

Measuring the Support for Climate Change Researchers at the University of

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Introduction:

Climate change has been recognized globally as one of the leading issues of our generation. In order for the United States to make an appropriate response to climate change there is a need to facilitate climate change research in institutions of higher learning. Making climate change research available to undergraduate students has the potential for positive results for the issue of climate change and the undergraduates who choose to participate in research (Seymor et. al. 2004). As an institution of higher learning and the resources at our disposal, the University of Richmond should be at the forefront of climate change research.

University of Richmond Currently:

As a top liberal arts college, the University of Richmond has a unique opportunity to affect positive change in education and research on climate change. Currently, Richmond only offers one class specifically about climate change. The Global Impacts of Climate Change (ENVR 322) is a course offered in the School of Continuing Studies. It is only worth .86 of a unit and is not consistently offered semester to semester. Faculty research on climate change is also lacking. On the University's website, no faculty members list climate change as one of their areas of research. Although their research may help with climate change, there is no specific mention of climate change research.

Benefits of a Climate Change Researcher:

Education is a determining factor in adaptive capacity to cope with climate change (O'Neill and Oppenheimer 2002). The direct benefits are providing knowledge on climate change risks and coping strategies for the future and improvements in adaptation technology (Fankhauser 1999). Students who take part in climate change courses, research, or who engage with faculty are profited by the knowledge of a global topic. This knowledge can benefit the student in pursuing further education and a career. The surrounding community also benefits from any research that provides important information or innovation. The flow of information that higher education offers can be used to improve the lives of students, community members, and faculty alike.

Methods:

In order to measure the University of Richmond community's view on climate change faculty and research opportunities this study used a survey of Richmond students. Research of the top 25 liberal arts colleges course offerings were used to formulate survey questions. A total of 15 questions were sent to 1,591 students.

Leading Liberal Arts Colleges:

In an effort to gage the University of Richmond's placement among its' competitors, this study analyzed the number of climate change classes offered by the top 28 liberal arts colleges. The number of classes offered by these schools ranges from 0-6, with the University of Richmond offering 1 course (Figure 1). If the University seeks to maintain competitiveness and be at the forefront of climate change classes, these findings suggest that more courses need to be offered. The other top leading liberal arts colleges offer classes spanning the societal impacts of climate change, foreign policy, and climate science and geology.

Results:

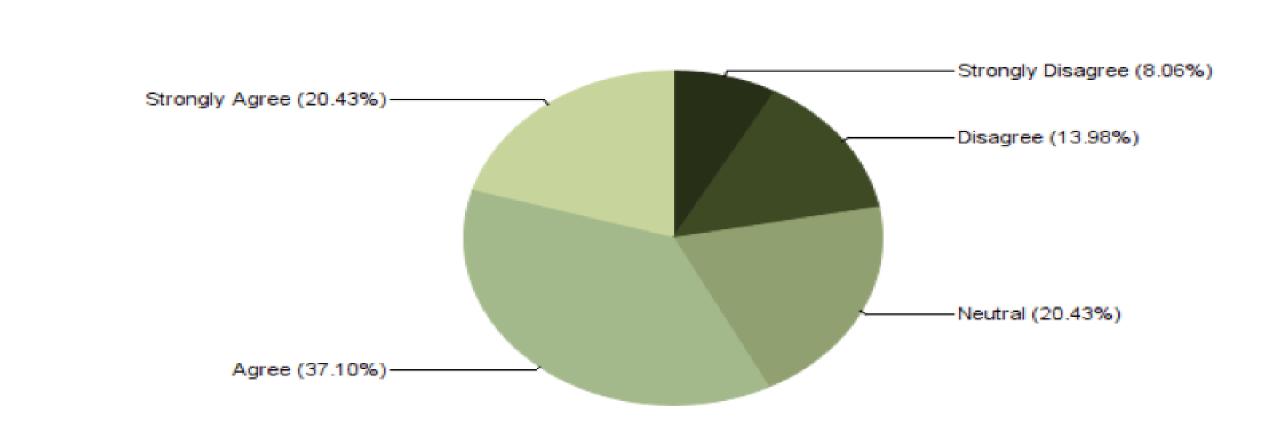


Fig. 2. Results of 186 responses for question 8: I would be interested in taking a class on climate change and society.

