	47.2
75th percentile	59.6	57.4	59.0	60.1	58.4	59.9	59.4	56.1	58.2

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

How confident are you that you can:

- Use technical science skills (use of tools, instruments, and/or techniques) (1.48)
- Generate an answerable research question (2.82)
- Determine how to collect appropriate data (2.70)
- Explain the results of a study (1.73)
- Use scientific literature to guide research (2.40)

- Integrate results from multiple studies (2.33)
- Ask relevant questions (2.87)
- Identify what is known and not known about a problem (2.79)
- Understand scientific concepts (1.95)
- See connections between different areas of science and mathematics (1.90)

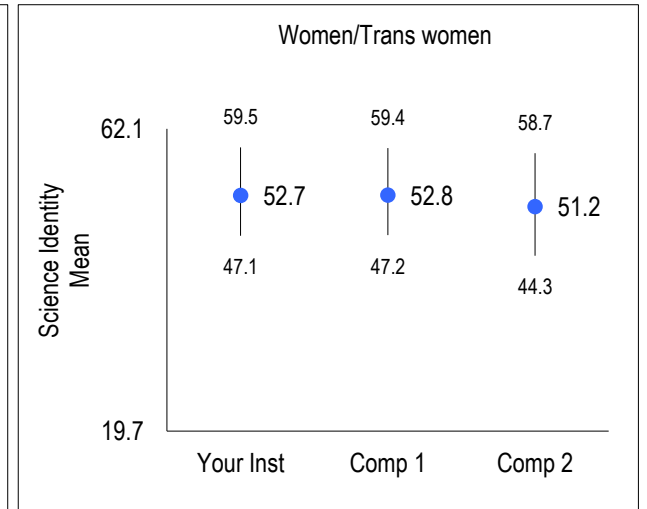
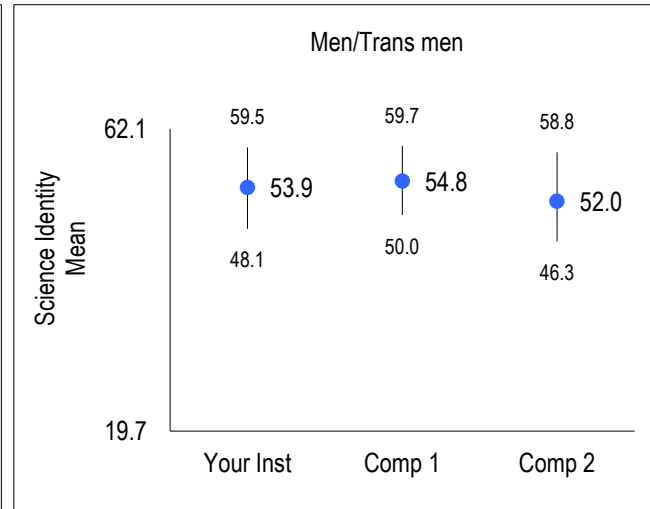
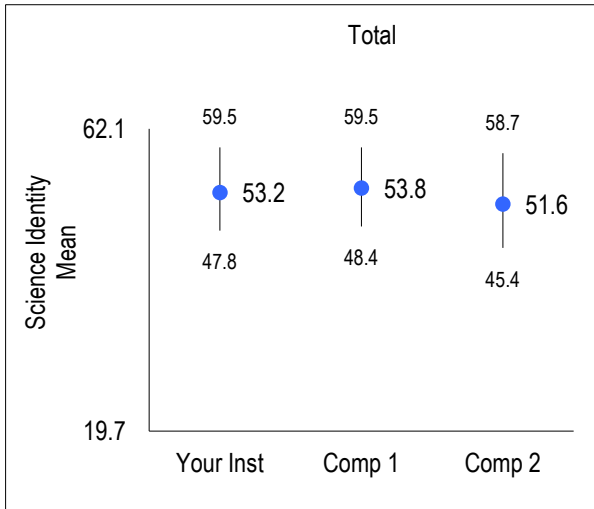


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Science Identity
CIRP Construct Mean Report

Science Identity - The extent to which students conceive of themselves as scientists.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,748	16,985	4,689	686	7,778	2,065	1,032	9,207	2,624
Mean	53.2	53.8	51.6	53.9	54.8	52.0	52.7	52.8	51.2
Standard Deviation	8.65	8.65	9.39	8.49	8.34	9.20	8.73	8.84	9.54
Significance	-	**	***	-	**	***	-	-	***
Effect Size	-	-0.07	0.17	-	-0.11	0.21	-	-0.01	0.16
25th percentile	47.8	48.4	45.4	48.1	50.0	46.3	47.1	47.2	44.3
75th percentile	59.5	59.5	58.7	59.5	59.7	58.8	59.5	59.4	58.7

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

To what extent are the following statements true of you:

- I have a strong sense of belonging to the community of scientists* (3.52)
- I derive great personal satisfaction from working on a team that is doing important research* (1.78)
- I think of myself as a scientist* (5.54)
- I feel like I belong in the field of science* (4.43)

How to Read the CIRP Construct Percentage Report

CIRP Constructs are designed to capture the experiences and outcomes institutions are often interested in understanding, but that present a measurement challenge because of their complex and multifaceted nature. To measure these broad underlying areas more precisely, we use Item Response Theory (IRT) to combine individual survey items into global measures that capture these areas. CIRP Constructs are more than a summation of related items; IRT uses response patterns to derive construct score estimates while simultaneously giving greater weight in the estimation process to survey items that tap into the construct more directly. This results in more accurate construct scores. Constructs are particularly useful for benchmarking. They allow you to determine if the experiences and outcomes for your students differ from your comparison groups. Two reports are generated for each CIRP Construct. The Mean Score Report shows comparative information based on the mean score of a construct. The Percentage Report shows comparative information based on the percentage of students who score in the high, average, and low score groups of a construct. We suggest you use the report that best fits your needs as an institution. Both CIRP Construct reports are generated for first-time, full-time freshmen, which we define as those respondents who first entered college in 2019 and are currently enrolled full-time. For more information about IRT and the CIRP Construct development process, see the CIRP Constructs Technical Report at www.heri.ucla.edu

CIRP Construct Definition – Summarizes the theoretical rationale for creating the construct.

Comp 1 – The first comparison group is based on your institution's type, control, and selectivity.

Comp 2 – The second comparison group is based on your institution's type and control.

