

PREDICTORS OF ENGAGEMENT IN LEARNING COMMUNITIES

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Background: UAB School of Medicine

- 735 students
- All students in Birmingham for preclinical years (MS1-2)
- 3rd and 4th year on branch campuses
- Dual mission:
 - Physician scientists
 - Primary care providers for rural underserved populations

Learning Communities at UAB

Unfunded (2009-2015)

- Volunteer mentors, sessions run mostly by students leaders
- Less structured
- No set schedule
- Minimal common content

Funded (Fall 2015 on)

- 1 funded mentor per LC (11 total)
- Program Director (Noah)
- Assistant Dean (Harada)
- Structured sessions
- Set meeting times
- Formal curriculum

UAB Learning Communities Today

- Curricular content includes:
 - Medical ethics
 - Communication skills
 - Professionalism
 - Burnout & resilience
 - Social determinants of health and more
- Distinct from formal clinical education (ICM)
- 12-18 students per class, 4 classes per LC
- Two students per LC represent their community to Student Government and Administration

METHODS

Learning Communities Outcomes Survey - 2016

- Funded by intramural Dean's Research Award
- Outcomes of interest:
 - Health
 - Wellness
 - Resilience
 - Burnout
 - Professionalism
- No previous baseline data
- “Quasi” pre-post design
- Ongoing longitudinal surveys

Survey

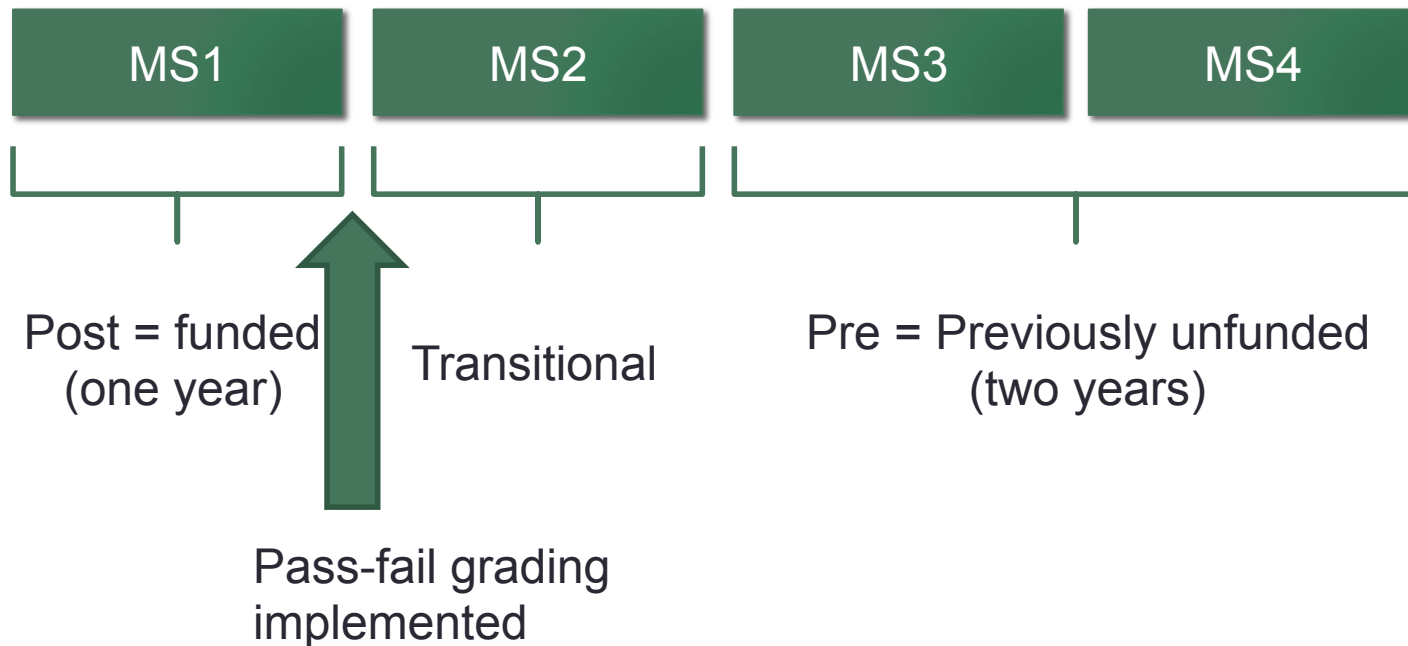
- January - March 2016
- Online survey (10-15 min)
 - Paper version available
- All MS1 – MS4 students (total of 735)
- Responses only identifiable to PI, data then de-identified
- Survey content (189 variables)
 - Demographics
 - Miscellaneous stress-related items
 - Wellness indicators

