

# Sustainability Education at The University of Iowa

Analytic Methods in Planning 1 (URP 6200)

School of Urban and Regional Planning

Fall 2016

Instructor: Dr. Lucie Laurian

# Sustainability Education at The University of Iowa

Analytic Methods in Planning 1 (URP 6200)

School of Urban and Regional Planning

Fall 2016

Instructor: Dr. Lucie Laurian

## Survey Goals

- Assess Undergraduate Sustainability Education at the UI
- Identify strengths and weaknesses
- Meet STARS certification criteria
- Provide a benchmark for tracking progress

## Survey Methods

- Web Survey
- Topics: Undergraduate students' knowledge, attitudes, behaviors, and backgrounds
- Full questionnaire provided in Appendix
- Simple random sample of 10% of all UI undergraduates
- Email and two reminders in October 2016
- Incentives: A bike and 10 \$25 gift certificates
- Final sample size: 383 (response rate: 16%)

## Table of Contents

I. Survey Sample

II. Sustainability

Knowledge

III. Students'

Background &

Explanatory Factors

IV. Sustainability

Behaviors

V. Changes in

Sustainability

Attitudes at the UI

VI. Conclusions &

Suggestions

Appendix

(questionnaire)

## I. Survey Sample

Good student mix, but:

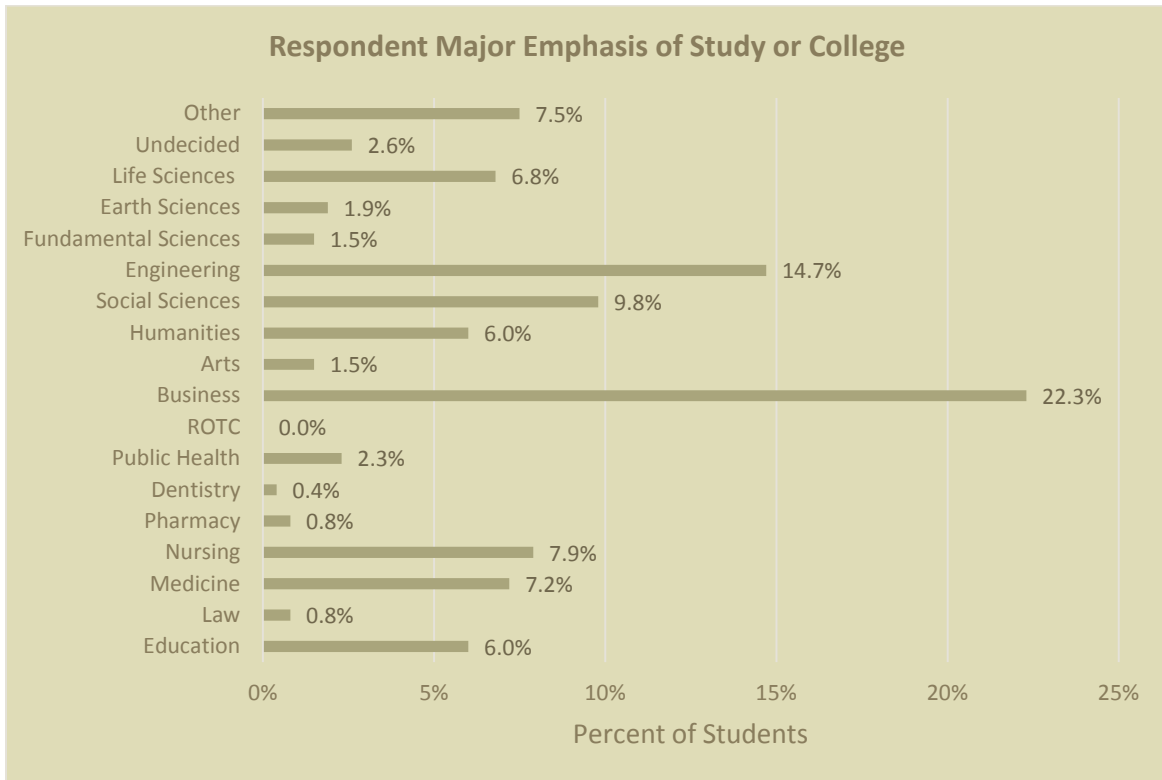
- Oversampled Freshmen and undersampled Seniors
- Oversampled Women and undersampled Men
- Vastly undersampled international students

Year	Survey	UI	
Freshman	33%	23.6%	*Oversampled
Sophomore	19%	22.3%	
Junior	22%	23.2%	
Senior	23%	30.6%	*Undersampled
Not credit-seeking	1%	0%	
Other	2%	0%	

Gender	Survey	UI	
Male	34%	47.4%	*Undersampled
Female	65%	52.4%	*Oversampled
Gender-Fluid or Queer	0%	0%	
Transgender	1%	0.1%	*
Other	0%	0%	

Origin	Survey	UI	
Iowa	66%	54.2%	
United States (out-of-state)	33%	34.0%	
International	1%	11.8%	*Undersampled

## Respondents' Majors



- Business: 22%
- Health disciplines<sup>1</sup>: 18.6%
- Natural & Fundamental Sciences<sup>2</sup>: 24.9%
- Humanities & Social Sciences<sup>3</sup>: 24.1%
- Other/Undecided: 18.6%

<sup>1</sup> Includes: Public Health, Pharmacy, Nursing, Medicine

<sup>2</sup> Includes: Life, Earth, and Fundamental Sciences and Engineering

<sup>3</sup> Includes: Humanities, Social Sciences, Arts, Law, and Education

## II. SUSTAINABILITY KNOWLEDGE

Response to Sustainability Knowledge Questions (full questions are in Appendix).

### Environmental Sustainability Questions

Questions	Percent Correct
3 pillars of sustainability?	11%
LEED certification	43%
Carbon footprint	90%
Source of man-made CO2 emissions	60%
Main source of power generation in Iowa	27%
Main cause of water pollution in Iowa	68%
Effect of current climate change trends	68%
Climate milestone announced in 2016	37%
Midwest experiencing climate effects	51%
What do we expect to see in the Midwest	27%

### Economic Sustainability Questions

Questions	Percent Correct
U.S. electricity prices are too low because...	72%
Best way to support your local economy is?	92%

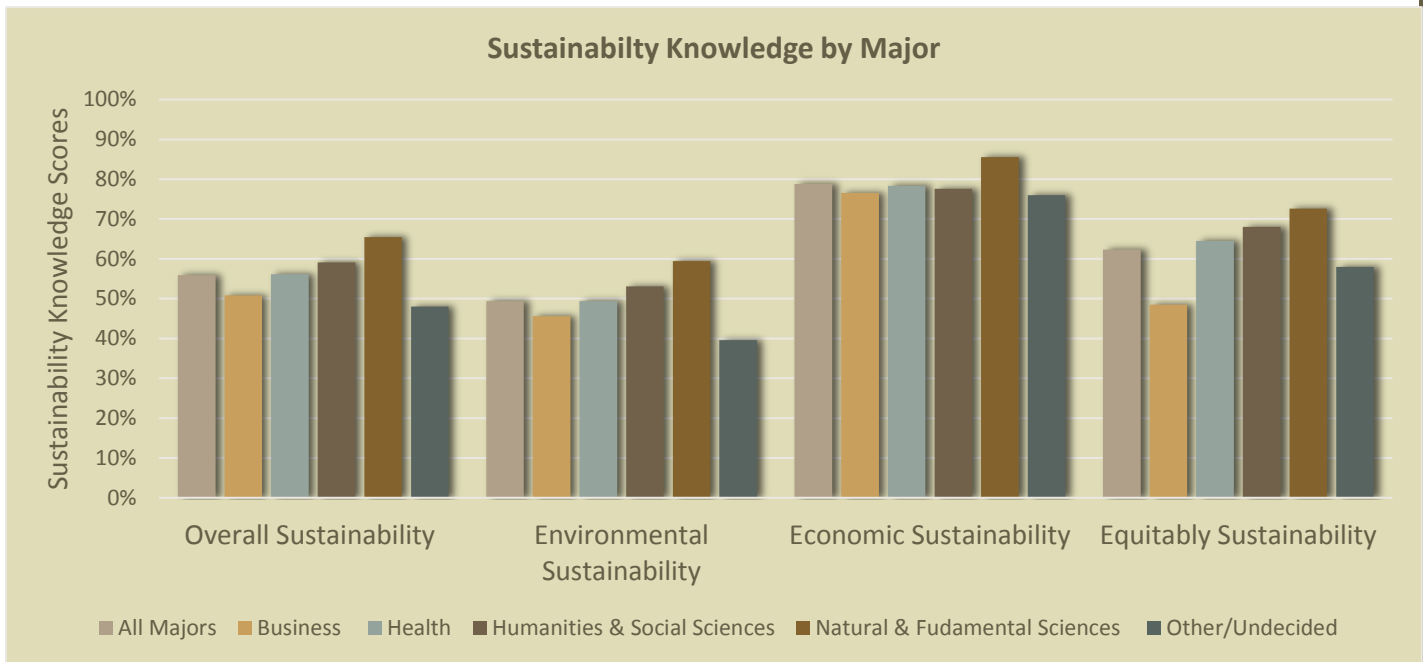
### Social Sustainability Questions

Questions	Percent Correct
An example of environmental justice is...	71%
A way to address social equity is...	60%

## Sustainability Knowledge by Major, Year in school, and Gender

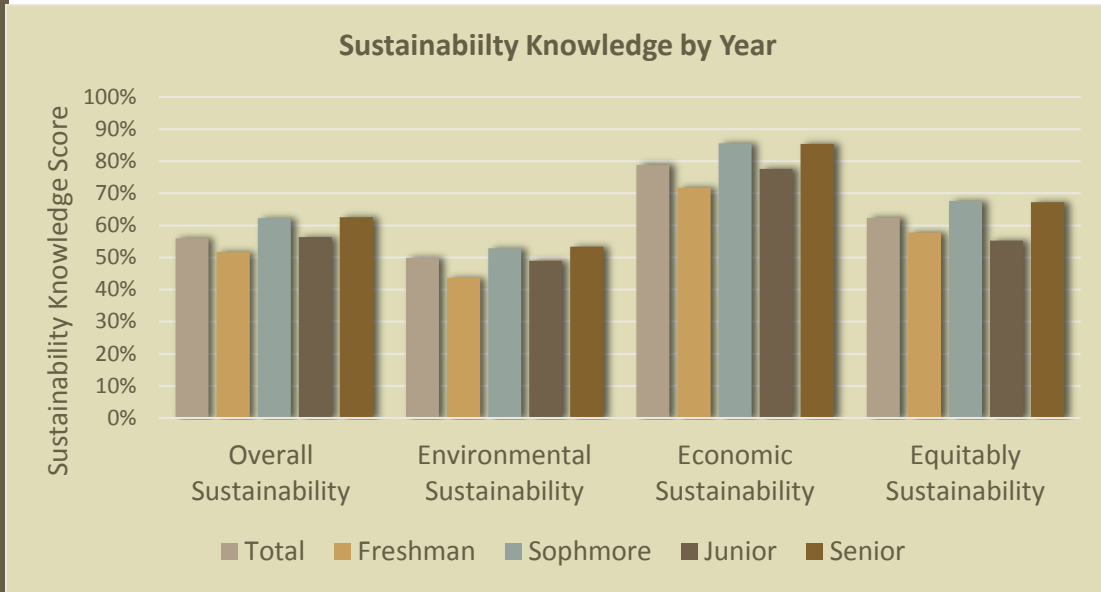
### Major & Sustainability Knowledge

Natural and Fundamental Science Majors have the highest knowledge levels, for all three dimensions of sustainability. Business and Other/undecided Majors have the lowest knowledge levels. Business Majors have particularly low knowledge of the equity dimension of sustainability.

