



Project on the Energy
and Environmental Impacts
of the Digital Economy

The Carbon Footprint of Ride-Hailing: Greenhouse Gas Inventory Methodology for Rapid Use and Policy Engagement

Joshua Skov – University of Oregon, Lundquist College of Business

Aaron Toney – Good Company (Eugene, OR)

Anne Brown – University of Oregon, Department of Planning, Public Policy, and Management



Yale SCHOOL OF FORESTRY &
ENVIRONMENTAL STUDIES

Alfred P. Sloan
FOUNDATION

BerkeleyLaw
UNIVERSITY OF CALIFORNIA

Center for Law, Energy &
the Environment



ENVIRONMENTAL
LAW • INSTITUTE®

What problem did our research address?

- We need a sense of the scale of ride-hailing impacts...
 - Cities do greenhouse gas inventories to understand their community-scale contributions to climate change.
 - There has previously been no off-the-shelf method for including ride-hailing as a distinct emissions source.
- ...to inform well-prioritized climate action...
 - Community-scale inventories frame the policy discussion and inform the menu of action items.
 - People* have little quantitative intuition or automatic sense of scale, so without tools for an emissions source, the menu is incomplete.
- ...and to provoke better state and local policy discussions.
 - Few regulations require disclosures of any kind...
 - ...yet without quantified emissions to point at, it's hard to motivate people* to probe for new data.



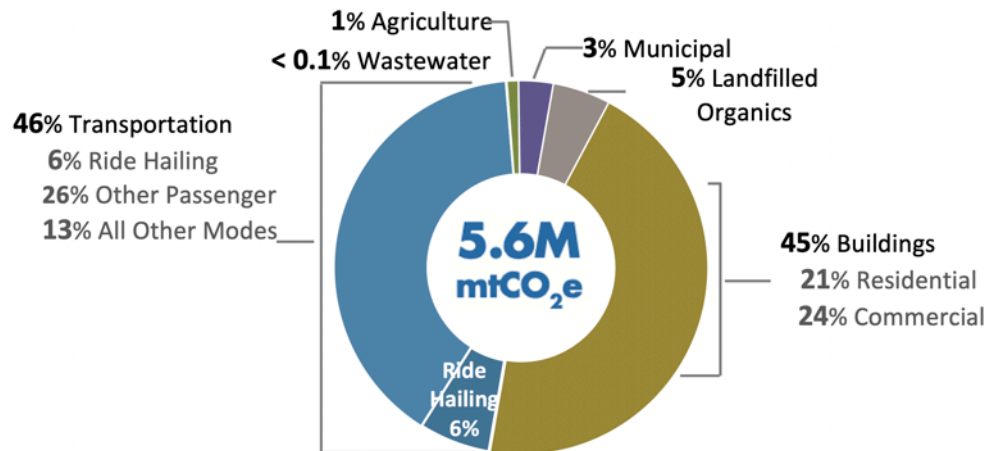
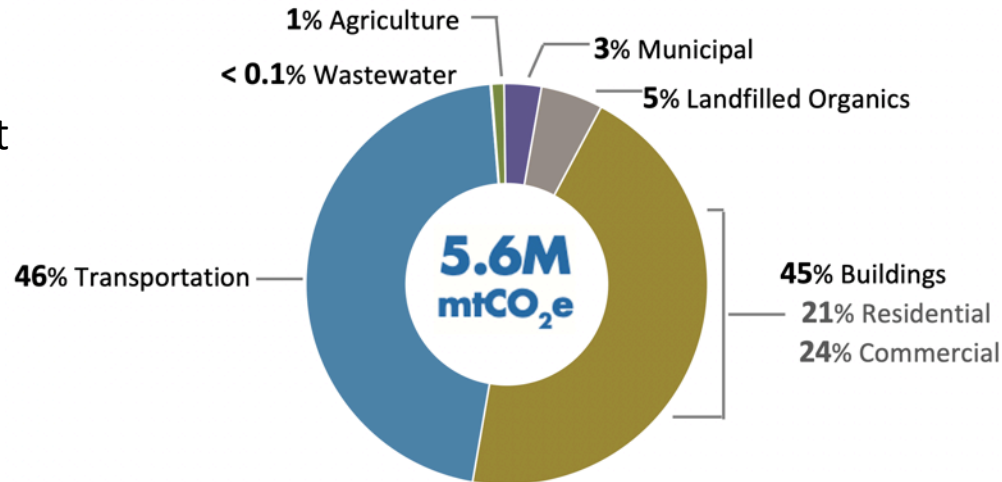
Emissions omission: the case of San Francisco

The top chart shows San Francisco's reported emissions. Ride-hailing does not appear *separately*.

