

# Center for Teaching Old Models New Tricks (TOMNET)

## A USDOT Tier 1 University Transportation Center

---

### PROJECT PROPOSAL: 2021-22

---

**Title: What is the New Normal? An Analysis of Post-COVID-19 Commute and Work Patterns (Year 1)**

**Principal Investigator: Patricia L. Mokhtarian**, Clifford and William Greene, Jr.  
Professor, School of Civil & Environmental Engineering, Georgia Institute of Technology

**Co-Principal Investigator: Giovanni Circella**, Senior Research Engineer, School of Civil & Environmental Engineering, Georgia Institute of Technology

---

## 1. Introduction/Problem Statement

The concept of teleworking<sup>1</sup> has been around since at least the 1960s (Owen, 1962). It gained momentum in the 1970s with the 1973 and 1979 energy crises stimulating the demand for it, and the proliferation of computers enabling it (Harkness, 1977). Teleworking continued to grow in the ensuing decades, with amelioration of congestion, reductions in consumption of non-renewable fuels, and air quality improvement providing public policy motivations, while information and communications technology (ICT) increasingly facilitated it – with the advent first of personal computing, then the internet, and ultimately mobile phones and the mobile internet.

Although growth in telework has been steady, until recently it has also been gradual and limited. The US Census and American Community Survey (ACS) provide the most consistent, regular, and representative measurement of telework in the US, through their capture of the “usual” means of getting to work the preceding week, with “work at home” being one option<sup>2</sup>. By this definition, teleworking adoption has increased from 2.3% of the workforce in 1980 to 5.7% in 2019 – now exceeding the share of transit (4.9%) nationwide and in all but the most transit-rich cities.<sup>3</sup>

The COVID-19 pandemic changed the teleworking landscape almost overnight. More than 60% of employees report having worked at home at some point during the pandemic<sup>4</sup>, many of them doing so almost exclusively. Many pundits have speculated that high levels of teleworking are here to stay, now that employers and workers alike have tasted its benefits and

---

<sup>1</sup> Although many definitions of “teleworking” are possible, in this proposal we refer primarily to working from home using information and communication technology to interact with employer, co-workers, clients/customers, and others. The description of the survey below distinguishes several different types of teleworking.

<sup>2</sup> Thus, this measure is also incomplete, in that it does not count people who work at home less frequently.

<sup>3</sup> <https://data.census.gov/cedsci/table?q=S08&d=ACS%20Year%20Estimates%20Subject%20Tables&tid=ACST1Y2018.S0801>.

<sup>4</sup> <https://news.gallup.com/poll/306695/workers-discovering-affinity-remote-work.aspx>.

realized that it can work for them. On the other hand, many employers have tried to pull their staff back into the office as the force of the pandemic wanes, and some employees, as well, prefer working in a conventional office for a variety of reasons. With these counteracting forces at work, it is unlikely that we will completely return to the *status quo ante*.

Therefore, what *can* we expect regarding post-COVID levels of teleworking? Which types of workers will most likely continue to telework, how often they will do so, and with what related changes to their travel patterns? What will those amounts mean for traffic in major US cities? Certainly traffic levels have plunged to previously unimaginable lows during the pandemic, but they have also risen over time to nearly or completely reach previous levels, even as the temporal distribution of traffic throughout a day remains shifted.<sup>5</sup> Meanwhile, public transportation ridership has remained well below pre-pandemic levels. For a variety of future planning purposes – including the estimation of fuel tax revenues, managed lane revenues, transit farebox revenues, emissions, and infrastructure wear among others – it is important to obtain a reliable snapshot of “new normal” (post-COVID or nearly so) patterns of teleworking and commuting. The proposed project aims to do just that. The resulting benchmark data will enable regional forecasting models to be updated, and evidence-based forecasts and scenarios to be constructed.

## **2. Project Objectives**

The proposed study plans to answer the following questions:

- (1a) What are the adoption rates and frequencies of working from home in Spring 2022 (representing at least the “back side” of the COVID-19 pandemic, if not yet completely post-COVID), and what are the intentions to continue to work remotely in the future?
- (1b) What demographic, geographic, and attitudinal characteristics are associated with adoption/non-adoption, higher or lower frequencies?
- (2a) What is the distribution of one-way commute lengths, and how has that distribution changed since before COVID-19?
- (2b) Putting one-way commute lengths together with commute frequencies, what is the distribution of total weekly commute distance traveled, and how has that distribution changed since before the pandemic?
- (2c) What socio-economic and other characteristics are associated with one-way commute lengths and total weekly commute distances?
- (3) How have the shares of commute modes changed since before the pandemic, and what characteristics are associated with those changes?

## **3. Proposed Methodology and Data**

The proposed methodology entails designing, implementing, and analyzing a survey of a sizable sample of employed Georgia residents (expected N > 2000). Details of the methodology are described in the work plan below.

---

<sup>5</sup> E.g., <https://covid19.apple.com/mobility>; <https://www.greencarcongress.com/2020/10/20200923-sivakindex.html>; [https://www.tomtom.com/en\\_gb/traffic-index/atlanta-traffic/](https://www.tomtom.com/en_gb/traffic-index/atlanta-traffic/).

#### 4. Work Plan (Project Tasks)

This is envisioned to be a multiyear project. The tasks for the first (2021-2022) year are described as follows.