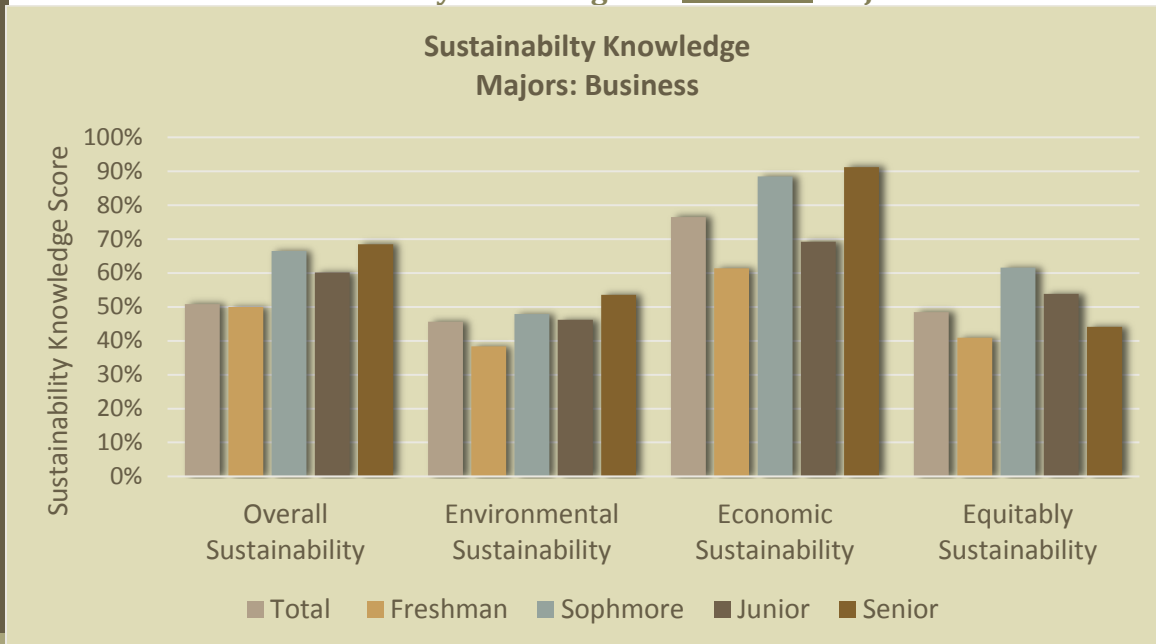


### Year in School & Sustainability Knowledge

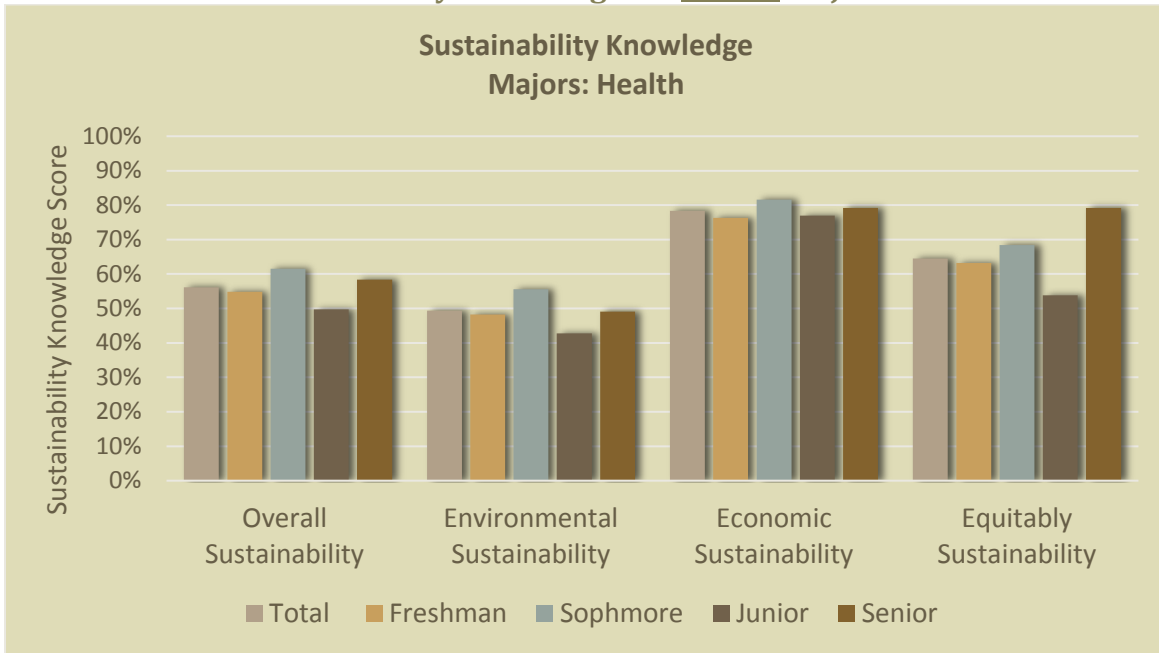
Knowledge does not improve by year in school, regardless of major. Sophomores and Seniors tend to have higher knowledge levels than Freshmen and Juniors.



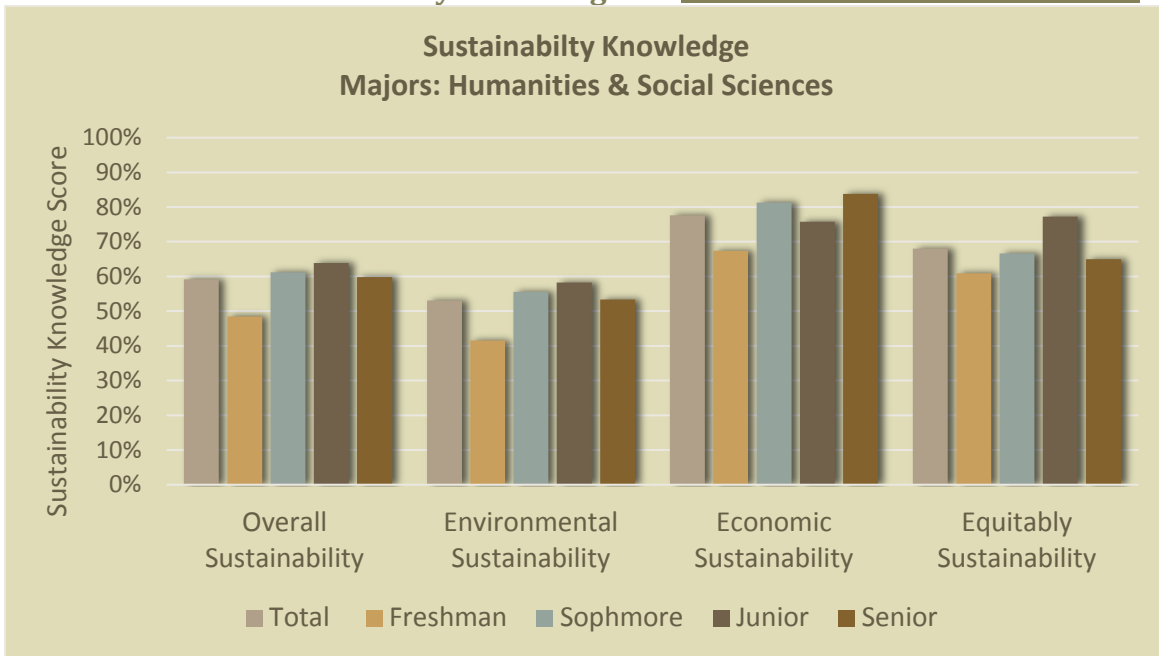
### Year in school & Sustainability Knowledge for Business Majors



**Year in school & Sustainability Knowledge for Health Majors**

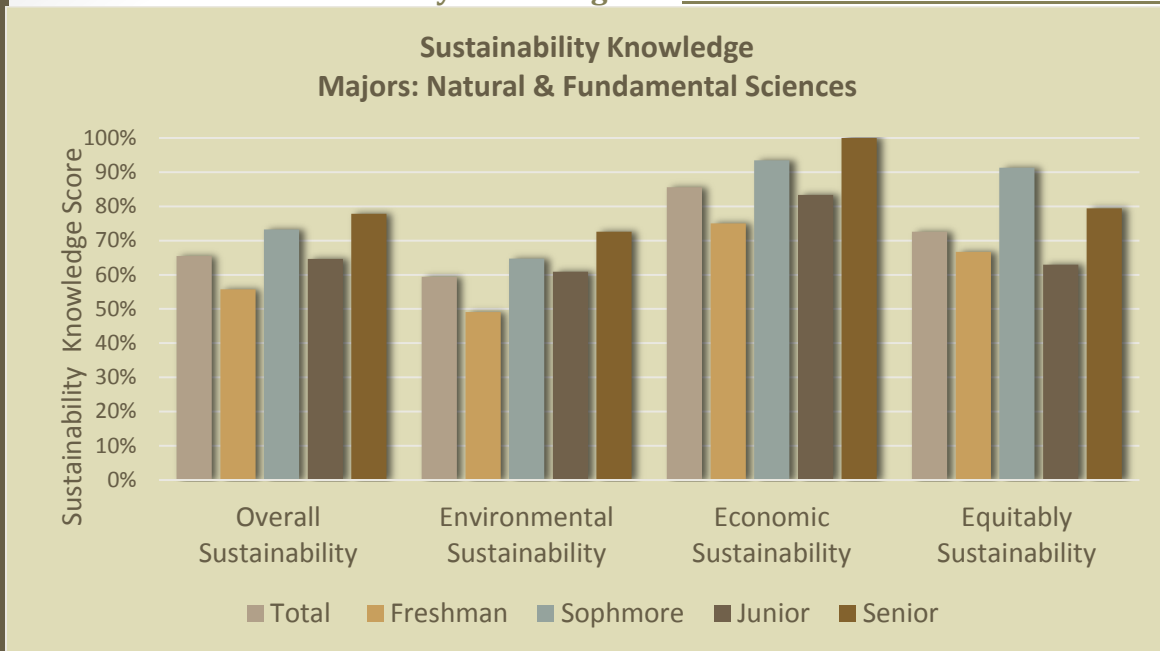


**Year in school & Sustainability Knowledge for Humanities and Social Sciences Majors**

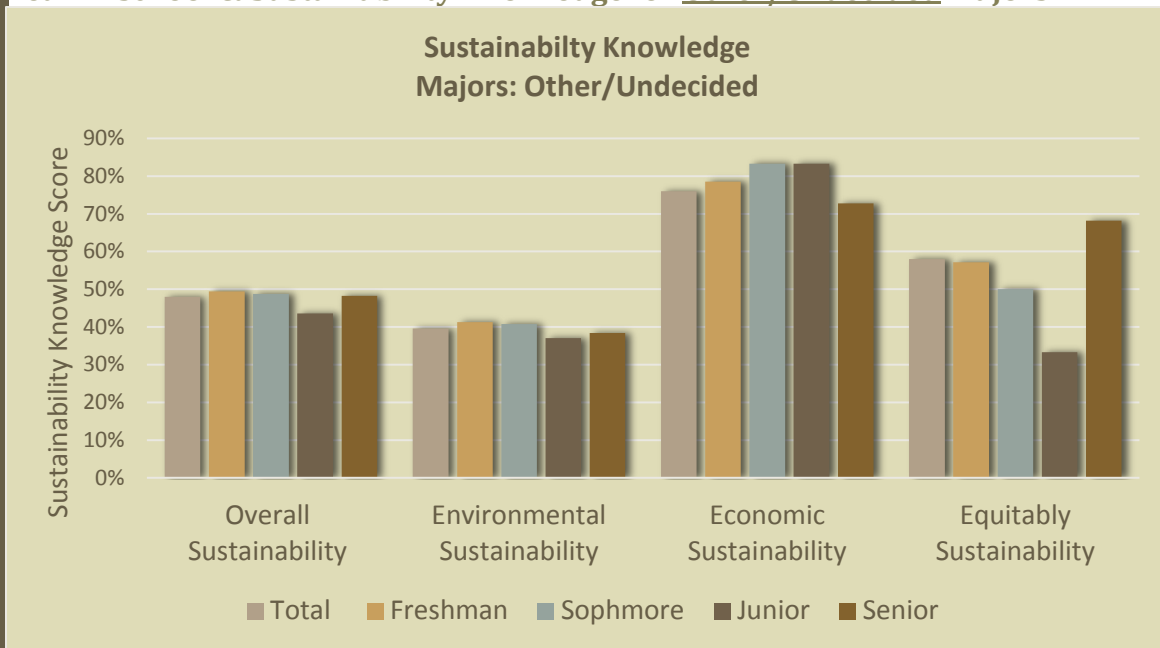




Year in school & Sustainability Knowledge for Natural and Fundamental Sciences Majors