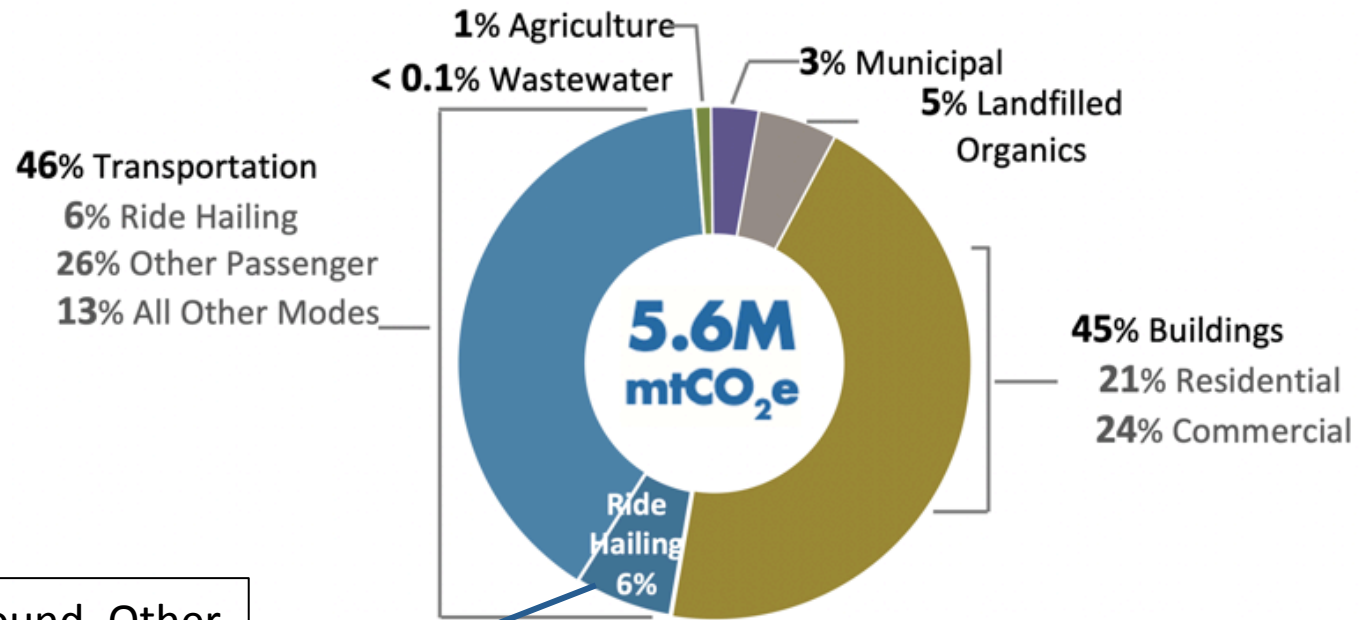
The bottom chart shows the same emissions, but with our estimate of the local emissions from ride-hailing.

(Based on Fehr and Peers (2019). Details in the full report.)

The re-accounting reveals that ride-hailing is a distinctly medium-sized emissions source: smaller than energy in buildings or the rest of transportation, but larger than the emissions of municipal government operations or the methane from landfills.



Emissions omission: indirect effects



This is surely a lower bound. Other emissions related to ride-hailing:

