

The Keystone Project: Carbon Footprint: Air Travel at the University of Washington

A Keystone team of graduate students, led by the UW Sustainability Office, conducted research into the UW's air travel in order to gauge how much air travel contributed to the university's overall greenhouse gas emissions. The UW's Climate Action Plan (CAP) has set a goal for UW to be climate neutral by 2050 and professional travel accounts for approximately 11% of the university's total emissions. The Keystone project had three goals:

- To provide better accounting of UW air travel through reimbursement data (UW doesn't have a central travel database with tracked mileage).
- To research travel attitudes of faculty and staff through surveys and interviews.
- To recommend steps to achieve future emissions reductions set out by the CAP.

By analyzing the reimbursement data, the Keystone team concluded that in 2014, UW had 84,075 flights which consisted of 136 million miles and emissions of 23,811 MTCDE (metric tons of carbon dioxide equivalent). The surveys and interviews allowed the keystone team to research the attitudes and behaviors of faculty and staff regarding their own air travel. Although there were numerous questions asked by the survey and interviews, particular results showed:

- Time is the most important factor when booking a flight
- There is a wide variety of how staff and faculty book their travel
- Many faculty and staff do want to travel less
- Most faculty and staff would be open to videoconferencing as an alternative to flying
- Carbon offsets are not offered to most staff and faculty when booking a flight

Recommendations by the Keystone Team

After analyzing the data of UW professional travel and conducting surveys and interviews of faculty and staff, the Keystone team made recommendations about how to improve UW travel and better account for travel emissions in order to make progress towards the university's greenhouse gas reduction goals.

1. Universal booking system
 - A universal booking system would make tracking both UW's air travel and resulting emissions more efficient and accurate.
2. Ground transportation alternatives
 - The UW can encourage ground transportation, including driving, trains, and taking the bus for regional travel as ground transportation is more sustainable than flying. The survey showed that most would be open to using ground transportation for trips that are up to 300 miles.
3. Videoconferencing
 - The accessibility, cost-effectiveness, and sustainability of videoconferencing can make it a viable alternative to air travel. At least half of faculty and staff reported that they would be likely to use videoconferencing facilities, especially for trips when collaboration with colleagues is less essential.
4. Carbon offsets

- Making the purchase of carbon offsets by staff and faculty when they book a flight simpler and more legitimate can be a way to reduce emissions in the short-term while the university continues to work to lower its overall emissions.

What's Happening Now

The UW Sustainability Office and Travel Office are working together to making booking travel on behalf of the UW a smoother process. This will also support the efforts being made to reduce air travel emissions in order to continue progressing towards the CAP goals.

The UW Travel Office website should be a go-to resource for faculty and staff when booking travel. They will conduct user-testing on the website in order to know what aspects of the website are the most important, how the website can be made more efficient and easier to use, and what else the website needs. A major component of the Travel Office website is accessing the Christopherson Air Portal, a universal booking system for UW professional travel. Christopherson not only makes booking travel a smoother process for faculty and staff, it will also improve the university's ability to track professional travel and subsequent emissions.

Increasing communications about carbon offsets, potentially through the Travel Office website, can help spread awareness about what carbon offsets are, the viability and legitimacy of carbon offsets, and how UW faculty and staff can purchase them when booking air travel. UW Sustainability is looking into options for purchasing carbon offsets.

UW Sustainability is also working to increase knowledge and awareness about videoconferencing facilities on campus as videoconferencing is a viable alternative to air travel in many cases. Research on videoconferencing facilities can show what facilities exist and whether or not videoconferencing is a much more cost-effective alternative to air travel.

Your Participation

If you would like to be involved in the user-testing of the UW Travel Office website, you have used Christopherson yourself, or you have any other input for our team, we would love to hear from you. Please contact us at smassis2@uw.edu.