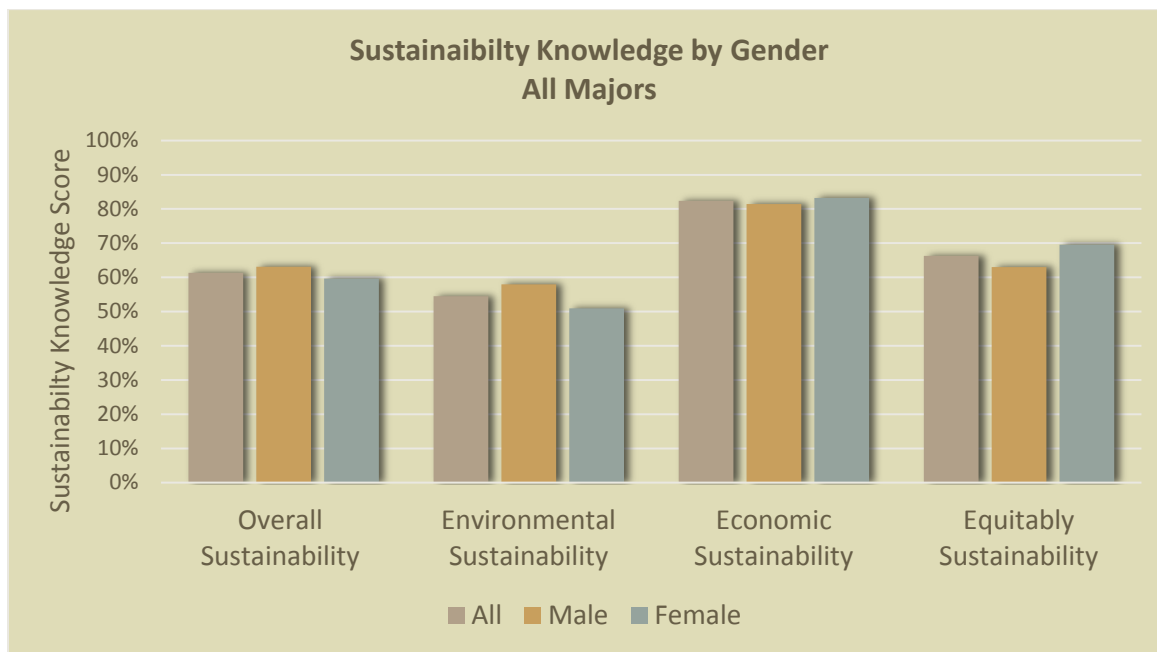


Year in school & Sustainability Knowledge for Other/Undecided Majors

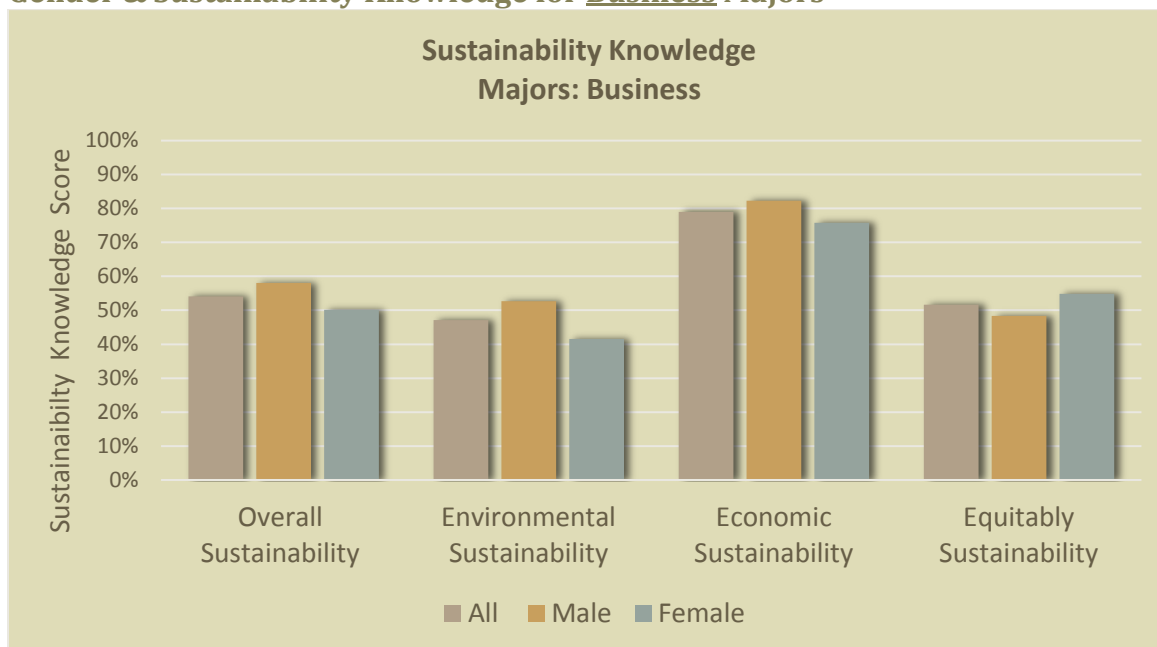


## Gender & Sustainability Knowledge

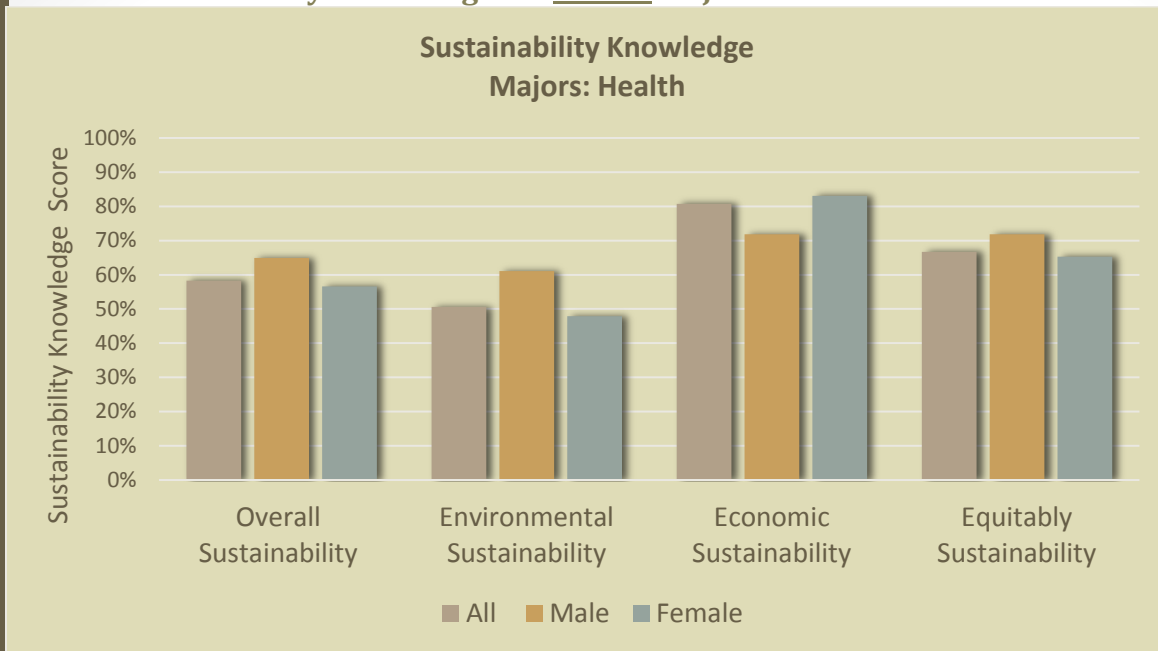
Female students have lower Sustainability knowledge than males, in particular for environmental sustainability questions. This gender gap is apparent for Business, Health and Humanities/Social sciences majors, but not for Natural/Fundamental Sciences majors or Other/Undecided Majors.



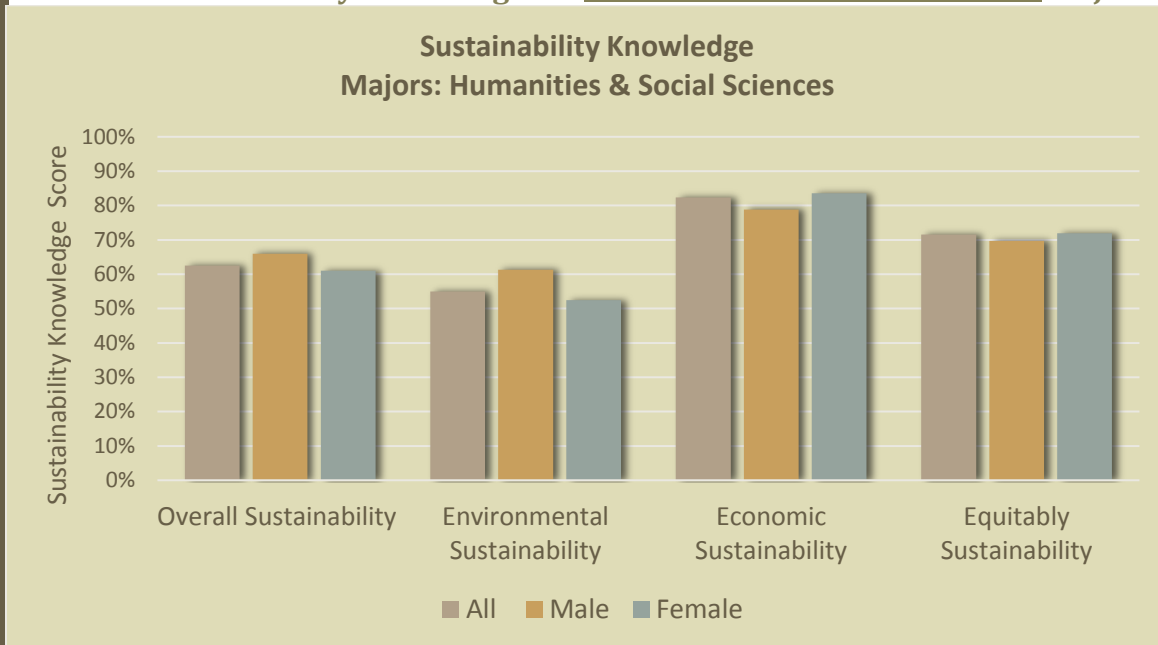
## Gender & Sustainability Knowledge for Business Majors