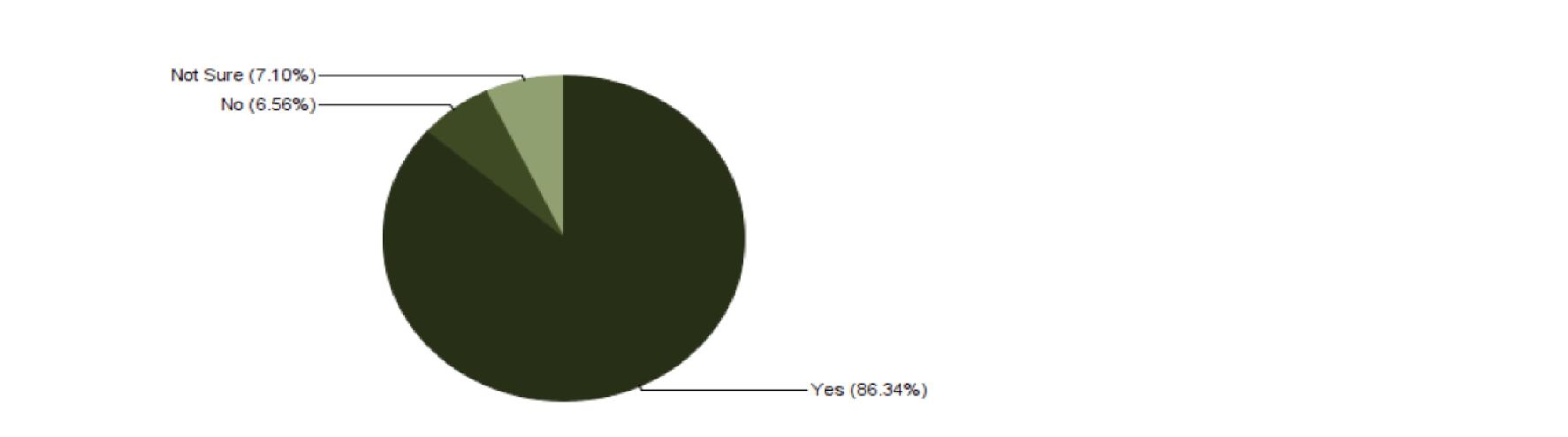


Fig. 3. Results of 183 responses for question 10: Even if you are not interested in taking a class on climate change, do you think the University should offer a class on this topic?

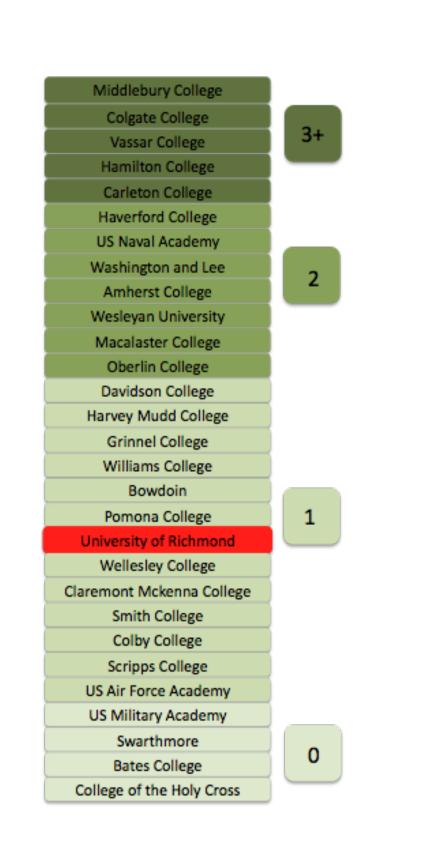


Fig 1. How Richmond compares with other top 25 liberal arts schools with reguards to climate change courses offered.

