

How Impactful is your Travel: An Assessment

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As an environmentally conscious campus, Ithaca College (IC) is making efforts towards its goal of becoming a carbon neutral campus by 2050. So, far there have been four schools in the United States who have already achieved a carbon-neutral status and others are on their way to reaching this goal by 2020. IC has been a member of Second Nature since 2007, where they have established a “carbon commitment” to reach climate neutrality (Presidents Climate Commitment Committee [PCCC], 2009).

IC measures carbon emission through three scopes: scope 1 – direct green house gas (GHG) emissions (heating systems), scope 2 – indirect GHG emissions (from electricity), and scope 3 – other indirect GHG emissions (commuting). In 2007 assessment, 26% of greenhouse gas emissions came from scope 3 and within that 26%, 15% was from faculty and staff commute, 7% air travel, 2% student commute and 2% solid waste (PCCC, 2009). Transportation is also the most dominant contributor to the United State’s carbon footprint, making up 27% of GHGs (Inventory of U.S. Greenhouse Gas Emissions and Sinks, 2017). If one driver per household switched to taking public transportation for a daily commute of about 10 miles each way, they would save 4,637 pounds of carbon dioxide per household per year. This is equivalent to an 8.1% reduction in the annual carbon footprint of an average American household (Hodges, 2010).

Greg Lischke, the Director of the Office of Energy Management and Sustainability at IC presented IC’s Climate Action Plan and the efforts IC has made thus far to reach the goal of becoming carbon neutral by 2050. The office was missing key information on faculty and staff transportation. By obtaining baseline data on IC’s travel, efforts can be directed to decrease the carbon footprint. Therefore, the main purpose of this study was to focus on scope three carbon emission and address: faculty and staff commuting. The primary objective was to measure knowledge, attitude, and behavior of IC employees on carbon emissions and climate change related issues.

We used a cross sectional research design. The participants, faculty and staff (employees) of IC, were invited to fill out a 21-item survey via Qualtrics software and an intercom alert during the fall semester of 2017. The survey was developed to measure the awareness, perception, and travel behaviors, using both qualitative and quantitative data. The Office of Energy Management and Sustainability will be able to use this data as a baseline measurement to initiate campus wide intervention to become carbon neutral campus by 2050.

A total of 509 employees completed the survey. The results revealed that overall majority of IC employees are aware of what carbon emission and climate change mean, and also concerned about these topics as well. However, 87.5% of IC employees use vehicles operated by gas including minivans, cars and trucks. This means the majority of our campus has an unsustainable way of traveling in general. Approximately 30% of IC employees contribute a minimum of 9 pounds of carbon each day through their vehicle travel and 10% of employees have traveled over 10,000 air miles contributing over half a million pounds of CO₂ (266 tons). Only about 6% employees responded that they car pool “all the time” or “most of the time”.

The last question of our survey, “What suggestion/comments you have regarding the carbon emission due to transportation and climate change in general?” allowed the participants an opportunity to express their opinions about public transportation and sustainable transportation. The 106 comments were broken into eight reoccurring themes and most

respondents had suggestions and comments about public transportation and sustainable transportation. The comments revealed many barriers to why IC employees had a difficult time traveling to and from IC sustainably.

Based on our results, we can infer that not all IC employees have the resources to travel sustainably. The results of this study provide IC with information to the barriers that could possibly keep us from being a carbon neutral campus. The information gathered through this study is the first step in improving travel sustainably among IC employees. We hope to further address these barriers IC employees face and create solutions to overcome them.

References

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