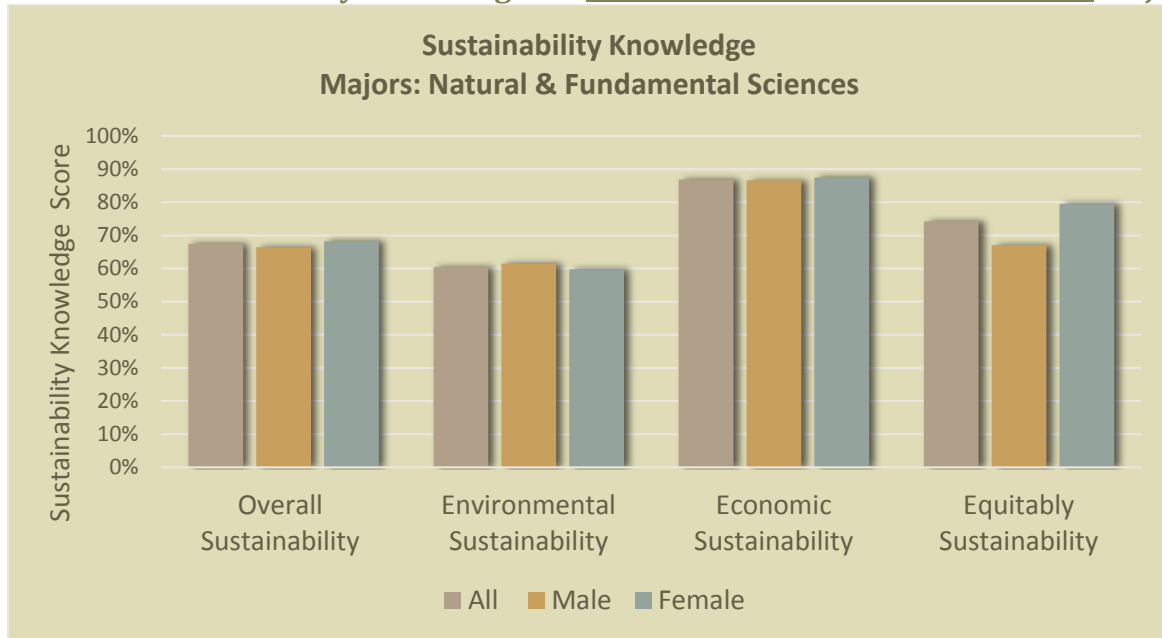
### Gender Sustainability Knowledge for Health Majors



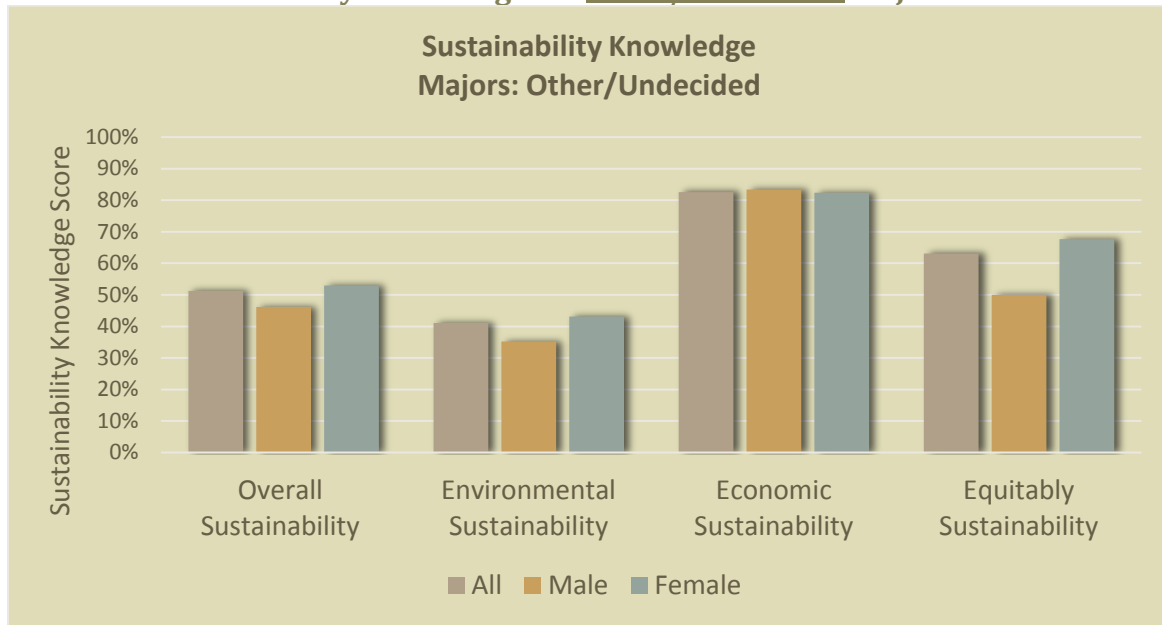
### Gender & Sustainability Knowledge for Humanities and Social Sciences Majors



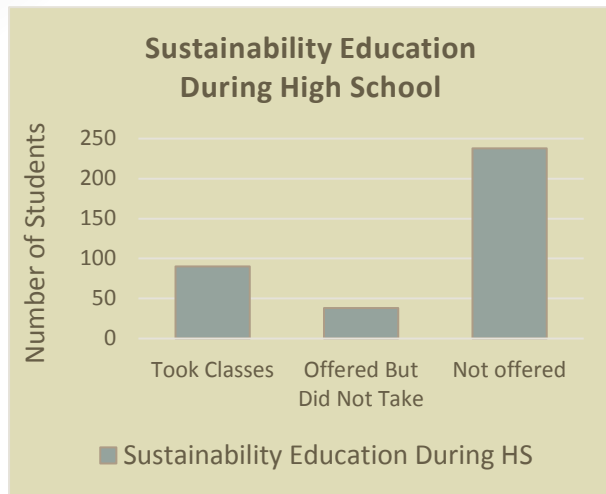
### Gender & Sustainability Knowledge for Natural and Fundamental Sciences Majors



### Gender & Sustainability Knowledge for Other/Undecided Majors

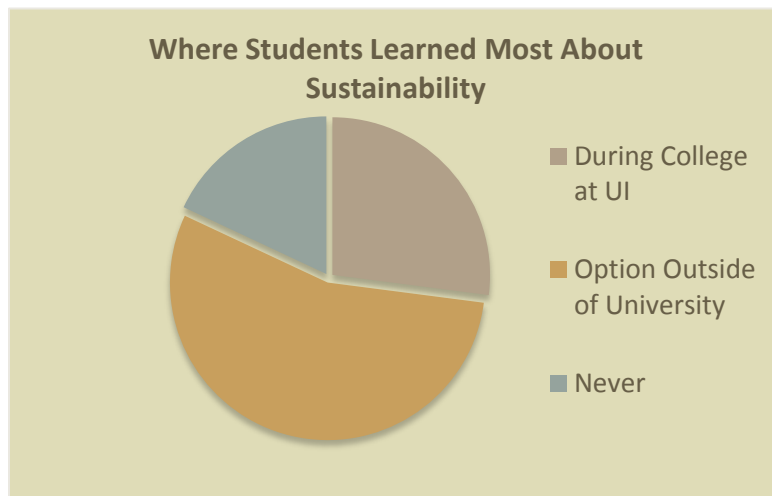


## Sustainability Education Before Attending the UI



- 48% learned about sustainability in high school
- 25%: sustainability was part of their high school education
- 65% of high schools offered little/no sustainability education

## Sustainability Education at the UI



- 27% learned the most at UI
- 55% learned the most outside the UI
- 18% have never learned

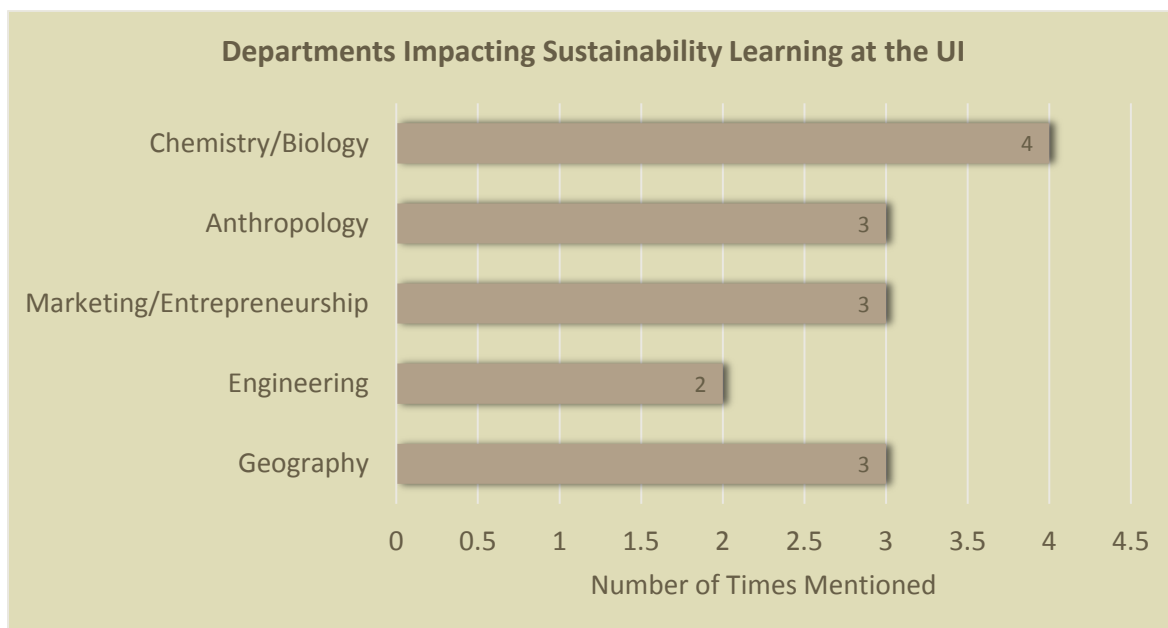
## Sustainability Courses at the UI

Sustainability Courses at the UI	
Number of Courses Taken	Percentage of Students
0	67.0%
1	17.5%
2	8.6%
3-5	6.4%
6-8	0.3%
8-10	0.3%
11+	0%

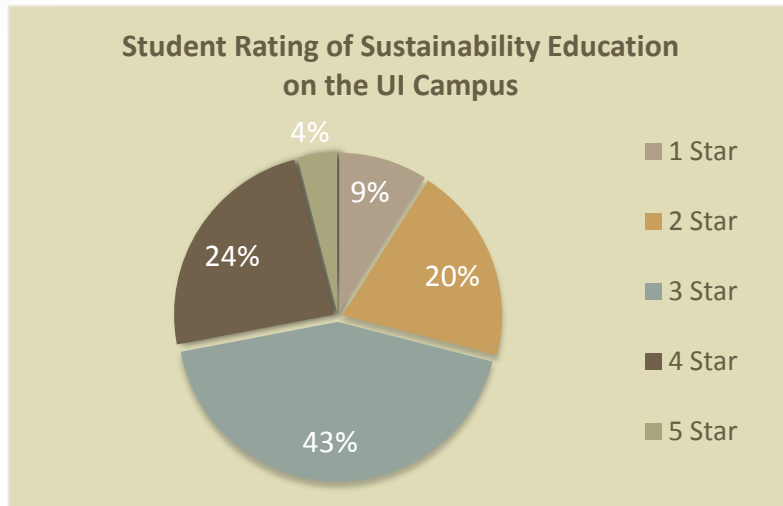
- 2/3 have not taken any UI course in which sustainability was a major topic.
- For students who have taken sustainability courses:
  - Most have taken 1-2 courses
  - 21% have taken 3+

## Courses and Departments with the Most Impact on Sustainability Learning at the UI as reported by respondents

Class Name (with 4 or more mentions)	Number of Mentions
Contemporary Env. Issues	20
Intro to Marketing	7
Engineering Problem Solving I	7
Intro to Env. Science	5
General Chemistry	4
Social Entrepreneurship	4
The Global Environment	4