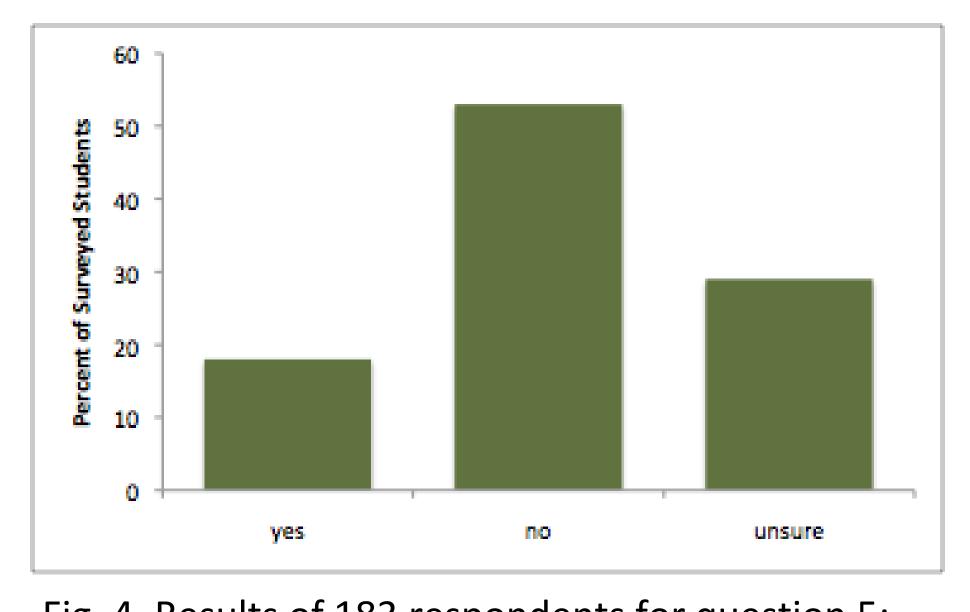


Fig. 4. Results of 183 respondents for question 5: Are classes about climate change being offered in your major?

Discussion:

The results of the survey support that the University of Richmond should offer more climate change classes. Figure 1 shows that a course specifically focused on climate change and its relationship with society. This suggests that the humanistic effects of climate change may draw more interest from students than the environmental effects. The awareness and interest in climate change courses may vary between participants interests and major-specific courses. Business majors had the highest number of participants compiling 27% of total responses. The greatest participation from a science major was biology gathering 9% of total responses. Figure 2 suggests that the student body strongly supports the University of Richmond offering climate change courses, regardless of personal interests. Educating students about climate change is an important tool for spreading awareness. Survey results suggest that minors, concentrations, and research opportunities centered around climate change may not draw enough interest from students. In order to gain interest in these climate change options, several classes need to be offered in various majors. The possibilities for minors, concentrations, and research will follow once people express more interest in committing more time to climate change studies. There are a number of professors at the University of Richmond currently offering classes that have some focus on climate change. The resources for climate change courses, faculty, and research are available at the University of Richmond. Climate change is a topic of increased concern and offers an expanding market for research opportunities. The surrounding community will also benefit from this research as they acquire knowledge about effects and adaptation strategies The University of Richmond has the opportunity to become a critical leader in the global struggle with climate change.

Recomendations:

The University should:

- Hire at least 3 new faculty members with climate change research focus.
- Faculty hires should be spread across colleges within the University.
 Special consideration should be given for the Robins School of Business.
- Increased course offerings in the interdisciplinary nature of climate change.
- Climate change research should be spread across colleges and disciplines.
- Hired faculty should be able to work with a variety of other disciplines in an effort to utilize all of the University's resources.
- Incorporation of climate change implications in courses currently offered but outside of the natural sciences

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Works Cited

Appendix A, contains climate change course data for top 25 liberal arts colleges. Email <u>brianna.miller@richmond.edu</u>, <u>adam.forrer@richmond.edu</u>, <u>hunterr.payeur@richmond.edu</u> for full Appendix A.

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O'Neill, B. C., and M. Oppenheimer. 2002. Dangerous Climate Impacts and the Kyoto Protocol. Science 296:1971-1972 Seymour, E., Hunter, A.-B., Laursen, S. L. and DeAntoni, T. (2004), Establishing the benefits of research experiences for undergraduates in the sciences: First findings from a three-year study. Sci. Ed., 88: 493–534