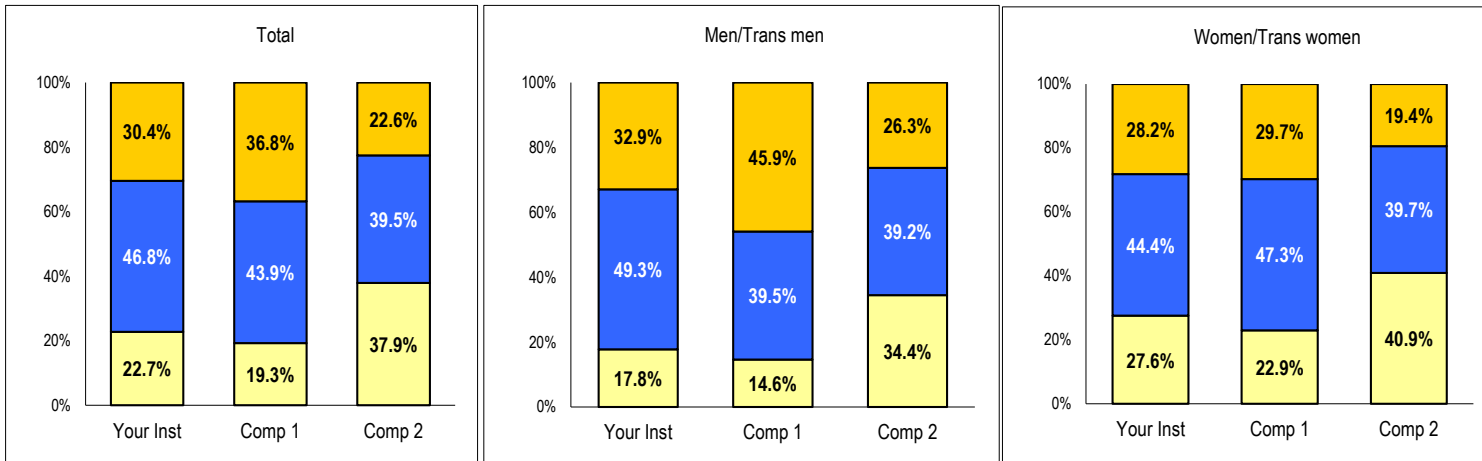
Statistical Significance – uses a proportional difference test to examine the difference between the percentage of students in the high score group for your institution and the percentage of students in the high score group in the comparison group.

Differences larger than what would be expected by chance are noted with one, two, or three stars, which correspond to the three standard levels of significance (*p<.05, **p<.01, ***p<.001). Statistical significance measures the extent to which a difference is occurring by chance, not the extent to which a difference is practically important. Large sample sizes (like those in the comparison groups) tend to generate statistical significance even though the magnitude of the difference might be small and not practically important. Unlike the means scores report, in this case there are no effect size calculations to guide you in determining practical importance when comparing proportional differences.

Academic Self-Concept – is a unified measure of students' beliefs about their abilities and confidence in academic environments.

Sample University	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	313	13,401	30,456	153	5,876	13,369	160	7,525	17,087
High Academic Self-Concept	30.4%	36.8%	22.6%	32.9%	45.9%	26.3%	28.2%	29.7%	19.4%
Average Academic Self-Concept	46.8%	43.9%	39.5%	49.3%	39.5%	39.2%	44.4%	47.3%	39.7%
Low Academic Self-Concept	22.7%	19.3%	37.9%	17.8%	14.6%	34.4%	27.6%	22.9%	40.9%
Significance (based on High score group)	-	*	***	-	**	***	-		***

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Academic ability (3.52)
- * Self-confidence - intellectual (1.22)
- * Drive to achieve (0.95)
- * Mathematical ability (1.32)

Survey Items and Estimation "Weights" – The survey items used in the creation of the CIRP Construct are presented in the order in which they contribute to the construct along with the estimation weights generated in IRT. Items that tap into a trait more effectively are given greater weight in the estimation process.

Charts – CIRP Constructs are scored on a z-score metric and rescaled for a mean of approximately 50 and standard deviation of 10. The Low, Average, and High construct score group percentages are reported here. The "Low" score group represents students who are one-half standard deviation below the mean. The "Average" score group represents students whose scores are within one-half standard deviation of the mean. The "High" score group represents students who are one-half standard deviation or more above the mean.

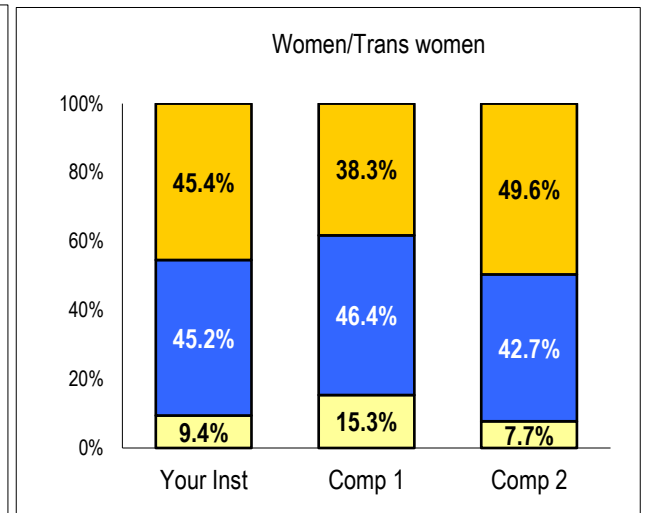
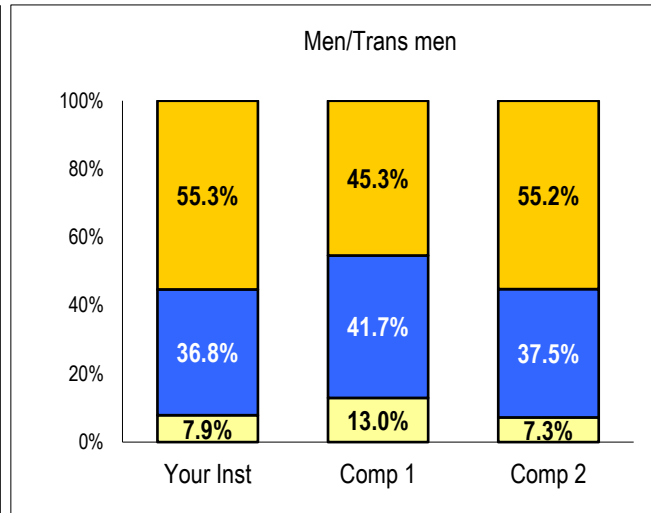
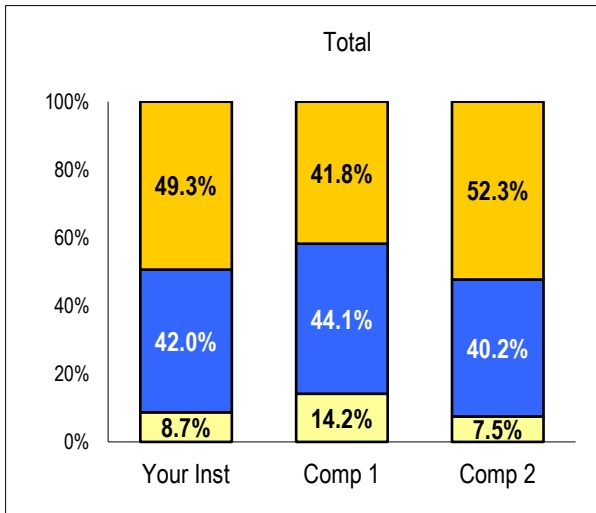