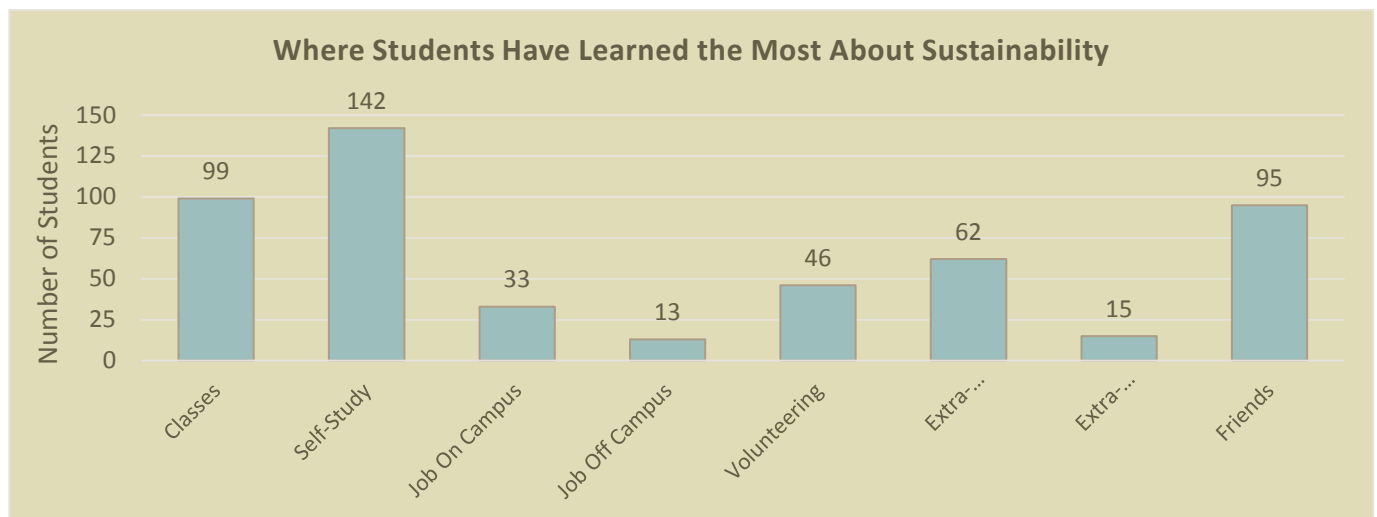


## Students' Rating of the UI Sustainability Education



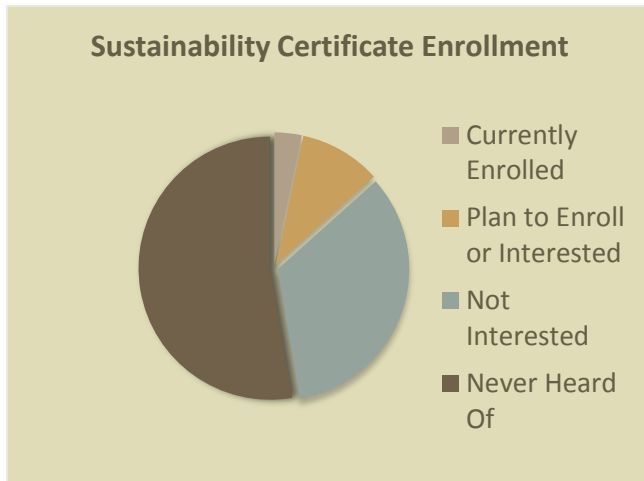
- 9%: needs improvement
- 20%: needs some improvement
- 43%: neutral
- 28%: good to excellent

## Where do Students Learn the Most about Sustainability?



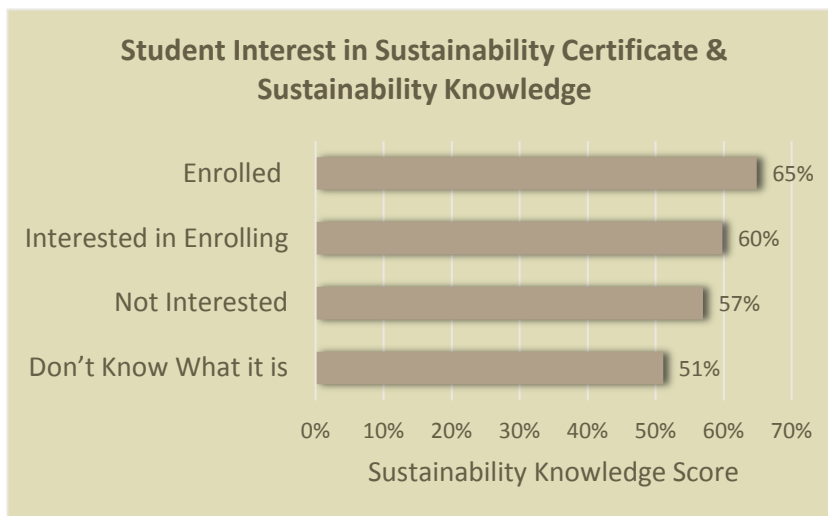
- 28.1% Self-study
- 19.6% Classes
- 18.8% Friends
- 17.2% Extra-Curricular (on/off campus)
- 9.1% Volunteering
- 9.1% Job (on/off campus)

## Student Awareness of Sustainability Certificate



- 4%: currently enrolled
- 10%: plan to enroll or are interested
- 34%: not interested
- 53%: have never heard of it

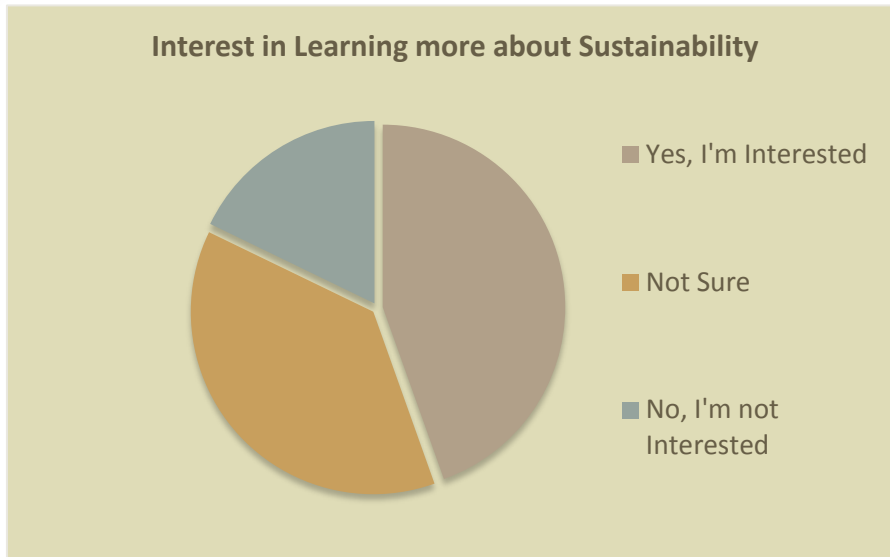
## Sustainability Knowledge and Enrollment/Interest in the Sustainability Certificate and



- Students enrolled in the sustainability certificate or interested in enrolling are statistically more knowledgeable than those who are not interested or do not know what it is.

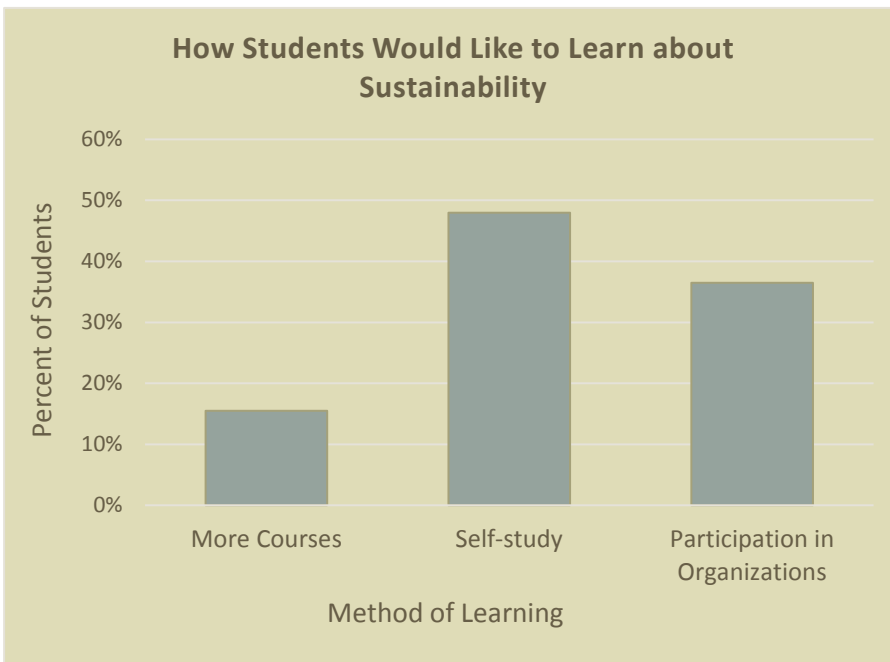


## Interest in Further Sustainability Education



- 45%: interested in learning more about sustainability
- 37%: not sure if they are interested in learning more about sustainability
- 18%: not interested in learning more about sustainability

## How Students would like to Learn about Sustainability

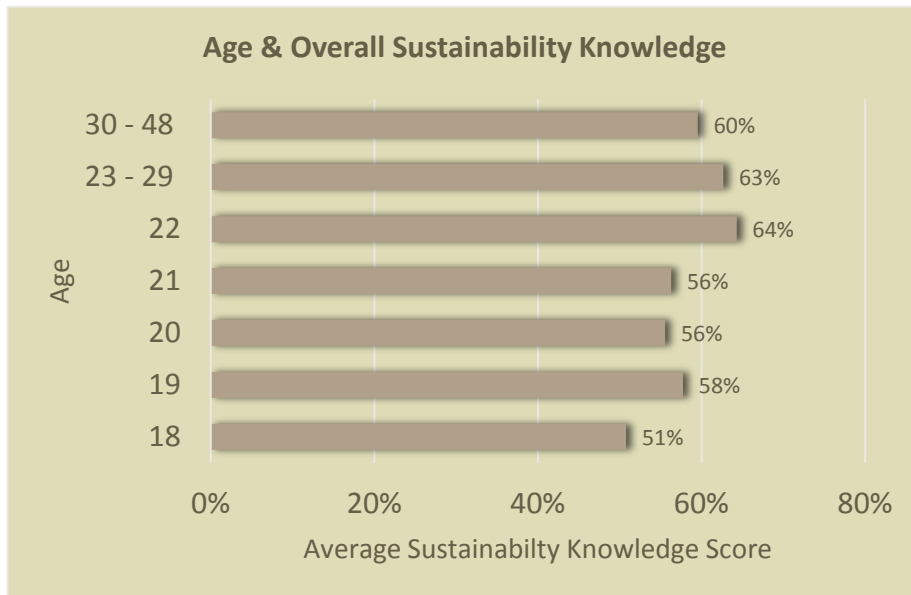


Of those who want to learn more about sustainability:

- 15% through additional courses
- 37% through campus and community organizations
- 48% through independent self-study

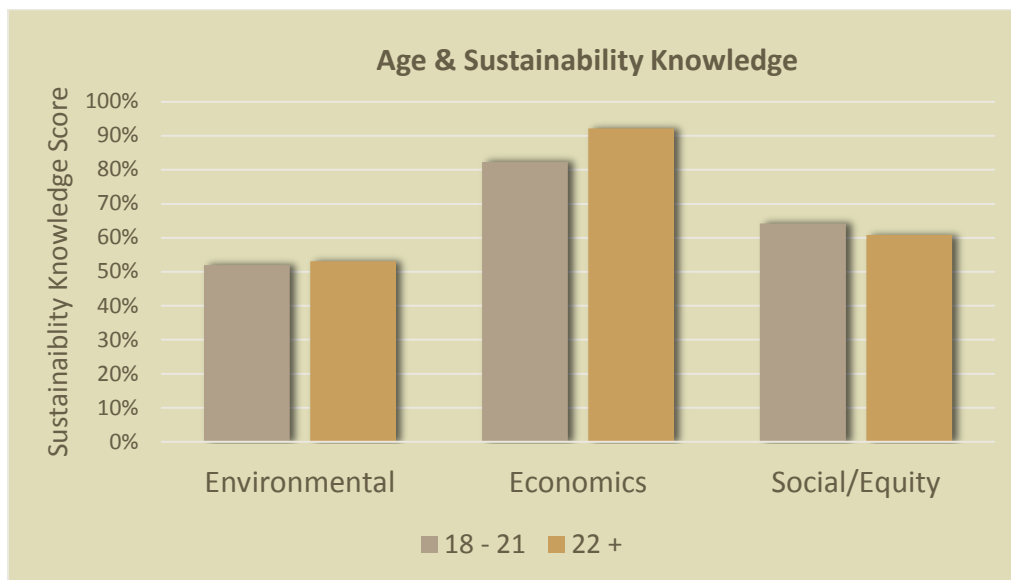
# STUDENTS' BACKGROUND AND EXPLANATORY FACTORS

