

Grant Deliverables and Reporting Requirements for UTC Grants

UTC Project Information	
Project Title	Environmental and Public Health Impacts of Mobility-on-Demand Systems
University	Cornell University
Principal Investigator	Samitha Samaranayake, H. Oliver Gao
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, \$51,231; Cornell, \$37,111
Total Project Cost	\$88,342
Agency ID or Contract Number	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
Start and End Dates	<div style="display: flex; flex-direction: column; gap: 5px;"> <div> Start date: 11/30/2016</div> <div> End date: 11/29/2017</div> </div>
Brief Description of Research Project	<p>The rapid growth of Mobility-on-Demand (MoD) services such as Uber, Lyft and car2go, and more recently ridepooling options such as Via and Bridj, are a clear indication of consumer demand for more flexible and convenient transit services. These services allow users to access a fleet of shared vehicles by simply using a smart-phone to request a vehicle. Thus, MoD services provide the convenience of a private car without the hassles of maintenance, financing, insurance etc. In addition to being an attractive alternative to vehicle ownership, these services also have the potential to reducing energy consumption and lower emissions in the long run. While these services have the potential to improve urban transportation and pave the way for more scalable and sustainable transportation systems, in their current form of operating as isolated services, it is not clear that this will in fact be the case.</p> <p>In this work, we wish to assess the environmental and public health impacts of MoD systems using integrated systems modeling of transportation, emissions, air quality, and public exposure. In particular, we are interested in comparing these outcomes under different MoD systems, such as single rider ride-hailing systems (i.e.</p>

	<p>Uber, Lyft), low capacity ridepooling systems (i.e. Uberpool, Lyftline), medium capacity ridepooling systems (i.e. Via, Bridj) and high capacity ridepooling systems (on-demand micro-transit). Multiscale emissions inventory and AQ/exposure modeling at both regional and hotspot scales will be conducted for the assessment of future mobility trends/scenarios of MoD.</p>
<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>This research is being implemented as planned.</p>
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>To be reported later</p>
<p>Web Links</p> <ul style="list-style-type: none"> • Reports • Project website 	<p>Available soon.</p>