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Habits of Mind
CIRP Construct Percentage Report

Habits of Mind - is a unified measure of the behaviors and traits associated with academic success. These learning behaviors are seen as the foundation for lifelong learning.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,823	19,705	4,825	709	8,948	2,132	1,082	10,757	2,693
High Habits of Mind	49.3%	41.8%	52.3%	55.3%	45.3%	55.2%	45.4%	38.3%	49.6%
Average Habits of Mind	42.0%	44.1%	40.2%	36.8%	41.7%	37.5%	45.2%	46.4%	42.7%
Low Habits of Mind	8.7%	14.2%	7.5%	7.9%	13.0%	7.3%	9.4%	15.3%	7.7%
Significance (based on High score group)	-	***		-	***		-	**	

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

How often in the past year did you:

- * Ask questions in class (2.09)
- * Support your opinions with a logical argument (2.86)
- * Seek solutions to problems and explain them to others (3.07)
- * Evaluate the quality or reliability of information you received (2.98)
- * Take a risk because you feel you have more to gain (2.41)
- * Seek alternative solutions to a problem (2.84)

- * Look up scientific research articles and resources (2.29)
- * Explore topics on your own, even though it was not required for a class (2.57)
- * Accept mistakes as part of the learning process (1.97)
- * Analyze multiple sources of information before coming to a conclusion (2.81)
- * Take on a challenge that scares you (2.39)

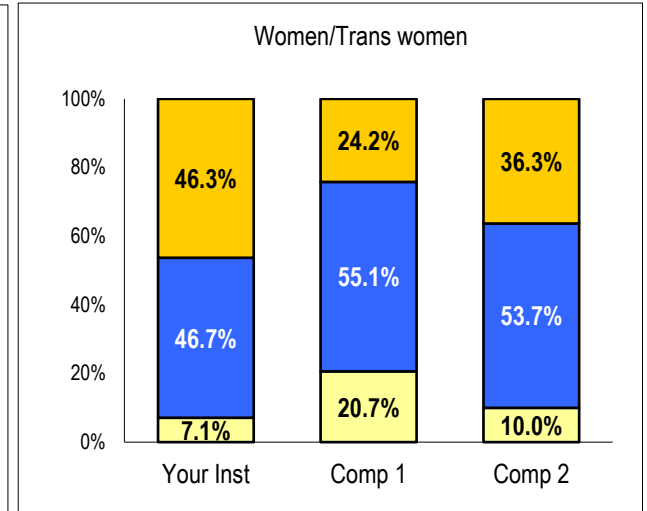
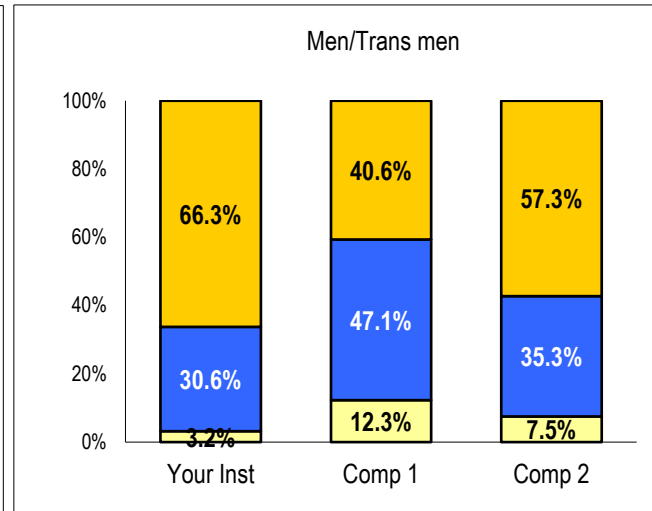
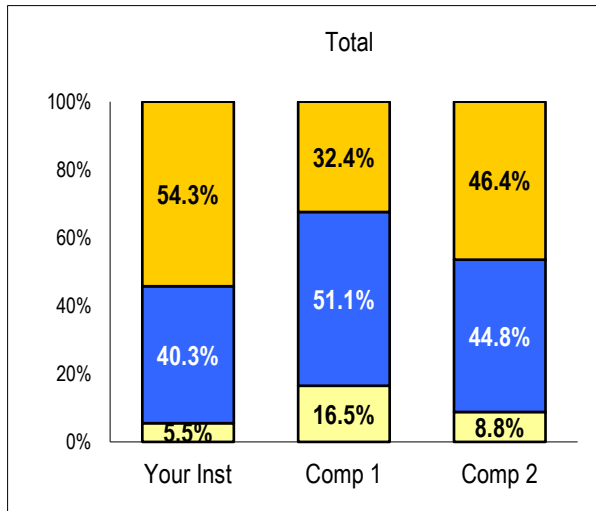


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Academic Self-Concept
CIRP Construct Percentage Report

Academic Self-Concept - is a unified measure of students' beliefs about their abilities and confidence in academic environments.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,791	18,588	4,781	697	8,495	2,115	1,063	10,093	2,666
High Academic Self-Concept	54.3%	32.4%	46.4%	66.3%	40.6%	57.3%	46.3%	24.2%	36.3%
Average Academic Self-Concept	40.3%	51.1%	44.8%	30.6%	47.1%	35.3%	46.7%	55.1%	53.7%
Low Academic Self-Concept	5.5%	16.5%	8.8%	3.2%	12.3%	7.5%	7.1%	20.7%	10.0%
Significance (based on High score group)	-	***	***	-	***	***	-	***	***