Learning Communities Outcomes Survey - 2016

Wellness Outcome Measures
CDC HR-QOL 4 item (physical/mental health)
Positive and Negative Affect Scale (PANAS)
Perceived Stress Scale (PSS)
Connor-Davidson Resilience Scale (CD-RISC)
Maslach Burnout Inventory – General Survey
Arizona Integrated Outcomes Scale (general wellness)
Interpersonal Reactivity Index (empathy)

Learning Communities Outcomes Survey - 2016

2016



Learning Communities Outcomes Survey - 2016

Four Year Plan

		Survey Year			
Curricular Year		2016	2017	2018	2019
	MS1	c/o 2019	c/o 2020	c/o 2021	c/o 2022
	MS2	c/o 2018	c/o 2019	c/o 2020	c/o 2021
	MS3	c/o 2017	c/o 2018	c/o 2019	c/o 2020
	MS4	c/o 2016	c/o 2017	c/o 2018	c/o 2019

Current data set

RESULTS

- 523 surveys completed (71%)
 - 2 dropped because they left the engagement item blank
 - 521 subjects in data analysis

Sample Characteristics

	N	%
Age		
Younger than 25	264	50.8%
25-29 years	227	43.6%
30-35 years	22	4.2%
Older than 35	7	1.3%
Missing	1	0.2%
Gender		
Women	249	47.8%
Men	271	52.0%
Missing	1	0.2%

Sample Characteristics

	N	%
Race		
White	391	75.1%
African American	14	2.7%
Asian	62	11.9%
American Indian/Alaska Native	4	0.8%
Other/multiple	37	7.1%
Prefer not to say	13	2.5%
Ethnicity		
Hispanic	12	2.3%
Not Hispanic	497	95.4%

Sample Characteristics

	N	%
Campus		
Birmingham	276	53.0%
Huntsville	103	19.8%
Montgomery	53	10.2%
Tuscaloosa	89	17.1%
MS Class		
MS1	143	27.5%
MS2	155	29.8%
MS3	153	29.4%
MS4	70	13.4%

Engagement Survey Item

Overall, how would you rate your engagement and involvement in your learning community?

(circle the appropriate number)

