



Introduction

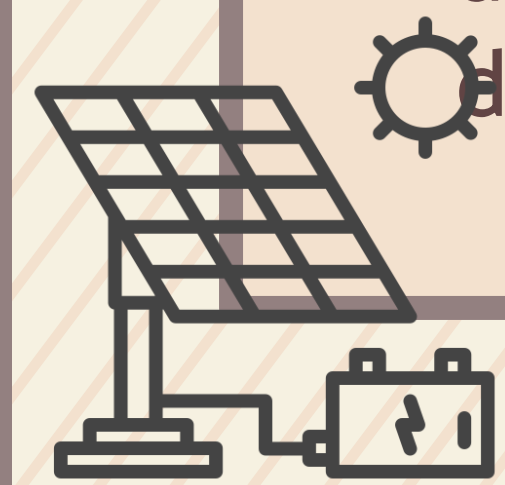
Historically, students have always been at the frontier of paramount societal changes. In 2018, student and climate activist, Greta Thunberg, 15, began a school strike to call attention to climate change. In the week leading up to the Swedish general election following heat waves and wildfires in Sweden. She sat outside of the Swedish Parliament demanding action against the impending climate crisis. While we're not sitting outside of parliament, we're aiming to research how students in other campuses are combating high CO2 emissions. In previous Brooklyn College STEAM projects, our campus has taken to researching methods such as reducing red meat consumption and using Honey Bees as an indicator of rising CO2 levels.

Objectives

- > Examine decarbonization efforts by students on other university campuses (public and private)
- > Analyze how students are leveraging their collective body to bring decarbonization efforts to their campus
- > Provide information to the local Brooklyn College and Macaulay communities on efforts they can make to decrease their carbon footprints

Methods

- > To examine decarbonization efforts made by campuses and their respective student bodies, we did a search for student-involved decarbonization efforts
- > We analyzed the GHG emissions of campuses by logging data from the Sustainability Tracking, Assessment & Rating System (STARS) data on GHG emissions and student population of universities
- > This data was used to create charts comparing the tons of CO2 output for every full time student. This was compared with the number data to correlate a decrease in GHG emissions with the rise of student decarbonization efforts
- > The data was compared to Brooklyn College STAR and college provided data to identify sources of decarbonization that can be student influenced.