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Academic ability (2.23)
- * Mathematical ability (1.32)
- * Self-confidence - intellectual (3.65)
- * Drive to achieve (1.95)

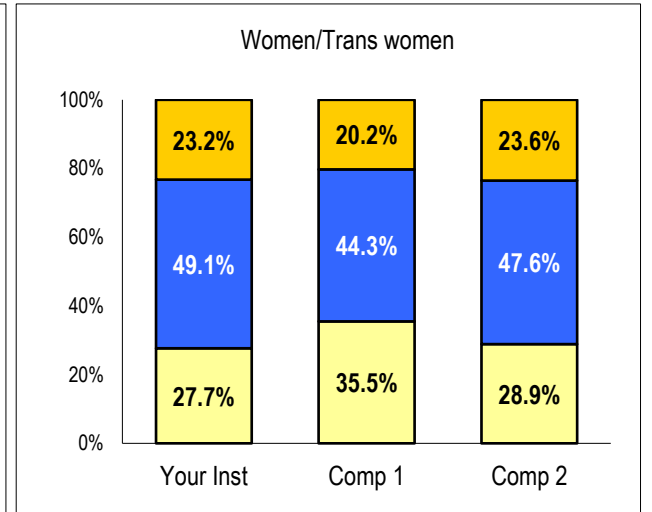
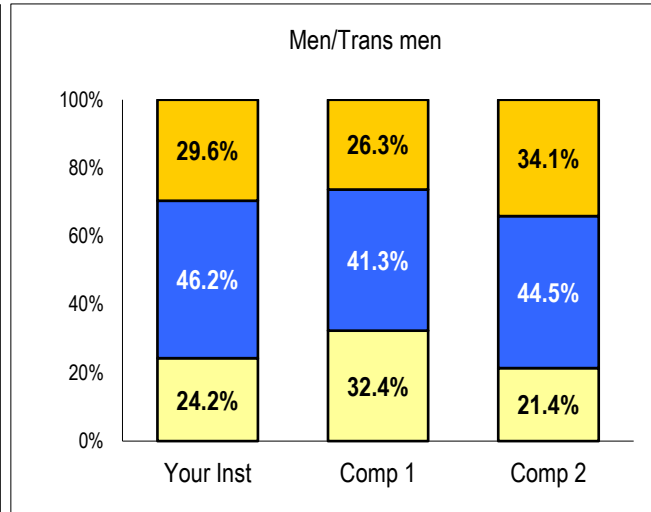
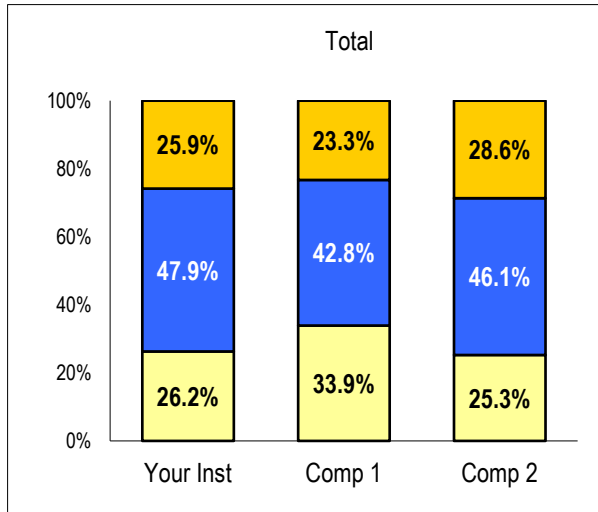


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Social Self-Concept
CIRP Construct Percentage Report

Social Self-Concept - is a unified measure of students' beliefs about their abilities and confidence in social situations.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,791	18,491	4,777	697	8,450	2,111	1,063	10,041	2,666
High Social Self-Concept	25.9%	23.3%	28.6%	29.6%	26.3%	34.1%	23.2%	20.2%	23.6%
Average Social Self-Concept	47.9%	42.8%	46.1%	46.2%	41.3%	44.5%	49.1%	44.3%	47.6%
Low Social Self-Concept	26.2%	33.9%	25.3%	24.2%	32.4%	21.4%	27.7%	35.5%	28.9%
Significance (based on High score group)	-	-	-	-	-	-	-	-	-

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Self-confidence - social (4.65)
- * Leadership ability (2.06)
- * Public speaking ability (0.32)

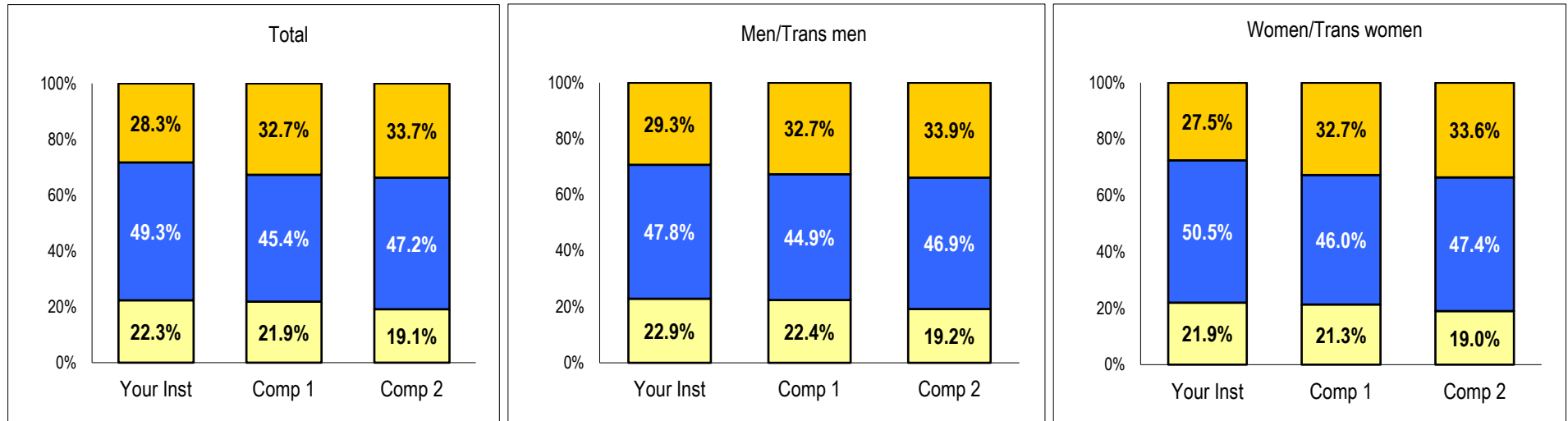


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Pluralistic Orientation
CIRP Construct Percentage Report