Not very
Engaged

Somewhat
Engaged

Very
Engaged

1

2

3

4

5

6

7

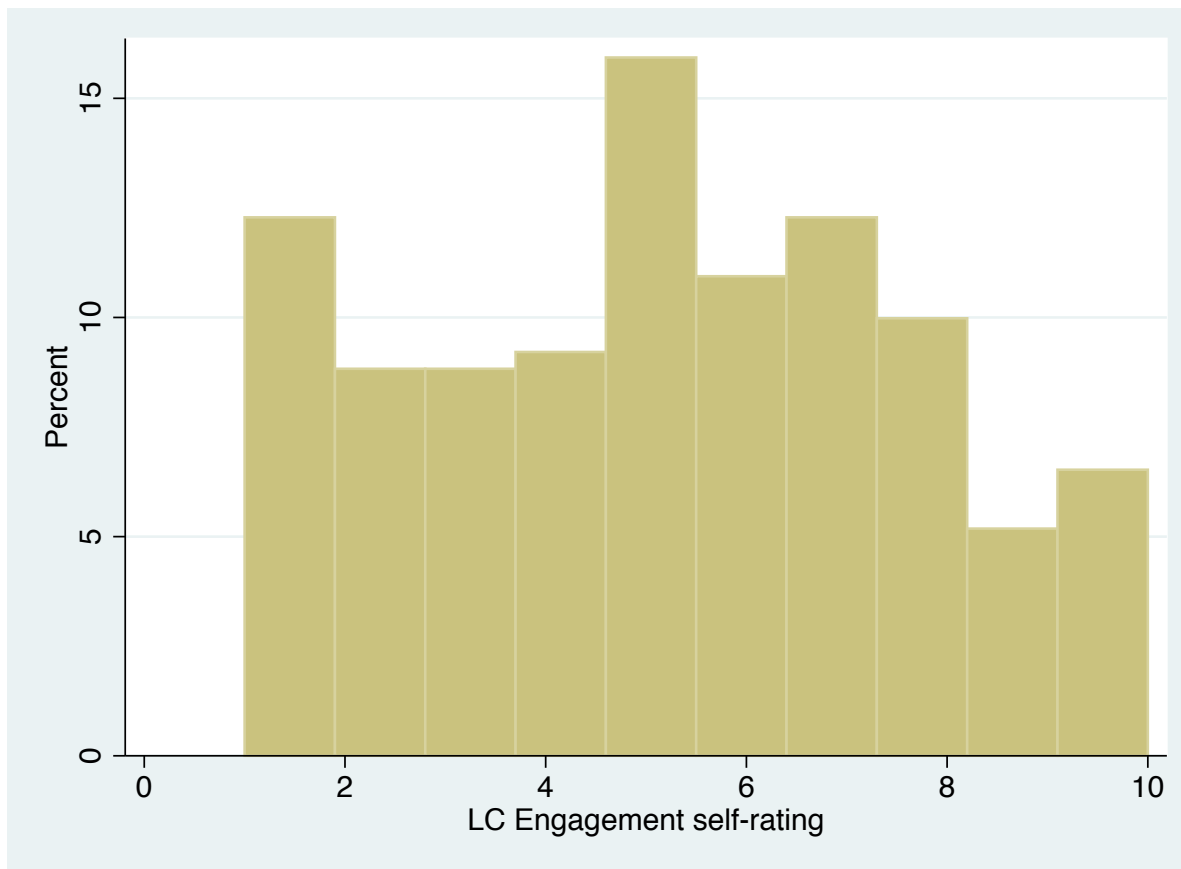
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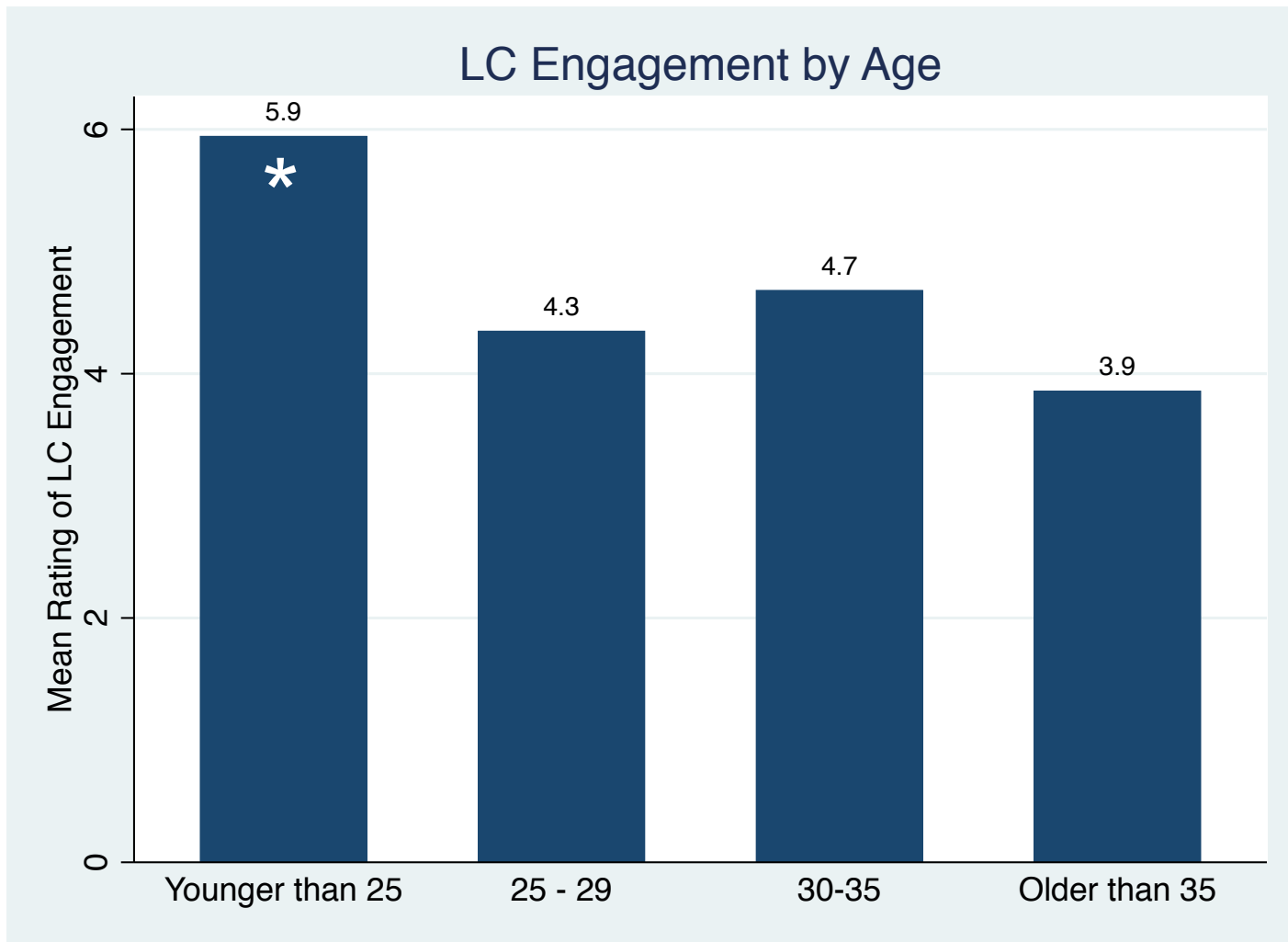
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Item	N	%
1	64	12.3%
2	46	8.8%
3	46	8.8%
4	48	9.1%
5	83	15.9%
6	57	10.9%
7	64	12.3%
8	52	10.0%
9	27	5.2%
10	34	6.5%