Results



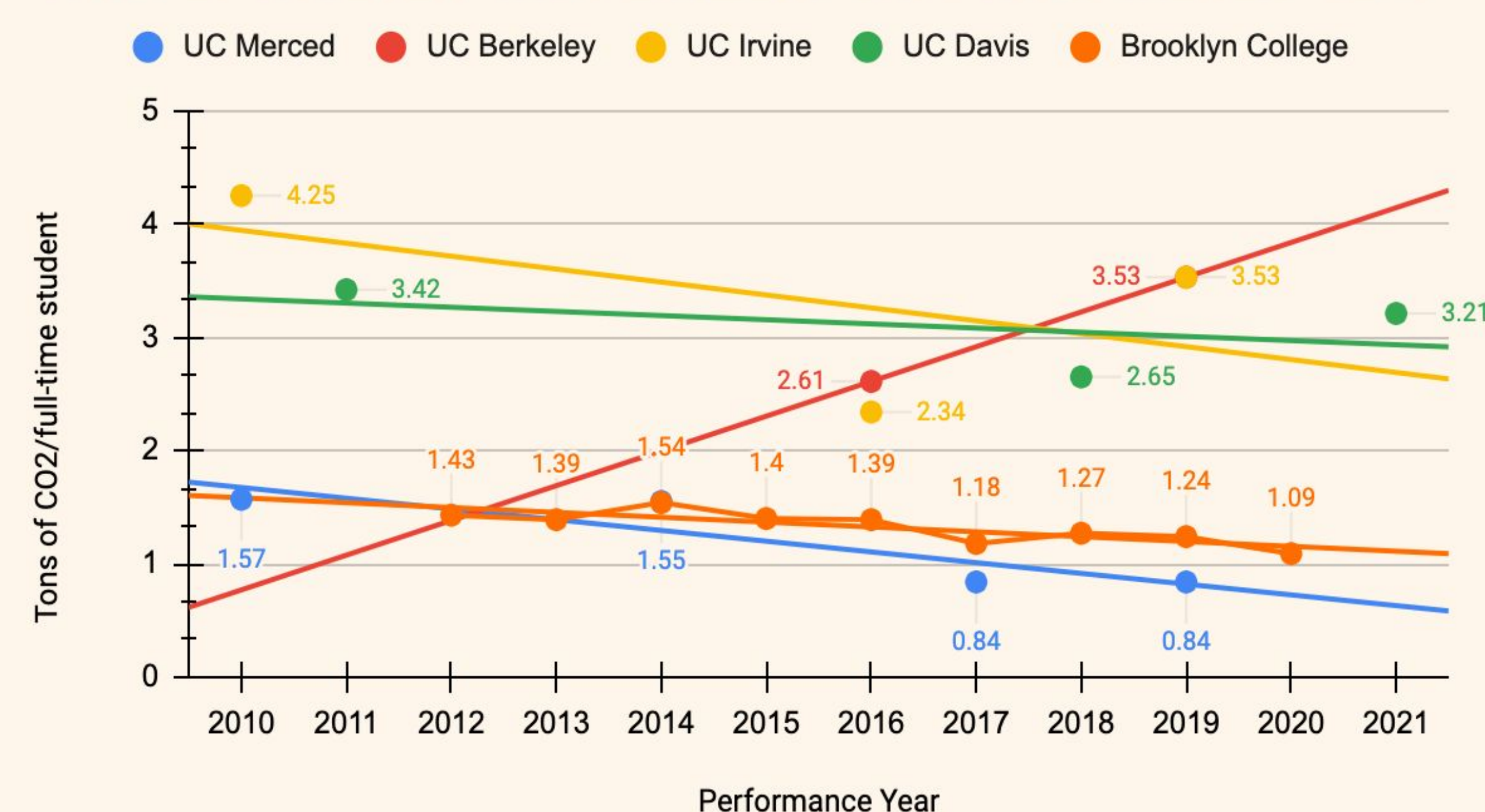
University of California Davis

- > The Campus Center for the Environment serves as a student-led and student-funded environmental advocacy organization within the Associated Students of the University of California, Davis (ASUCD). Their primary goal is to foster student engagement in promoting sustainability on campus. Through workshops, educational initiatives, and student-led projects, the CCE actively promotes students to take charge to better the environment.
- > Additionally, CCE tries facilitate collaboration between various student groups focused on environmental and sustainability issues, as well as relevant departments within the university.
- > The ASUCD Garden is a 5-acre organic farmland in Davis, maintained by a collaborative group of gardeners. Their diverse group includes students, faculty, staff, alumni, families, friends, and visitors from around the world.
- > Project Compost, led and funded by students, promotes composting through practical measures and education. Their composting operation, "The Cyclops," collects one ton of organic waste weekly from on-campus facilities. This waste is added to their compost pile at the student farm, furthering their mission to increase composting practices.

University of California merced

- > UC Merced currently has 20 active student groups working towards sustainability. Their sustainability council, ASUCM, convinced their university boards to install hydration systems and in 2015 started an annual EcoFest wherein first-year students would be given reusable bottles and educated on the influence they could have by utilizing these bottles. Additionally, the UC system of schools has consistently ranked gold (2nd greenest) by STARS and of the 12 currently platinum (greenest) rated universities, three are in the UC system.

Tons of CO2/full-time student vs. Performance Year



When comparing the self-reported university data between the greenest UC universities and our home campus, it's evident that UC schools, even with larger student body, are able to reduce their carbon output at a faster rate. When researching, we noticed that many of the UC schools not only had more active student groups and log more data on their efforts. Initially, it seems that UC Berkeley has increased Tons of CO2/full-time student emission. And, it does. However, UC Berkeley purchases significant amounts of 'carbon credits' putting money towards carbon sequestration and has heavily student involved faculty board to direct funding towards green projects.

UC System and UC Berkeley

Every April, the UC system has a competition involving its 10 campuses to determine which location could make the greatest strides in reducing its carbon footprint. Open to faculty, staff, and students, the challenge encouraged participants to take sustainability pledges addressing areas such as transportation, food, waste, purchasing, water, and energy. Points were awarded for their eco-friendly efforts, contributing to the broader goal of achieving carbon neutrality by 2025. Collectively, Cool Campus Challenge participants took more than 190,000 actions resulting in over 21,650,000 pounds of carbon dioxide saved. From the 2019 Cool Campus Challenge, UC was able to engage over 22,000 participants making up 7.6% of the entire UC population. Over 200,000 actions were taken and a third of all participants were students. From reported actions, over 10,220 metric tons of CO2 were reduced.

The winner of the 2019 event was UC Berkeley which engaged 7.5% (4,215 students) through various student campaigns to promote the competition. This was equivalent to a reduction of 2,026 metric tons of CO2 emissions

What we can do

- > Join or Start Environmental Groups:
 - ◆ Participate in or establish environmental organizations and clubs on campus.
 - ◆ Collaborate with like-minded students to organize events, workshops, and campaigns focused on climate action.
- > Educate and Raise Awareness:
 - ◆ Host seminars, lectures, or panel discussions on campus to educate students and the community about climate change, its impacts, and solutions.
 - ◆ Utilize social media and other platforms to share information and raise awareness about sustainable practices.
- > Advocate for Campus Sustainability:
 - ◆ Advocate for the adoption of sustainable practices on campus, such as renewable energy sources, waste reduction, and eco-friendly infrastructure.
 - ◆ Push for the inclusion of climate change and sustainability topics in academic curricula.
- > Participate in Climate Strikes and Events:
 - ◆ Join global climate strikes or organize local events to demonstrate solidarity and demand urgent climate action.
 - ◆ Use these events as opportunities to engage with the broader community and policymakers.

References:

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