## Age



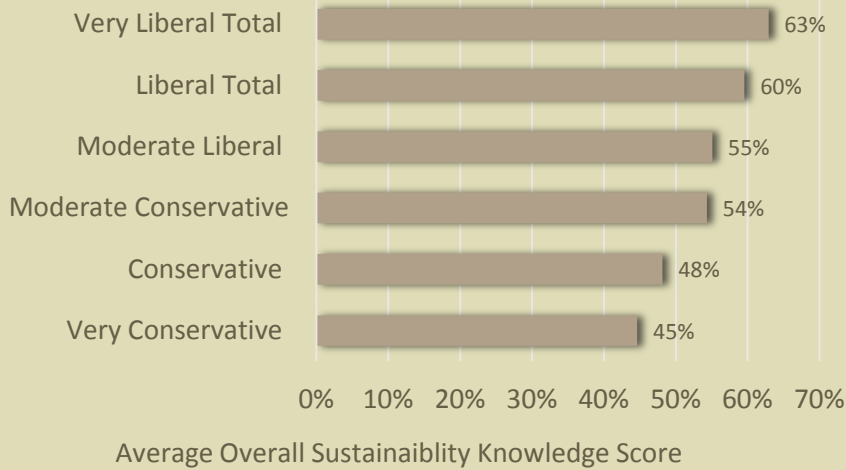
- Younger students know less about sustainability than older students

- 22+ students know more about economic sustainability, especially its economic dimensions



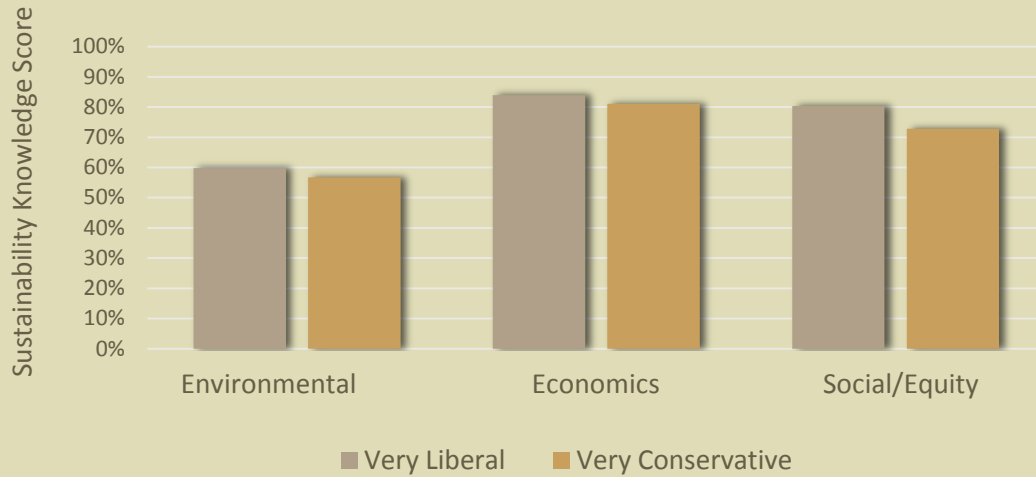
## Political Identity

**Political Identity & Overall Sustainability Knowledge**



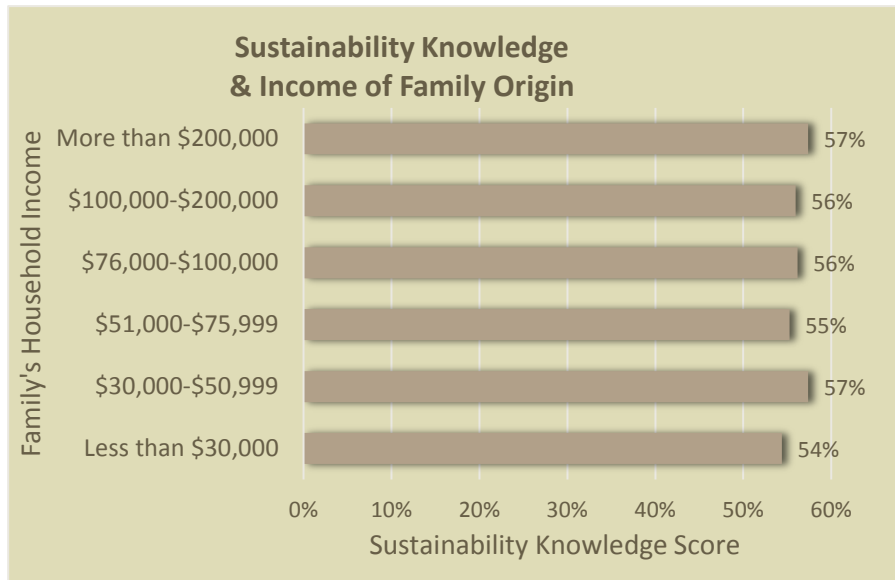
- Politically liberal students are significantly more knowledgeable about all three pillars of sustainability

**Political Identity & Sustainability Knowledge**

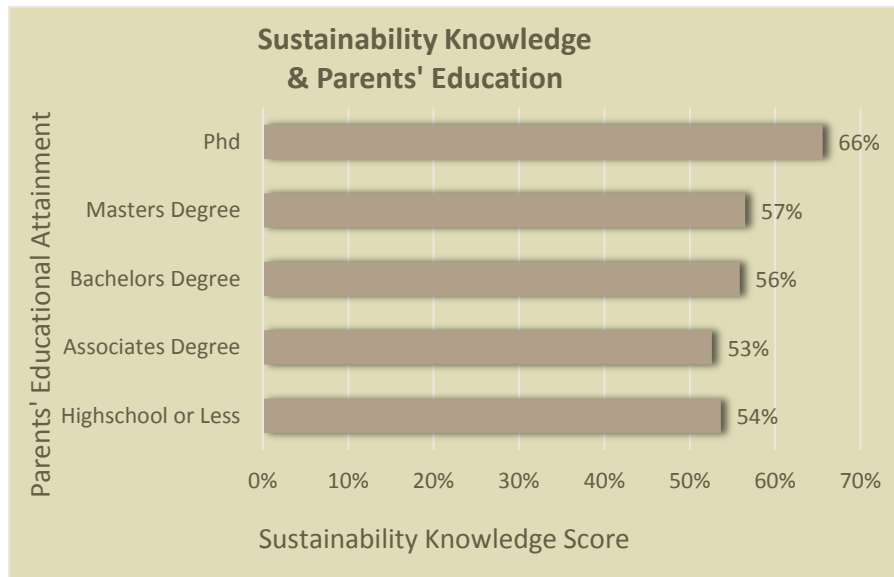


## Socioeconomic Background

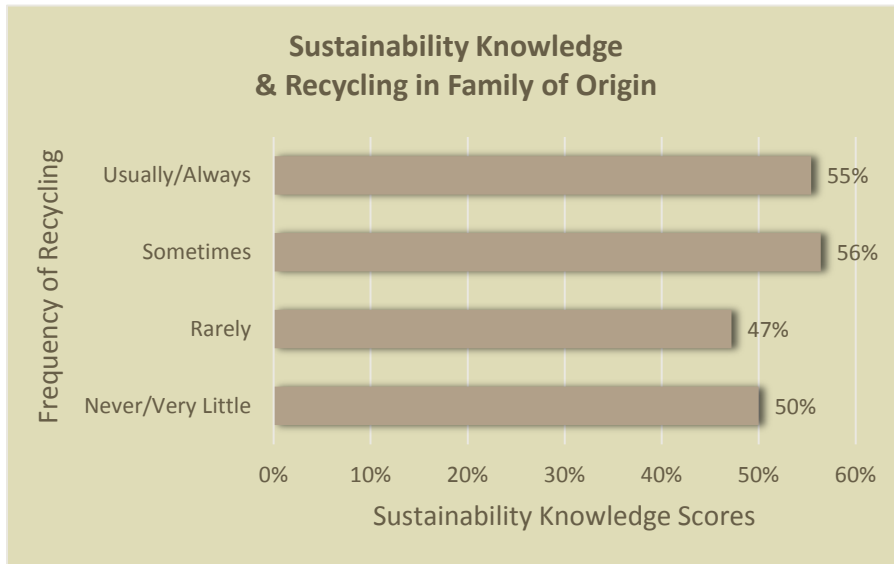
- There is no relation between sustainability knowledge and the income of students' families of origin.



- Sustainability knowledge is positively correlated with the level of a students' parental educational attainment.

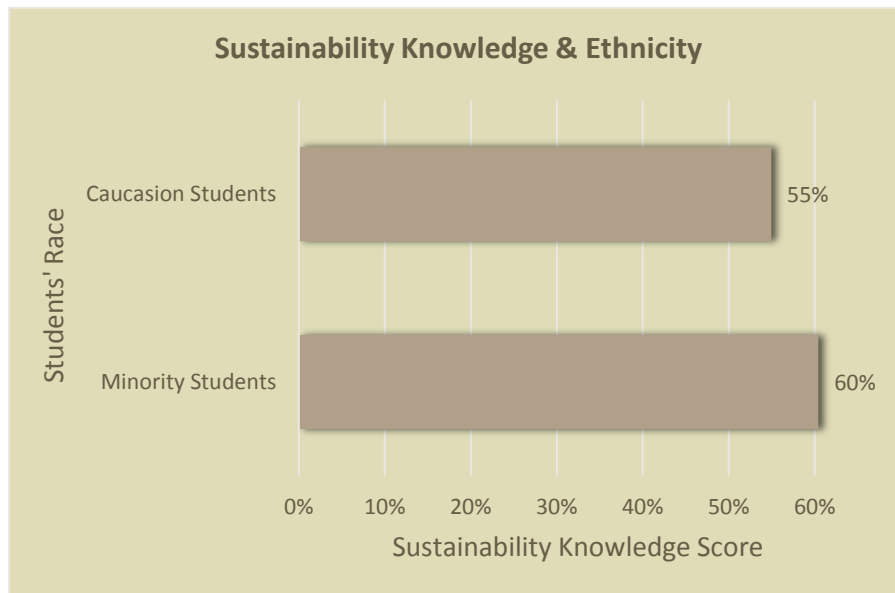


## Recycling in the Family of Origin



- Sustainability knowledge is positively correlated with recycling behaviors in the students' families of origin.

## Ethnicity



- Minority students are more knowledgeable than white students, however the difference is not statistically significant.