Engagement Rating – Full Sample



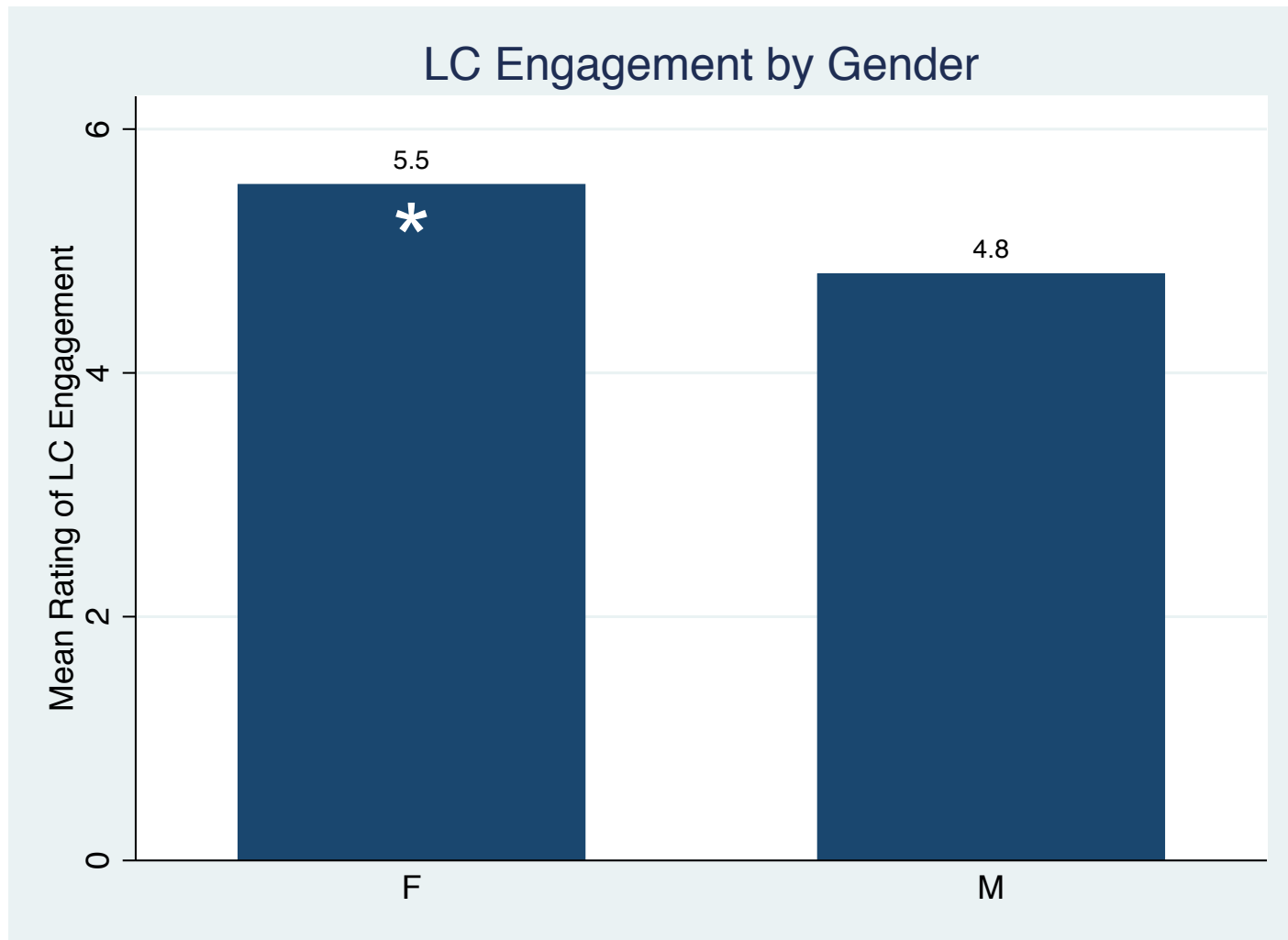
Age



Age

Age	N	%	Correlation with engagement item
Younger than 25	264	50.8%	0.30**
25-29 years	227	43.6%	-0.27**
30-35 years	22	4.2%	-0.04
Older than 35	7	1.3%	-0.07
Missing	1	0.2%	--

Gender



Gender

Gender	N	%	Correlation with engagement item
Women	249	47.8%	0.14**
Men	271	52.0%	-0.14**
Missing	1	0.2%	--

No significant relationship with LC engagement

- Race
- Ethnicity
- Campus assignment
- Rural/urban upbringing