Pluralistic Orientation - measures skills and dispositions appropriate for living and working in a diverse society.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,836	20,306	4,815	713	9,189	2,127	1,089	11,117	2,688
High Pluralistic Orientation	28.3%	32.7%	33.7%	29.3%	32.7%	33.9%	27.5%	32.7%	33.6%
Average Pluralistic Orientation	49.3%	45.4%	47.2%	47.8%	44.9%	46.9%	50.5%	46.0%	47.4%
Low Pluralistic Orientation	22.3%	21.9%	19.1%	22.9%	22.4%	19.2%	21.9%	21.3%	19.0%
Significance (based on High score group)	-	*	*	-			-		*

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Rate yourself on each of the following traits as compared with the average person your age:

- * Ability to see the world from someone else's perspective (1.40)
- * Tolerance of others with different beliefs (1.64)
- * Openness to having my own views challenged (1.57)
- * Ability to discuss and negotiate controversial issues (1.53)
- * Ability to work cooperatively with diverse people (1.68)

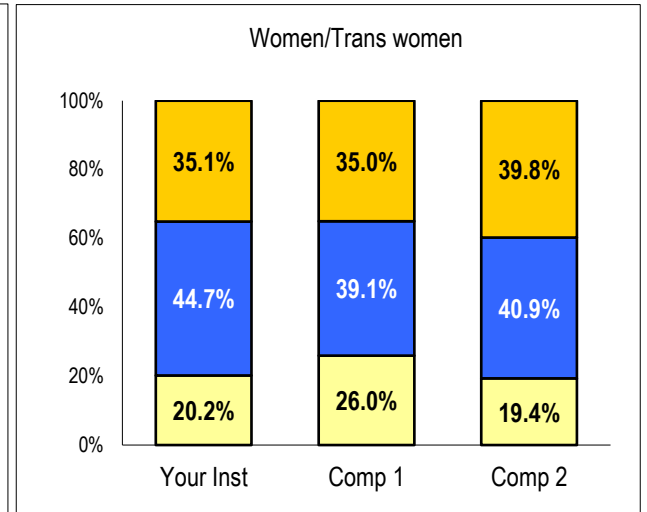
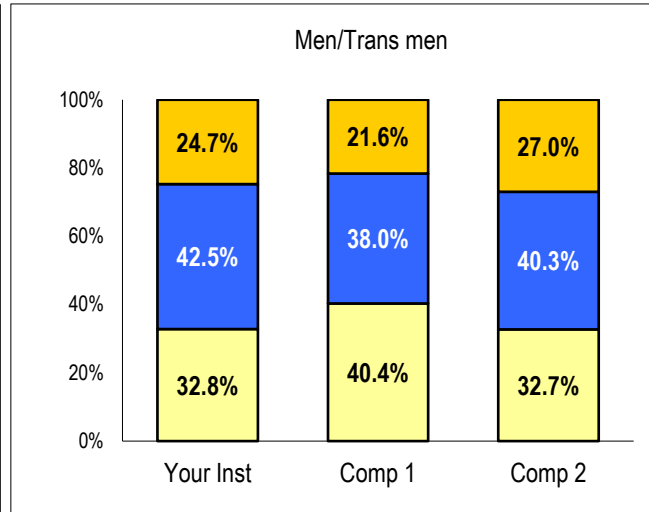
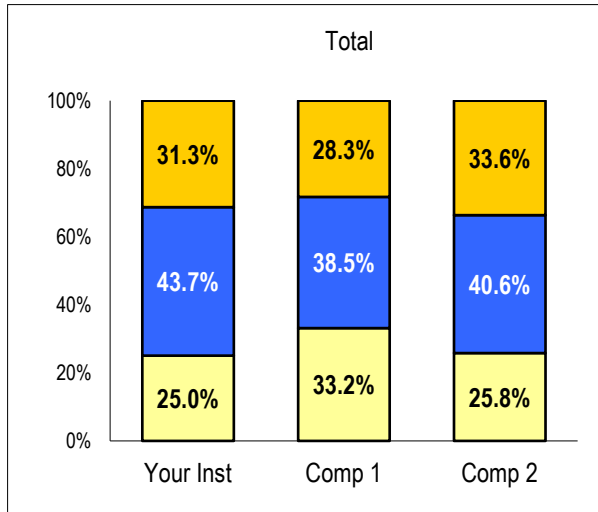


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Social Agency
CIRP Construct Percentage Report

Social Agency - measures the extent to which students value political and social involvement as a personal goal.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,746	16,698	4,680	685	7,656	2,061	1,031	9,042	2,619
High Social Agency	31.3%	28.3%	33.6%	24.7%	21.6%	27.0%	35.1%	35.0%	39.8%
Average Social Agency	43.7%	38.5%	40.6%	42.5%	38.0%	40.3%	44.7%	39.1%	40.9%
Low Social Agency	25.0%	33.2%	25.8%	32.8%	40.4%	32.7%	20.2%	26.0%	19.4%
Significance (based on High score group)	-			-			-		

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Indicate the importance to you personally of each of the following:

- * Participating in a community action program (2.62)
- * Helping to promote racial understanding (2.64)
- * Becoming a community leader (2.57)

- * Influencing social values (2.41)
- * Helping others who are in difficulty (1.86)
- * Keeping up to date with political affairs (2.22)