## Determinants of Sustainability Knowledge – regression analysis

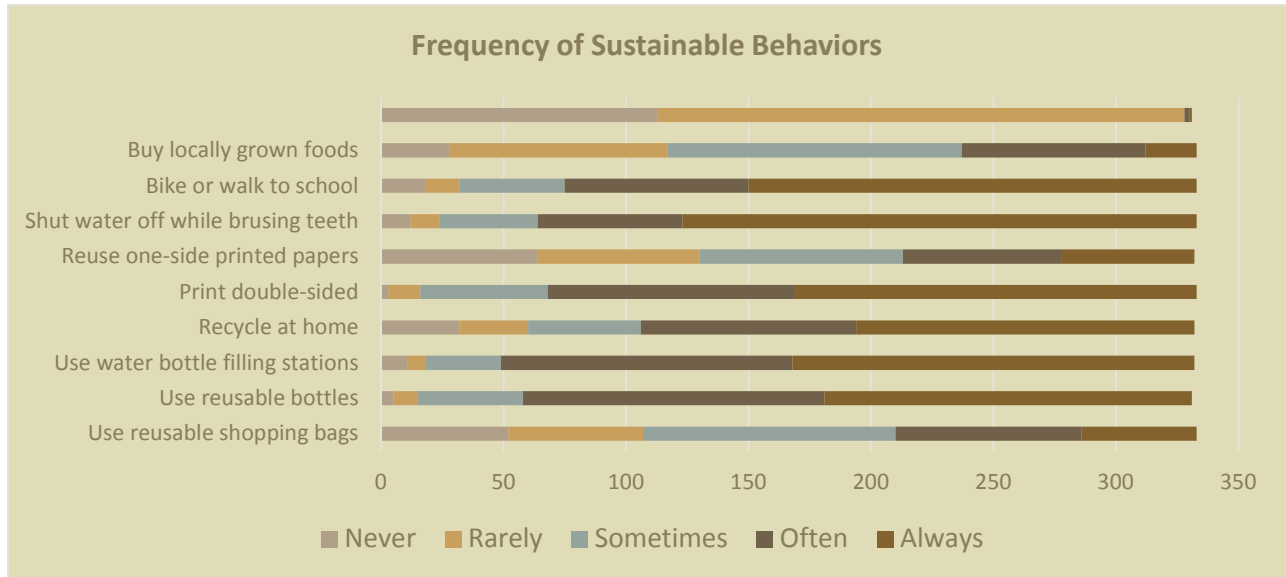
Determinants of overall and environmental sustainability knowledge scores

Factor	Overall sustainability knowledge		Environmental knowledge	
	Coefficient	P>t	Coefficient	P>t
Business major	0.398	0.554	0.485	0.316
Health-related major	0.879	0.195	1.041	0.032
Humanities and social sciences major	1.418	0.024	1.362	0.003
Science major	2.250	0.001	1.910	0.000
Year in school	-0.056	0.747	-0.076	0.543
Gender (1= female)	-0.456	0.139	-0.689	0.002
Parents' education	0.393	0.001	0.351	0.000
Number of sustainability courses	0.258	0.015	0.190	0.013
Constant	5.535	0.000	2.818	0.000
N= 256	R-square: 0.165	Adjusted R-square: 0.138	R-square: 0.215	Adjusted R-square: 0.189

- Students who are pursuing science majors (fundamental sciences, earth sciences, life sciences, engineering) and humanities/social sciences majors (education, law, arts, humanities, and social sciences) score significantly higher than undeclared majors (the reference category) for both overall knowledge and environmental knowledge. Health-related majors score higher on environmental knowledge than undeclared majors, but not overall. Business majors do not score differently from undeclared majors on any dimension of knowledge.
- The number of sustainability-related courses students take significantly increases knowledge level. However, Year in school has no significant impact on knowledge scores. This suggests that, overall, students are not acquiring sustainability knowledge throughout their studies at the University of Iowa.
- With regards to students' socio-demographics, parents' education level is positively associated with overall and environmental knowledge. Female students' score significantly lower than men on environmental knowledge questions, but this gap is not significant if we include all elements of sustainability.
- We explored, but did not identify any statistically significant determinant of economic and social/equity sustainability knowledge.

### III. SUSTAINABILITY BEHAVIORS

#### Sustainability Behaviors



**Total Behavior Score**

• Frequency of each sustainable behavior

- Never = 1
- Rarely = 2
- Sometimes = 3
- Often = 4
- Always = 5

Total score: sum of all scores/45 (max)

## In-State v. Out-of-State Students

- There is no statistically significant difference in sustainability behaviors or sustainability knowledge.

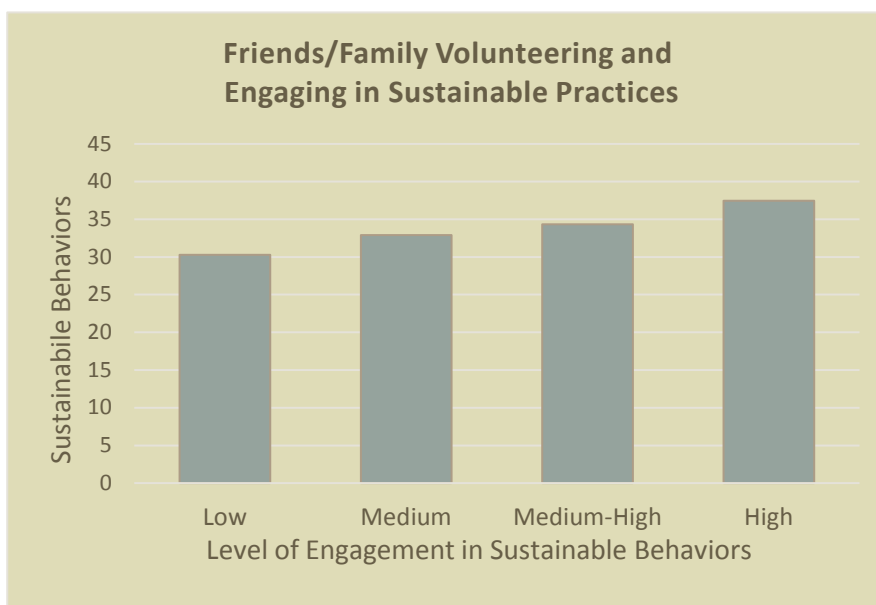
## Population of Students' Hometown

- Students from large cities do report statistically significant higher levels of sustainable behaviors, however, there is no difference in sustainability knowledge.

## Family and Friends who Volunteer



- Students with close friends and family members who volunteer consider sustainability practices more important.

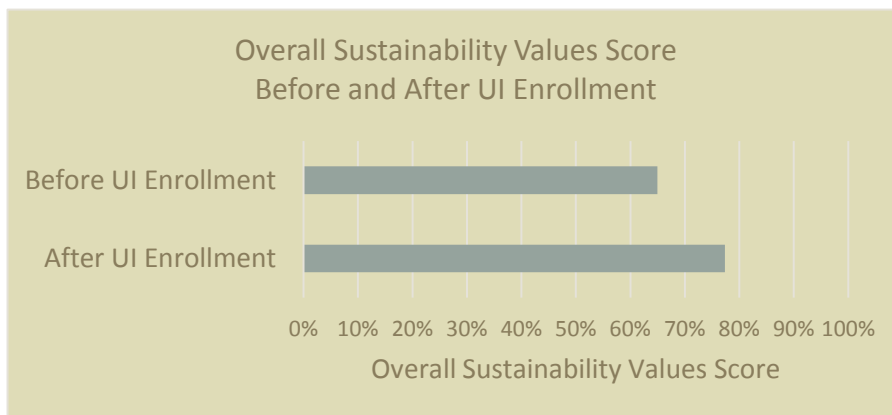
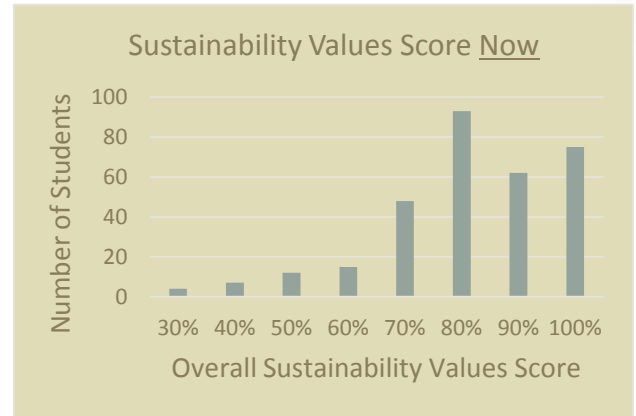
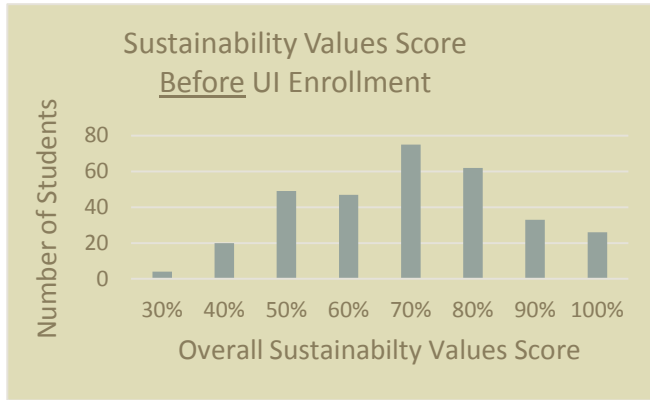


- Students whose friends and family members volunteer are more likely to engage in sustainable behaviors.



## V. CHANGES IN SUSTAINABILITY ATTITUDES WHILE AT THE UI

### Sustainability Values Scores



#### Elements:

- Environment: importance of recycling, reducing food waste, conserving water, living close to public transit
- Economy: importance of shopping for locally sourced goods, buying from businesses that engage in fair trade practices
- Equity: importance of participating in the cultural life of the community, understanding inequities in workplace/classroom, volunteering to support marginalized people/groups, participating in local politics, supporting candidates that advocate raising the minimum wage

#### Scoring system:

- Not important at all = 1
- somewhat unimportant = 2
- somewhat important = 3
- very important = 4

Total Sustainability Values Score: sum of all scores/48

- Environmental Values Score: sum of all environmental scores/16
- Economic Values Score: sum of all economic scores/8
- Equity Values Score: sum of all equity scores/20

Statistically significant factors associated with change while at the UI:

- UI coursework/ programs
- Number of sustainability related courses
- Year of enrollment
- Gender

## VI. CONCLUSIONS & SUGGESTIONS

- Knowledge of environmental sustainability limited, especially for energy and climate change impacts
- Advertise Sustainability Certificate
  - Many interested in sustainability, but 50% don't know it exists
  - Promote certificate and course options in all departments
- Many unsure / uninterested in learning more
  - Help faculty identify and highlight sustainability content and real-life implications
- Support volunteering as pathway to sustainable attitudes
- Target small-town, female, conservative students for information and education
- Many want to learn through independent study and campus organizations
- Investigate how “self-study” may be encouraged through the UI
  - Encourage teachers to implement a form of the Self-Determined Learning Model of Instruction (SDLMI)<sup>4</sup>. SDLMI promotes behavior that encourages self-directed learning:
    - Ability to act autonomously
    - Self-regulation of behavior
    - Acting in a psychologically empowered manner
    - Acting in a self-realizing manner
  - Shift from lecture based to active and collaborative teaching as well as individual learning outside of the classroom to promote confidence and self-efficacy in students.<sup>5</sup>
    - Open ended questions to provoke independent, critical analysis and dialogue

### Need for Further Investigation

- Need more knowledge questions on economics, equity, energy production and conservation
- Need more questions to identify how to support self-study as a preferred learning method

---

<sup>4</sup> Argan, M., (2000) & Wehmeyer, M., (2007). Originally focused on adolescents with mental disabilities, SDLMI is applicable across all populations to promote self-determination.

<sup>5</sup> Haskell, N. (2016). Classroom strategies to improve student self-efficacy and learning outcomes.

## References

- Argan, M., Wehmeyer, M., & Blanchard, C. (2000). Promoting transition goals and self-determination through student self-directed learning: the self-determined learning model of instruction. *Education and Training in Mental Retardation and Development Disabilities*, 35(4), 351-364. Retrieved from [http://www.jstor.org/stable/23879857?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/23879857?seq=1#page_scan_tab_contents)
- Haskell, N. (2016). Classroom strategies to improve student self-efficacy and learning outcomes. *Pearson Higher Education*. Retrieved from <http://www.pearsoned.com/education-blog/improve-self-efficacy-learning-outcomes/>
- Wehmeyer, M., Palmer, S., Garner, N., & Lawrence, M. (2007). The self-determined learning model of instruction: a teacher's guide. *Institute of Education Sciences Research Project 2007-2009*. Retrieved from <http://transitioncoalition.org/wp-content/uploads/2016/06/SDLMI-Teachers-Guide-4.pdf>

## APPENDIX

### Sustainability Education on the UI Campus

#### Questionnaire

Developed by Dr. Laurian's Analytic Methods in Planning class, Fall 2016

#### Introduction

This survey explores sustainability education on the UI campus.