Race (Self-report)

Race	N	%	Correlation with engagement item
White	391	75.1%	0.03
African American	14	2.7%	0.02
Asian	62	11.9%	-0.01
American Indian/Alaska Native	4	0.8%	0.01
Native Hawaiian or Pacific Islander	0	0.0%	--
Other	13	2.5%	-0.04
Multiple	24	4.6%	-0.02
Prefer not to say	13	2.5%	-0.02

Hispanic (Self-Report)

	N	(%)	Correlation with engagement item
Hispanic	12	2.3%	0.01
Not Hispanic	497	95.4%	--
Prefer not to say	10	1.9%	--

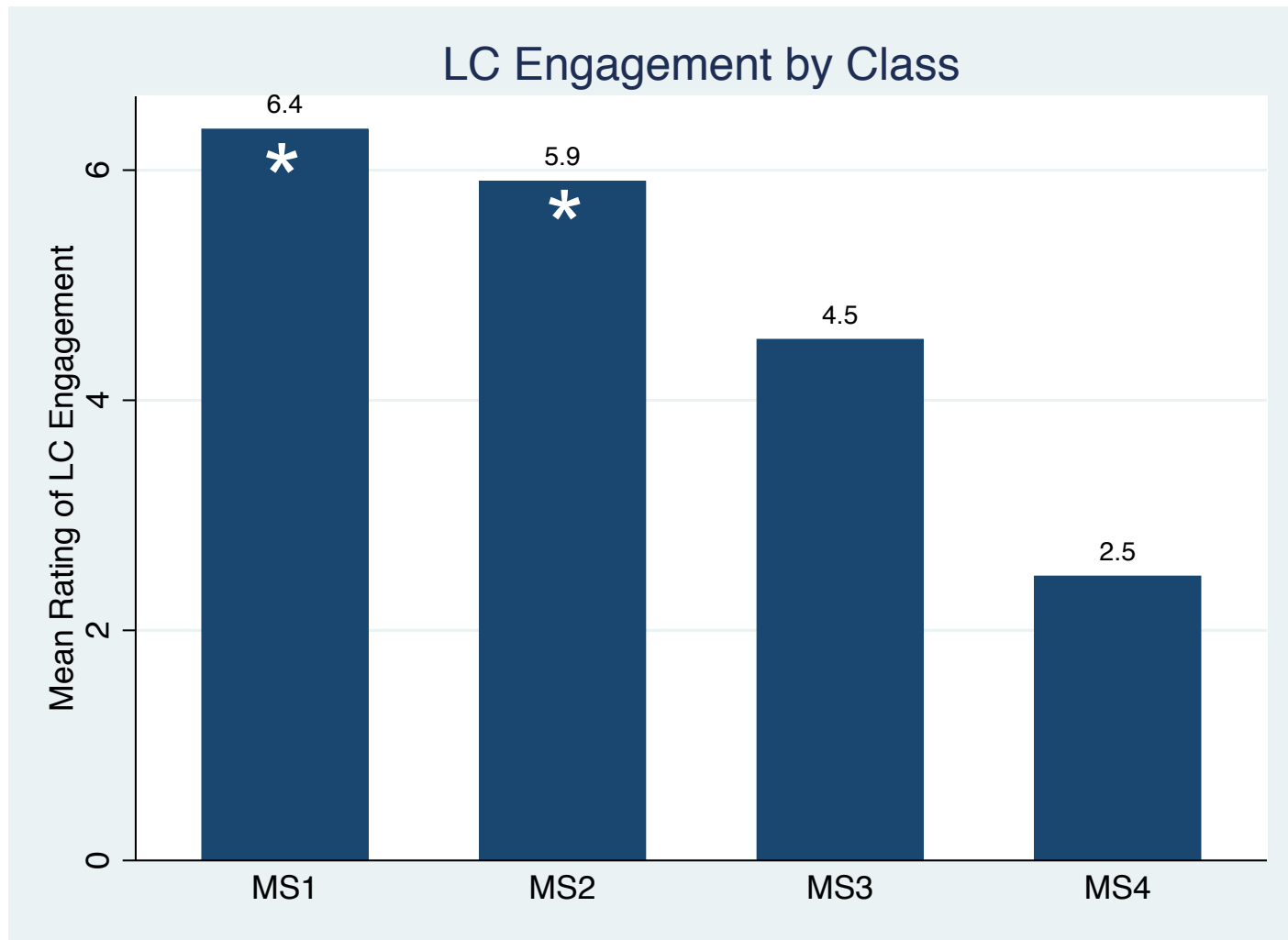
Background/upbringing (Self-Report)