- modal shift
- congestion impacts

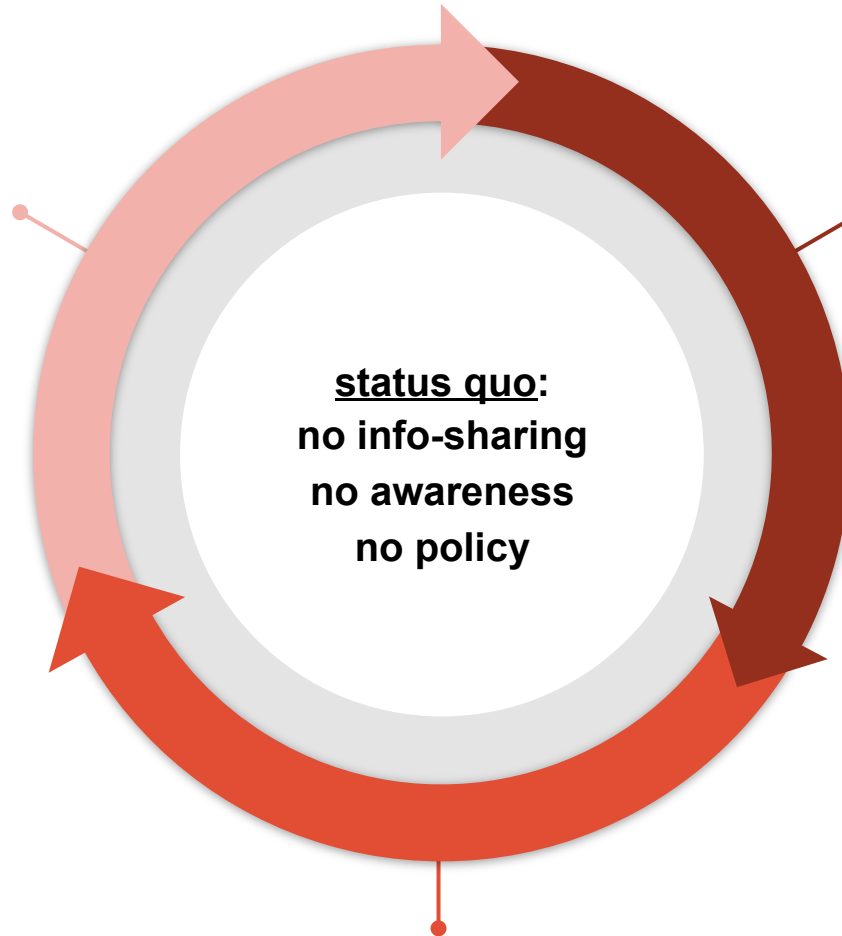
data-awareness-policy *vicious* circle

no (substantive)
data / information
sharing by ride-
hailing firms

no/low awareness of
role and impact of
ride-hailing in urban
mobility ecosystem

status quo:
no info-sharing
no awareness
no policy

no civic activism or legislative
activity to require information
sharing (or different behavior)



data-awareness-policy *virtuous* circle

regular substantive data / information sharing by ride-hailing firms

high awareness of role of ride-hailing in urban mobility ecosystem

status quo:
info-sharing
awareness
policy

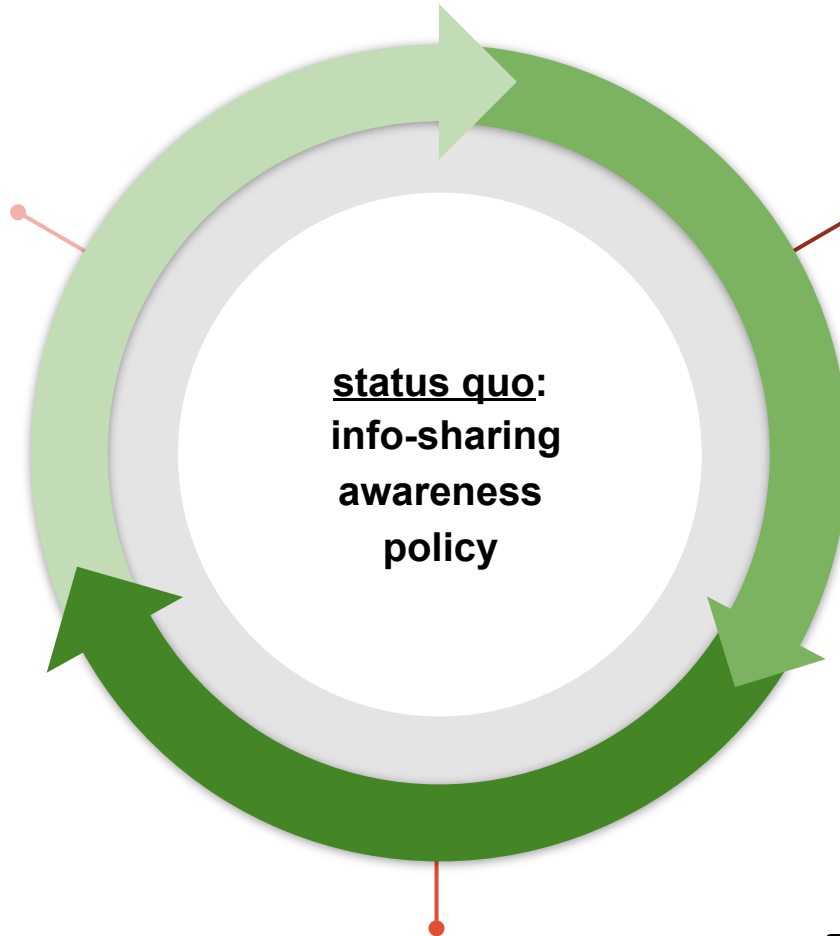
All of this is true for other aspects of urban mobility:

- micromobility
- transit
- curb access
- congestion management

strong civic or legislative activism to require information sharing

We're trying to intervene here!

California ARB's Clean Miles Standard is helping here and here



Thank you!

Joshua Skov

www.joshuaskov.info

Center for Sustainable Business Practices

Lundquist College of Business

University of Oregon

jskov@uoregon.edu