It is conducted by students in the School of Urban and Regional Planning for the Office of Sustainability. Its goals are to identify strength and improvements opportunities for undergraduate education at the UI.

You are among the undergraduate students who were randomly selected to participate. The survey will take about 12 minutes of your time. Your participation is entirely voluntary. You can skip any question and stop at any time, and your responses will remain anonymous.

If you have any question, you can contact Lucie Laurian at [lucie-laurian@uiowa.edu](mailto:lucie-laurian@uiowa.edu) or Liz Christiansen at [liz-christiansen@uiowa.edu](mailto:liz-christiansen@uiowa.edu).

When you complete this survey, you will have the option to provide your email to be entered in a drawing for one brand new bike and ten \$25 gift certificates for the New Pioneer Food Coop. If you do so, we will keep your email only for the drawing, and all your answers will remain anonymous.

Thank you for participating!

## SECTION 1 of 5. GENERAL INFORMATION

Q1 Which year are you in?

- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)
- Not credit-seeking (5)
- Other: (6) \_\_\_\_\_

Q2 What best describes your major(s) or discipline(s)? (select all that apply)

- Education (2)
- Law (3)
- Medicine (1)
- Nursing (4)
- Pharmacy (8)
- Dentistry (7)
- Public Health (5)
- ROTC (6)
- Business (9)
- Arts (10)
- Humanities (e.g. literature, languages) (11)
- Social Sciences (e.g. sociology, political science) (13)
- Engineering (18)
- Fundamental Sciences (e.g. math, physics) (12)
- Earth Sciences (e.g. geology) (14)
- Life Sciences (e.g. biology) (15)
- Undecided (16)
- Other (17) \_\_\_\_\_

Q3 Are you pursuing a Sustainability Certificate?

- Yes (1)
- Not currently, but I intend to (2)
- No, I'm not interested (3)
- I don't know what it is (4)

**SECTION 2 of 5: BEFORE YOU CAME TO THE UNIVERSITY OF IOWA**  
 Please think back to your experience and mindset before you joined the U of I.

**Q4 How much was sustainability a part of your high school education?**

- Sustainability was a significant part of the curriculum for everyone (1)
- I took some elective courses that covered sustainability (2)
- My school offered courses that covered sustainability, but I didn't take them (3)
- My school offered little to no education on sustainability (4)

**Q5 When you were in high school, did your family recycle the following items?**

	Never (1)	Some of the time (2)	Most of the time (3)	Always (4)	Not sure (5)	Recycling was not available (6)
Paper (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Metal/Cans (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glass (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plastic (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q6 When did you learn the most about sustainability?**

- Before high school (1)
- During high school (2)
- During college at UI (3)
- During college at another university/college (4)
- While working/interning (5)
- I've never learned about sustainability (6)

## Q7 Before you enrolled at the University of Iowa, how important to you were these?

	Not at all important (1)	Somewhat unimportant (2)	Somewhat important (3)	Very important (4)
Recycling (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing food waste (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conserving water (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living close to public transit (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shopping for locally sourced goods (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying from businesses that engage in fair trade (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in the cultural life of the community (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding inequities in the workplace or classroom (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteering to support marginalized people or groups (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in local politics (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting political candidates that advocate raising the minimum wage (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living sustainably (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 3 of 5: Please tell us about your sustainability education at the U of I.

Q8 What do you think of sustainability education on campus?(1 star being "Needs Improvement" and 5 stars being "Exceptional")

Q9 How many classes have you taken at the UI in which sustainability was a major topic?

- 0 (1)
- 1 (2)
- 2 (3)
- 3-5 (4)
- 6-8 (5)
- 8-10 (6)
- 11+ (7)

Q10 What class taught you the most about sustainability? (indicate class title, course number or instructor)

Q11 Since enrolling at the UI, what has taught you the most about sustainability? (pick up to 2)

- Classes (1)
- Self-study (2)
- A job on campus (3)
- A job off campus (4)
- Volunteering (5)
- Extra-curricular activities on campus (6)
- Extra-curricular activities off campus (7)
- Friends (8)
- Other: (9) \_\_\_\_\_

Q12 Are you interested in learning more about sustainability?

- No (1)
- Not sure (2)
- Yes (3)

Display This Question:

If Yes:

Q12.5 If you answered "yes", how would you like to learn about sustainability?

- by taking more courses (1)
- with self-study (reading, following the media) (2)
- by participating in student or community organizations (3)



Q13 What are the 3 pillars, or elements, of the "triple bottom line" of sustainability? (pick 3)

- Economics (1)
- Education (2)
- Energy (3)
- Environment (4)
- Equity/Culture (5)

Q14 What is a "carbon footprint"?

- The pollution emitted by a factory near a body of water. (1)
- The total carbon emissions produced by an individual or group. (2)
- The carbon sequestration that trees contribute annually. (3)
- The greenhouse gases in the atmosphere. (4)

Q15 What does "LEED certified" mean?

- A city is certified for its energy-efficiency and uses LED lights. (1)
- A firm is certified as a Leader in Economic and Efficient Development. (2)
- A building is certified for its leadership in Energy and Environmental Design. (3)
- A public institution or nonprofit is certified for its Equitable and Ecological Development work. (4)

Q16 Some economists argue that electricity prices in the U.S. are too low because:

- They do not reflect the costs of pollution from generating that electricity (1)
- Too many suppliers go out of business (2)
- Electric companies have a monopoly in their service area (3)
- Consumers spend only a small part of their income on energy (4)

Q17 What is the greatest source of man-made CO<sub>2</sub> (carbon dioxide) emissions?

- Agriculture (1)
- Wood burning stoves (2)
- Manufacturing (3)
- Fossil fuel extraction and usage (4)

Q18 What is the main source of power for generating electricity in Iowa?

- Wind (1)
- Coal (2)
- Biomass (3)
- Oil (4)
- Natural Gas (5)

Q19 What is the main cause of water pollution in Iowa?

- Agricultural runoff (1)
- Urban runoff (2)
- Industrial point source pollution (3)
- Waste leakage from wastewater treatment plants (4)

Q20 What is a potential effect of current climate change trends?

- Decrease in sea level (1)
- Desertification (2)
- Increasing polar ice (3)
- Expansion of ecosystems (4)

Q21 What is the best way to support your local economy?

- Buy at a large chain store (1)
- Buy on Amazon or Ebay (2)
- Buy goods made abroad at locally-owned retailers (3)
- Buy locally-made goods (4)

Q22 Which of the following is an example of Environmental Justice in action?

- Urban citizens pass a bill to have toxic waste taken to rural communities (1)
- Government dams a river which floods Native American lands to create a hydro-power plant for a city (2)
- An indigenous community sets a quota for the amount of wood that can be taken from a protected forest near their ancestral lands. (3)
- Corporations build factories in development countries with environmental regulations are less strict. (4)

Q23 One method for addressing social equity is:

- Increasing bus fares (1)
- Adding convenience stores at gas stations (2)
- Creating affordable housing (3)
- Creating a carbon tax (4)

Q24 What climate change milestone was announced by scientists in 2016?

- 400 PMM CO<sub>2</sub> (4)
- 300 PPM O<sub>2</sub> (5)
- 200 PPM CO<sub>2</sub> (6)
- 100 PPM NO<sub>x</sub> (7)

**Q25 In the Midwest, which of the following are we experiencing?**

- More cool summers (4)
- First frost in fall occurs one week earlier (5)
- Last frost in spring occurs one week earlier (6)
- Fewer days with heavy rainfall (1.25 inches or more in one day) (8)

**Q26 What do we expect to see in the Midwest?**

- Average annual temperatures will be lower than in the past (4)
- Spring precipitation will decrease (5)
- More days with excessive daily rainfall (1.23 inches or more in one day) (6)
- None of the above (7)

SECTION 4 of 5: Now we will ask a few questions about your activities.

Q27 In general, how engaged in community volunteering are:

	Not Engaged (1)	Rarely Engaged (2)	Sometimes Engaged (3)	Very Engaged (4)
You (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your immediate family members (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your close friends (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q28 In the past year, how often did you volunteer or engage in activities that promote sustainability in any of these areas?

	Never (1)	Once (2)	A few times per year (3)	Once a month (4)	Few times per month (5)	Weekly (6)
Social Justice/Equity (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural Diversity (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support the Local Economy (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental Protection (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q29 How willing are you to participate in sustainability activities on campus, such as Eco Hawks, Biomass Fuel Project, or University of Iowa Gardeners?

- Not willing (1)
- Somewhat unwilling (2)
- Somewhat willing (3)
- Very willing (4)
- I don't know what these groups are about (5)

Q30 Overall, how sustainable do you feel your lifestyle is? (1 is NOT SUSTAINABLE and 10 is VERY SUSTAINABLE)

## Q31 How important is each of these items to you NOW?

	Not Important at all (1)	Somewhat unimportant (2)	Somewhat important (3)	Very important (4)
Recycling (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing food waste (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conserving water (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living close to public transit (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shopping for locally sourced goods (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying from businesses that engage in fair trade (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in the cultural life of your community (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding inequities in your workplace or classroom (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteering to support marginalized people or groups (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in local politics (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting political candidates that advocate raising the minimum wage (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living sustainably (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 If your attitudes about these items have changed since you started at the UI, what caused that change? (select up to 3)

- Friends (1)
- Family (2)
- Volunteering (3)
- Workplace (4)
- Social Media (5)
- News Media (6)
- University programs (7)
- University courses (8)
- No Change (10)
- Other (9) \_\_\_\_\_

Q33 In practice, how often do you do the following?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
Use reusable shopping bags (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use reusable bottles (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use water bottle filling stations (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recycle at home (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Print double-sided (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reuse one-side printed papers (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shut water off while brushing teeth (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bike or walk to school (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buy locally grown foods (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 5 of 5: Before we conclude, a few demographic questions:

Q34 What is your gender?

- Male (1)
- Female (2)
- Gender-fluid or queer (3)
- Transgender (4)
- Other (5)

Q35 How old are you?

Q36 Which best represents your race/ethnicity? (select all that apply)

- Caucasian/White (1)
- African American/Black (2)
- Hispanic/Latino(a) (3)
- Asian (4)
- Native American (5)
- Other (6)

Q37 Which state/county/region are you from?

- Iowa (1)
- United State (out-of-state) (2)
- International (3)

Q38 What is the population of your hometown?

- 0-5,000 (8)
- 5-10,000 (1)
- 10-50,000 (2)
- 50-100,000 (3)
- 100-500,000 (4)
- 500,000-1 million (5)
- 1-5 million (6)
- 5 million or more (7)

Q39 In general, would you consider your political views to be:(0 being Very Conservative and 5 being Very Liberal)



Q40 What is the highest level of your parents' education?

- Some high school (1)
- High school (2)
- Associates Degree (3)
- Bachelors Degree (4)
- Masters Degree (5)
- PhD (6)
- I don't know (7)

Q41 Approximately, what was your family's household income prior to you attending the University of Iowa?

- Below \$30,000 (1)
- \$30-50,999 (2)
- \$51,000-75,999 (3)
- \$76,000-100,000 (4)
- \$100-200,000 (5)
- Above \$200,000 (6)
- Don't Know (7)
- Prefer not to answer (8)

Thank you for your time! If you would like to be entered in a drawing for one new bike and ten \$25 gift certificates for the New Pioneer Food Co-op, please enter your e-mail address below. Otherwise, hit the "next" button to submit your responses.