Background	N	(%)	Correlation with engagement item
Rural upbringing	151	29.0%	0.02
Suburban upbringing	316	60.7%	-0.02
Urban upbringing	36	6.9%	-0.05
From Alabama	401	77.0%	-0.05
From out of state	77	14.8%	-0.06

Campus

Campus	N	%	Correlation with engagement item
Birmingham	276	53.0%	-0.01
Huntsville	103	19.8%	0.02
Montgomery	53	10.2%	-0.02
Tuscaloosa	89	17.1%	0.01

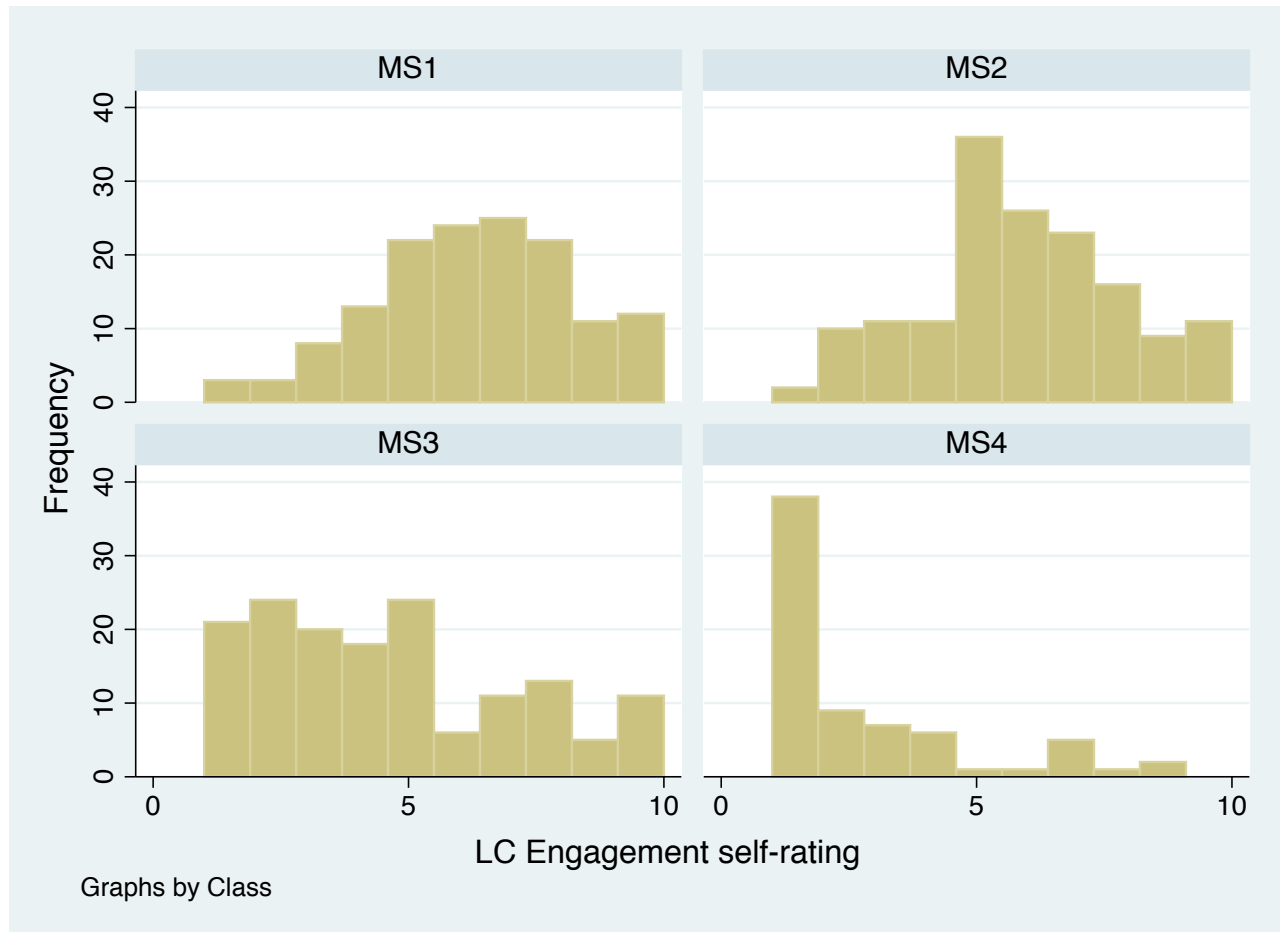
Class



Class

Class	N	%	Correlation with engagement item
MS1	143	27.5%	0.27**
MS2	155	29.8%	0.18**
MS3	153	29.4%	-0.15**
MS4	70	13.4%	-0.40**

Engagement Rating – by Class



Multivariate Analysis

Predictor	Coeff.	<i>p</i>
Gender (male)	-0.52	0.01
Age – Younger than 25 (reference)	--	--
Age – 25 – 29 years	-0.27	0.28
Age – 30-35 years	-0.22	0.68
Age – Older than 35	-0.58	0.53
MS1 (reference)	--	--
MS2	-0.38	0.18
MS3	-1.66	<0.001
MS4	-3.62	<0.001

Adj. $R^2 = 0.23$

LC Engagement and Affect (PANAS)

Predictor	Positive Affect		Negative Affect	
	Coeff.	<i>p</i>	Coeff.	<i>p</i>
Gender (male)	0.76	0.91	-1.57	0.009
MS1 (reference)	--	--	--	--
MS2	-1.15	0.13	-0.02	0.98
MS3	0.61	0.45	-0.92	<0.001
MS4	3.05	0.004	-4.67	<0.001
LC Engagement	0.29	0.02	-0.13	0.30

Adj R^2 = 0.03

Adj R^2 = 0.05

LC Engagement and Burnout (Maslach)

Predictor	Exhaustion		Cynicism		Professional Efficacy	
	Coeff.	<i>p</i>	Coeff.	<i>p</i>	Coeff.	<i>p</i>
Gender (male)	-1.41	0.02	0.91	0.13	0.03	0.96
MS1 (reference)	--	--	--	--	--	--
MS2	-0.69	0.37	2.46	0.002	0.47	0.50
MS3	-1.27	0.11	2.28	0.005	1.77	0.02
MS4	-7.30	<0.001	-0.99	0.36	3.34	0.001
LC Engagement	-0.16	0.19	-0.22	0.08	0.29	0.01

Adj R^2 = 0.10

Adj R^2 = 0.04

Adj R^2 = 0.03

CONCLUSIONS

- Formal, funded model for MS1 & MS2 gets far higher engagement than the student-led model for MS3 & MS4
 - More to come on outcomes...
- Race, ethnicity, background, and campus assignment were not associated with level of engagement
- Women may engage more in LCs than men
 - Curricular implications?