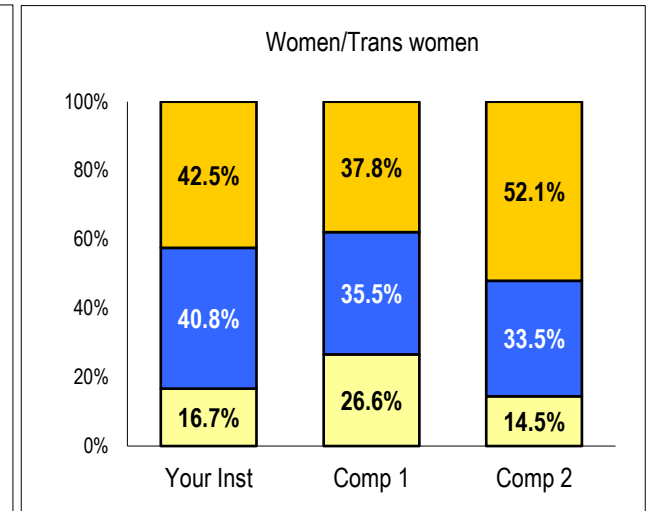
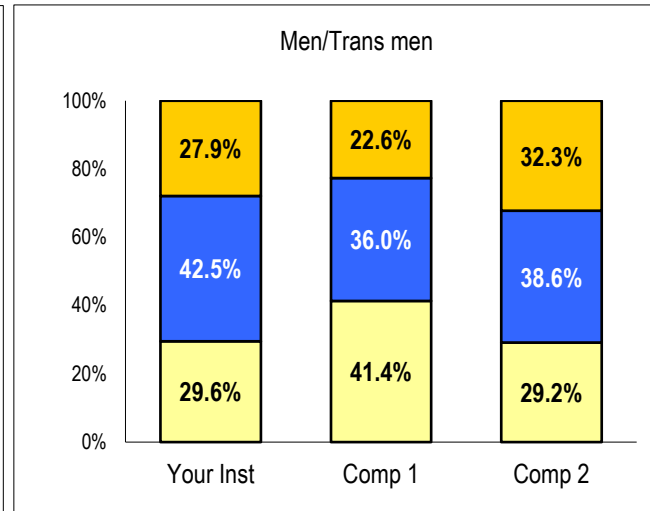
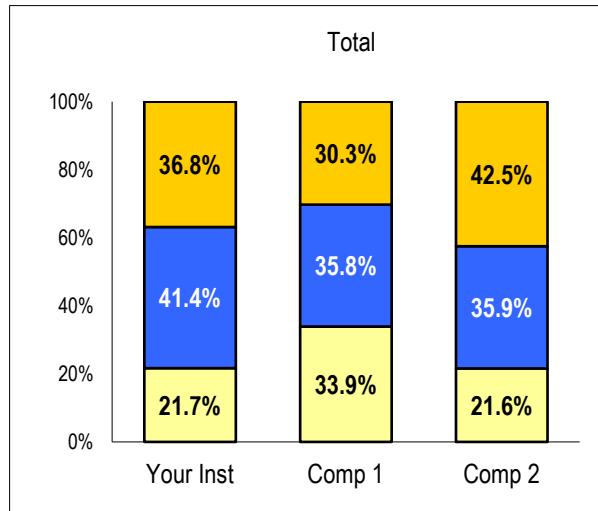


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Civic Engagement
CIRP Construct Percentage Report

Civic Engagement - measures the extent to which students are motivated and involved in civic, electoral, and political activities.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,851	21,325	4,867	720	9,596	2,158	1,097	11,729	2,709
High Civic Engagement	36.8%	30.3%	42.5%	27.9%	22.6%	32.3%	42.5%	37.8%	52.1%
Average Civic Engagement	41.4%	35.8%	35.9%	42.5%	36.0%	38.6%	40.8%	35.5%	33.5%
Low Civic Engagement	21.7%	33.9%	21.6%	29.6%	41.4%	29.2%	16.7%	26.6%	14.5%
Significance (based on High score group)	-	***	**	-	-	-	-	*	***

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

Indicate activities you did in the past year:

- *Demonstrated for a cause (e.g., boycott, rally, protest) (1.46)
- *Publicly communicated my opinion about a cause (e.g., blog, email, petition) (0.82)
- *Helped raise money for a cause or campaign (1.42)
- *Performed volunteer work (1.11)

Indicate the importance to you personally of each of the following:

- *Influencing social values (0.97)
- *Keeping up to date with political affairs (0.86)

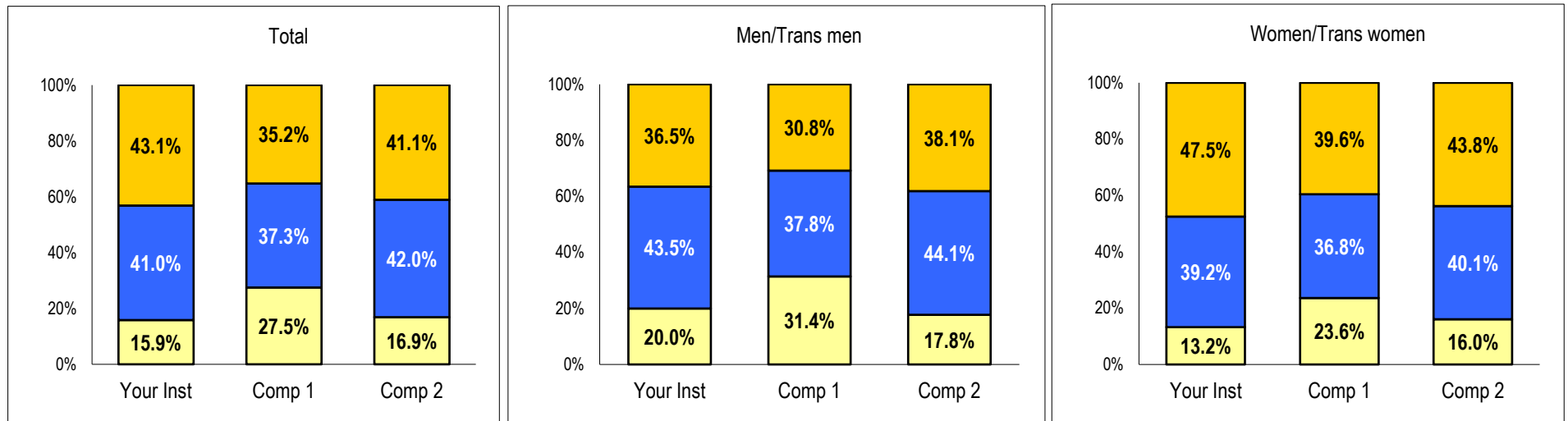


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
College Reputation Orientation
CIRP Construct Percentage Report

College Reputation Orientation - measures the degree to which students value academic reputation and future career potential as a reason for choosing this college.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,770	17,674	4,736	690	8,070	2,088	1,050	9,604	2,648
High College Reputation Orientation	43.1%	35.2%	41.1%	36.5%	30.8%	38.1%	47.5%	39.6%	43.8%
Average College Reputation Orientation	41.0%	37.3%	42.0%	43.5%	37.8%	44.1%	39.2%	36.8%	40.1%
Low College Reputation Orientation	15.9%	27.5%	16.9%	20.0%	31.4%	17.8%	13.2%	23.6%	16.0%
Significance (based on High score group)	-	***		-			-	***	

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

How important was each reason in your decision to come here?

