

## Abstract

The United Nations created the Sustainable Development Goals (SDGs) in 2015 to include 17 goals and 169 targets that foster ongoing environmental, social, and global economic development and aims to accomplish each goal by 2030. There has been considerable enthusiasm in various sectors since the SDGs have been in place; however, there is still a significant amount of work to be done to engage experts and young scholars (the future experts) in the SDGs. According to Salvia, Filho, Brandli, & Griebeler, 2019, researchers at institutions of higher learning from around the globe found a relation between locality and research, though questions remain concerning the role vocation and locality play in determining one's predilection for a given SDG. This project analyzes individual rankings of the SDGs by comparing responses from college students interested in environmental sciences and academic and field professionals engaged in ecological work or research.

## Objectives and Hypotheses

- The objective of this study is to identify whether people gravitate towards a particular SDG and whether their vocation and/or location has influenced which SDG(s) they identify with
- Hypothesis: Location and vocational interest is a factor when a person considers what is the most important SDG for achieving sustainable development

## Methods

- Sixteen question survey accompanied by 16 minute presentation
- Presentation given to provide basic background information on sustainable development and the SDGs
- The survey consisted of three parts: (I) previous knowledge of sustainable development and the SDGs, (II) ranking of the SDGs and sustainable development pillars, and (III) proximity to natural features i.e. bodies of water, forested areas, and state and national parks as well as nature reserves
- Part I of the survey was taken at the beginning of the presentation; Parts II and III were taken at the end of the survey
- Presented to six groups – one in California, five in Ohio; later converted to digital format to collect more data via YouTube and a Google Form (this is considered the 7<sup>th</sup> group)

## Acknowledgements

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## SUSTAINABLE DEVELOPMENT GOALS



## Order of Importance of the Pillars of Sustainability

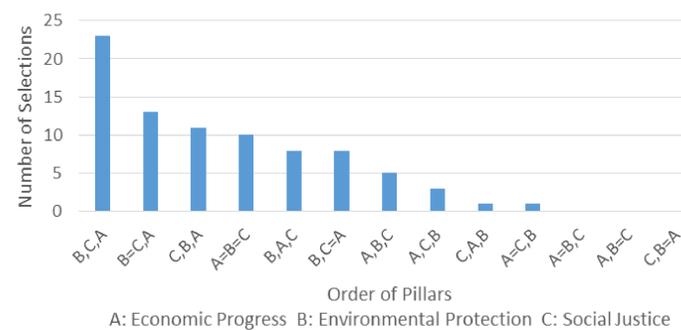


Figure 2: Participants from Southern California and Ohio ranked the pillars of sustainability from most to least important. They could rank them as "all equal" seen here as A=B=C. A represents Economic Progress, B represents Environmental Protection, and C represents Social Justice.

Locality	SDG		
	1st	2nd	3rd
CA	13	6,10,ALL	17
OH	13	6	4,12
Both	13	6	4,12

Table 2.1: Participants were asked to rank their top five SDGs. They could mark "All are equally important" represented here by "ALL". The top three most selected SDGs are shown.

Locality	SDG		
	1st	2nd	3rd
CA	6	16,17	5,13,NA
OH	13	4	12
Both	13	4	12

Table 2.2: Participants were asked to select the most critical SDG to sustainable development. They could say "All are equally important" represented by the word "ALL". The top three most selected SDGs are shown here.

## Results

- Environmental and social goals are favored the most
  - SDG 13: Climate Action is selected the most for being the most critical to sustainable development
  - The next top SDGs are SDGs 4: Quality Education, 6: Clean Water and Sanitation, and 12: Responsible Consumption and Production are among the top SDGs selected for being most critical to sustainable development
- There is no difference between California and Ohio responses, granted the California sample is small
- Economic Progress was favored as third most important among the three sustainable development pillars behind Environmental Protection and Social Justice respectively

## Discussion

- The environmental pillar and SDGs are deemed most critical to sustainable development followed by social and economic pillars and SDGs
- Students and practitioners value the same SDGs
- Regardless of distance to natural features, SDG 13 comes out as most important both in ranking the top five most important goals to sustainable development as well as the top most important goal to sustainable development. SDGs 4, 6, and 12 are still present.

Distance	Feature	Rank top 5 SDGs			Top SDG		
		1st	2nd	3rd	1st	2nd	3rd
<5 miles	Water	13	6	4	13	6	4,16
	Forest	13	6	12	13	4	16
	Parks	13	6,12	7	4	6,12	3,13,16
		13	6	?	13	6	16
5-15 miles	Water	6	4, 10,12	7,13	13	4	12
	Forest	6	13	14	13	4,6,12	1,9
	Parks	13	6	4	13	12	4,16
		6	?	?	13	4,12	?
both		13	6	4,7	13	4,6,12	16

Table 3: Participants ranked their top five SDGs and then selected the top most important SDG to sustainable development. Each time they were able to select "All are equally important". This is based on how close people live to bodies of water such as rivers, lakes, or oceans; large forested areas; and national or state parks, or nature reserves. Four distances were available (a) very close [<5 miles], (b) relatively close [5-15 miles], (c) some distance away [15-25 miles away], and (d) far away [25+ miles].

Age	SDG																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	ALL	NA
18-24	1	0	1	3	1	2	1	0	0	0	0	5	5	1	0	3	2	0	0
25+	1	0	3	8	0	6	1	0	3	3	1	4	15	1	1	5	3	1	2

Table 4: The same top SDGs are found between students (18-24 years of age with less than or equal to six years of completed college) and practitioners (age 25+) as was found in Ohio and California.

## Applications & Future Research

- My findings will be potentially useful in determining how ranking preference of SDGs aligns with vocational interest, professional work, and locality
- Future research can examine which SDGs specific communities are actively engaging with via projects and other initiatives
- This leads me to question how people define the term "sustainability" since there is a high prevalence of socially focused SDGs
- More research can be done to see if SDG 13 holds the same importance to others not in the environmental and ecological field