REDUCING THE CLIMATE IMPACT OF PROFESSIONAL AIR TRAVEL: LANDING ALTERNATIVES FOR UNIVERSITY FACULTY & STAFF

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Host organization: UW Sustainability Office
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Current altitude of air travel at UW

Air travel makes up at least **11%** of UW’s carbon footprint.

In 2014:
- **84,075** trips
- **136 million** miles
- **23,811** metric tons of CO₂

= Amount absorbed by over **22,000** acres of forest a year
1. Carbon emissions contribute to climate change

2. Faculty and staff air travel continues to increase
1. Are there alternatives within travel communications systems that may reduce unsustainable professional air travel?
2. What are the challenges to their success and implementation?
<table>
<thead>
<tr>
<th>Methods: UW Sustainability internship</th>
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<tbody>
<tr>
<td>Presented awareness to professional parties</td>
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<tr>
<td>Created a communications plan</td>
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<tr>
<td>Researched alternatives to air travel</td>
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<td>Reviewed literature on challenges to alternatives</td>
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Methods: Presentations

Presentation to the UW Travel Office
Information Meeting on August 25th, 2016
Methods: Communications plan

A quarterly spreadsheet that plans:

- Delivery date
- Media stream
- Audience
- Purpose
- Message
Results: Conferencing alternatives

Offer many features including:

• Free or low cost on campus
• Large number of participants
• Unlimited meetings
• Screen and file sharing
• Instant messaging
• Video and audio recording
### Air Travel Versus Alternatives

**Sample Short-Haul Trip (<300 miles): Seattle to Spokane**

<table>
<thead>
<tr>
<th></th>
<th>Roundtrip CO₂e</th>
<th>Roundtrip Cost</th>
<th>Roundtrip Time</th>
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</thead>
<tbody>
<tr>
<td>Airplane</td>
<td>271 lbs</td>
<td>From $189</td>
<td>2 Hours*</td>
</tr>
<tr>
<td>Car</td>
<td>268 lbs*</td>
<td>From $28</td>
<td>8 Hours</td>
</tr>
<tr>
<td>Bus</td>
<td>132 lbs</td>
<td>From $36</td>
<td>5-6 Hours</td>
</tr>
<tr>
<td>Train</td>
<td>209 lbs</td>
<td>From $110</td>
<td>7-8 Hours</td>
</tr>
</tbody>
</table>
Results: Challenges to alternatives

- Economic incentives
- High valuation of time and convenience
- Environmental backgrounds and beliefs
- Lack of sustainable travel infrastructure
Results: Optimism for faculty and staff

- Ground transportation an option between 100-300 miles
- Videoconferencing easy to use
- Willingness to pay for carbon offsets
- Travel emissions on agendas following presentations
Significance of my study

- Raises awareness of unsustainable travel
- Creates a stepping stone for future communication
- Helps UW consider sustainable innovations in travel infrastructure
Conclusion

- Air travel emissions are a climate threat
- Personal incentives need to be accounted for
- Need a top-down approach for behavior change
- Systematic infrastructure and policy changes are necessary
Acknowledgements

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Thank You!