- * This college's graduates get good jobs (7.64)
- * This college's graduates gain admission to top graduate/professional schools (5.92)
- * This college has a very good academic reputation (4.89)

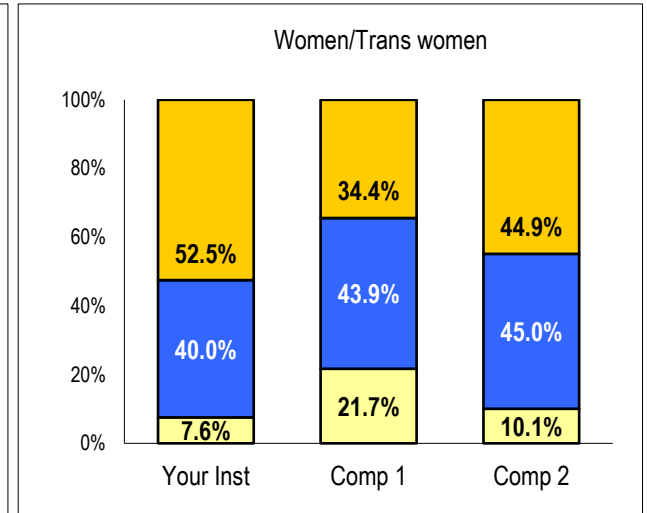
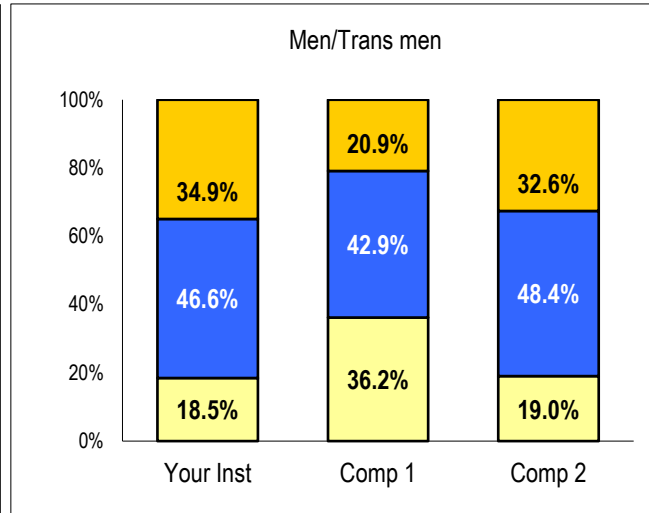
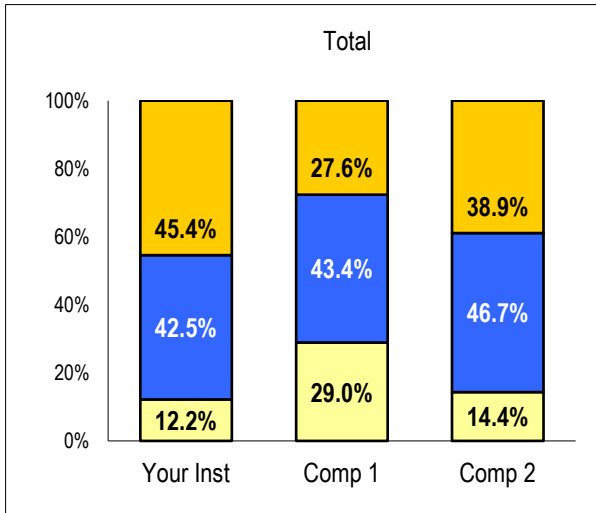


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Likelihood of College Involvement
CIRP Construct Percentage Report

Likelihood of College Involvement - is a unified measure of students' expectations about their involvement in college life generally.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,743	16,596	4,670	682	7,591	2,060	1,031	9,005	2,610
High Likelihood of College Involvement	45.4%	27.6%	38.9%	34.9%	20.9%	32.6%	52.5%	34.4%	44.9%
Average Likelihood of College Involvement	42.5%	43.4%	46.7%	46.6%	42.9%	48.4%	40.0%	43.9%	45.0%
Low Likelihood of College Involvement	12.2%	29.0%	14.4%	18.5%	36.2%	19.0%	7.6%	21.7%	10.1%
Significance (based on High score group)	-	***	***	-	***		-	***	***

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

What is your best guess as to the chances that you will:

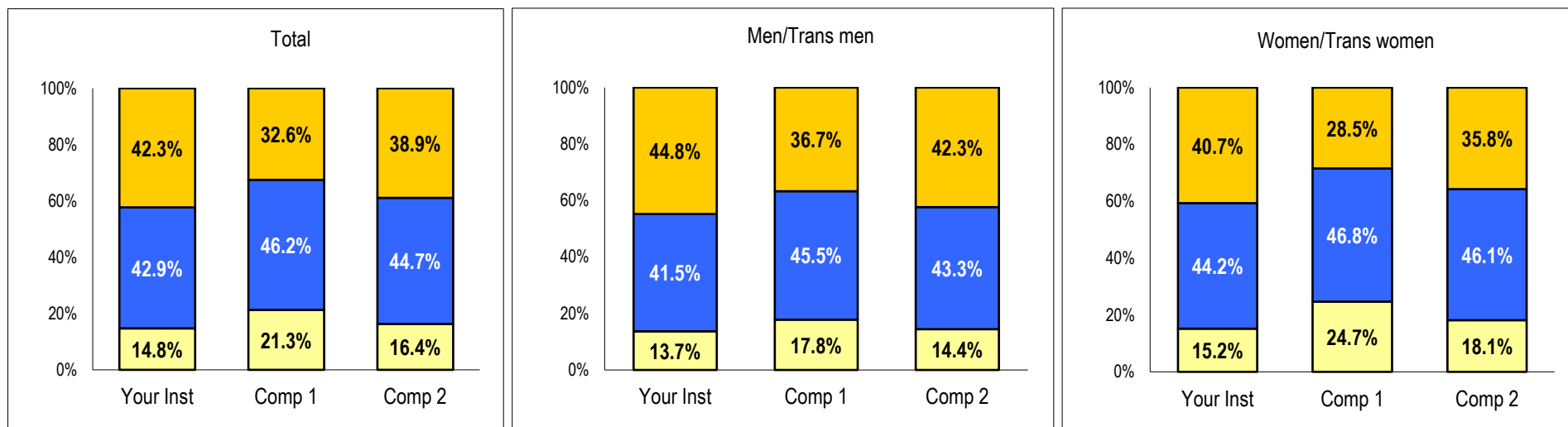
- * Participate in student clubs/groups (1.28)
- * Participate in volunteer or community service work (1.51)
- * Participate in a study abroad program (0.79)
- * Participate in student government (3.39)

2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Science Self-Efficacy
CIRP Construct Percentage Report

Science Self-Efficacy - is a measure of students' confidence in their ability to conduct scientific research.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,802	19,117	4,789	701	8,718	2,115	1,069	10,399	2,674
High Science Self-Efficacy	42.3%	32.6%	38.9%	44.8%	36.7%	42.3%	40.7%	28.5%	35.8%
Average Science Self-Efficacy	42.9%	46.2%	44.7%	41.5%	45.5%	43.3%	44.2%	46.8%	46.1%
Low Science Self-Efficacy	14.8%	21.3%	16.4%	13.7%	17.8%	14.4%	15.2%	24.7%	18.1%
Significance (based on High score group)	-	***		-	**		-	***	*

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

How confident are you that you can:

Use technical science skills (use of tools, instruments, and/or techniques) (1.48)

Generate an answerable research question (2.82)

Determine how to collect appropriate data (2.70)

Explain the results of a study (1.73)

Use scientific literature to guide research (2.40)

Integrate results from multiple studies (2.33)

Ask relevant questions (2.87)

Identify what is known and not known about a problem (2.79)

Understand scientific concepts (1.95)

See connections between different areas of science and mathematics (1.90)

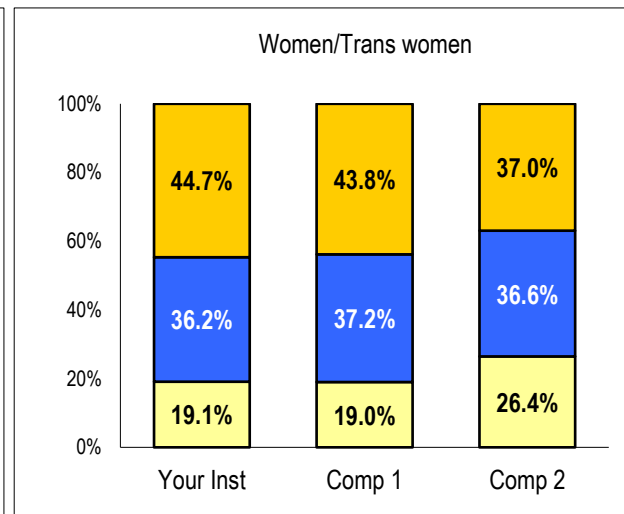
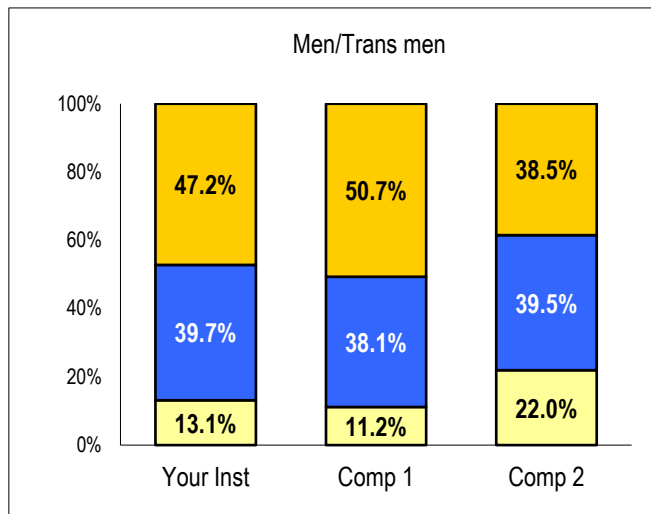
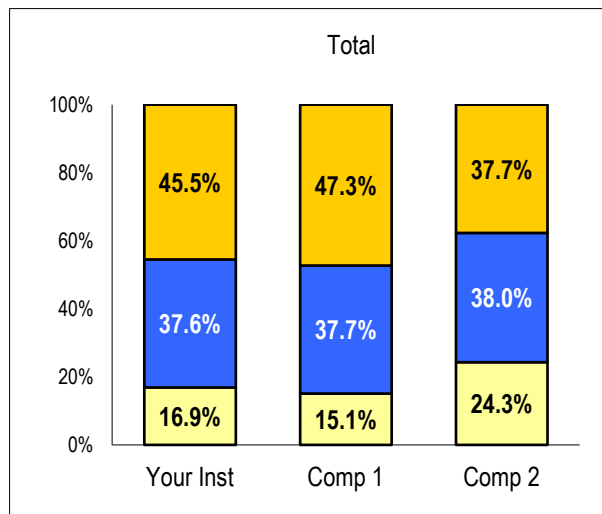


2019 CIRP Freshman Survey
First-time, Full-time Freshmen
Science Identity
CIRP Construct Percentage Report

Science Identity - The extent to which students conceive of themselves as scientists.

University of Virginia-Main Campus	Total			Men/Trans men			Women/Trans women		
	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2	Your Inst	Comp 1	Comp 2
Total (n)	1,748	16,985	4,689	686	7,778	2,065	1,032	9,207	2,624
High Science Identity	45.5%	47.3%	37.7%	47.2%	50.7%	38.5%	44.7%	43.8%	37.0%
Average Science Identity	37.6%	37.7%	38.0%	39.7%	38.1%	39.5%	36.2%	37.2%	36.6%
Low Science Identity	16.9%	15.1%	24.3%	13.1%	11.2%	22.0%	19.1%	19.0%	26.4%
Significance (based on High score group)	-		***	-		**	-		**

Note: Significance * p<.05, ** p<.01, *** p<.001



Survey items and estimation "weights":

To what extent are the following statements true of you:

I have a strong sense of belonging to the community of scientists (3.52)

I derive great personal satisfaction from working on a team that is doing important research (1.78)

I think of myself as a scientist (5.54)

I feel like I belong in the field of science (4.43)