##### ***Task 1: Manage the project and monitor the literature***

This task accounts for the time spent managing the project (see Section 8) and monitoring the literature, for the life of the project. Keeping up-to-date on the literature is especially important, as new research on COVID-19 transportation impacts is being published at a rapid rate.

##### ***Task 2: Design the survey***

As discussed in the Introduction section, the pandemic has upended prior trends with respect to both teleworking and vehicle miles traveled (VMT). Now that the vaccine is widely available and many in-person activities have resumed, new data will be needed in order to predict the new relationship. Accordingly, the disaggregate study presented here involves designing and implementing a survey to ascertain workers' contemporaneous (post-COVID, or nearly so) behaviors and preferences with respect to teleworking. One of the challenges associated with studying teleworking is the wide diversity of arrangements that can qualify for the term, especially considering that the transportation impacts of "teleworking" can differ wildly depending on the type in question. Thus, it will be important for the survey to capture that diversity. In presenting questions to the respondent, we will distinguish between teleworking:

1. as the primary place of employment (i.e. home-based self-employment);
2. instead of going to the regular workplace (conventional "telecommuting", eliminating the commute);
3. during regular working hours *in addition to* going to the regular workplace (partial-day teleworking, perhaps eliminating peak-period trip(s) but not the commute *per se*); and
4. after hours (i.e. evening-and-weekend work at home).

Since the self-employed largely have control over their place of work and since after-hours teleworking has essentially no travel impacts, we will focus primarily on the second (all-day) and third (partial-day) forms of teleworking. With respect to these forms, we will ask a series of questions to ascertain (Mokhtarian and Salomon, 1996a, b, 1997; Mokhtarian, 1998):

- how much teleworking the *job* permits;
- how much teleworking the *manager* permits;
- how much the respondent *wants* to telework; and
- how much s/he actually *does* telework now.

We will also ask what the respondent thinks those factors will look like a year later, which will help ascertain the extent to which teleworking trends may have stabilized or not. In addition, the survey will address employees' specific *motivations* to telework (or not), and any *constraints* on their ability to telework (Mokhtarian and Salomon, 1994; Mokhtarian et al., 1998; Stanek and Mokhtarian, 1998). Finally, it will collect standard sociodemographic information, measure a variety of relevant attitudes, and include a few commute- and work-related questions such as occupation, commute distance and primary mode, typical departure/arrival times in both commute directions, and managed lane usage.

**Task 3. Administer the survey**

To conserve budget and time, we propose to field the survey completely online. We expect the samples to be focused in Georgia counties with populations large enough to be encompassed by MPOs. We plan to resample previous respondents from the 2017 National Household Travel Survey (NHTS) Add-on and a 2017 Georgia Department of Transportation-sponsored survey administered by the research team at Georgia Tech, thus creating a longitudinal dataset that will allow direct comparisons of respondents’ activity and travel patterns with the ones they reported well before the disruption brought by the pandemic. We will invite additional respondents to replace those who decline to participate again and to further expand and rebalance the sample. These new invitations will be drawn from members of online opinion panels. Each of these two sources has biases, but they are different biases that partly counteract each other.

**Task 4. Clean, weight, and analyze the data**

We will perform a variety of checks for internal response consistency, inattentive responding, missing data, and so on. We will decide when to impute missing data and whether/how to correct inconsistent responses. Once the dataset is largely clean, we will weight the final sample to represent the adult employed population of Georgia on variables such as age, gender, race, income, and location type (urban, suburban, small town, rural), as well as telework status (since previous work has found that online respondent recruitment overrepresents teleworkers by sizable factors, even after weighting on standard demographic variables).

We expect the above activities to occupy the first year of this project. In future years, analysis can begin in earnest. Key analyses will include descriptive tabulations and crosstabulations of responses, as well as models of teleworking adoption and frequency that can simultaneously account for multiple influences on those decisions. The primary outcomes of this project will be up-to-date assessments of contemporaneous teleworking and commute patterns for the adult employed population of Georgia. Specific analyses will respond to the research questions raised in the Goals and Objectives section.

**Task 5: Prepare interim report**

In later years, the results of the study will likely constitute part of a PhD dissertation, and will certainly result in one or more papers for submission to a high-quality peer-reviewed journal. In addition, we plan to present the paper(s) at one or more professional conferences (see Section 7). During this first year, we will probably not be able to produce a paper; however we will document the data collection, cleaning, and weighting process as a foundation for later analyses.

**5. Project Schedule**

	Task Name	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Project management and literature review												
2	Design, pretest, refine survey; prepare sampling plan												
3	Administer survey												
4	Clean, weight, and analyze the data												
5	Prepare interim report												

## 6. Relevance to the Center Theme/Mission

TOMNET's mission is to advance data and methods to reflect the role of attitudes, perceptions, values, and preferences in travel behavior models. While passive data sources such as GPS traces and farecard usage measure travel *behavior*, the measurement of *attitudes* (and the like) generally requires administering a survey instrument of some kind. The proposed project will collect new data on the important question of how COVID-19 has changed travel behavior among employed residents of Georgia. As mentioned in Section 4, the survey will measure a variety of relevant attitudes, and we expect that in the second year and beyond, the project will generate multiple papers in which attitudes play a key role in illuminating post-COVID travel behavior.

## 7. Anticipated Outcomes and Deliverables

In terms of *research outcomes/benefits*, this study will provide an illuminating statewide snapshot of late-pandemic to post-pandemic travel behavior, which will offer an important counterpoint to the numerous assessments of *expected* post-COVID behavior that were made in the midst of the pandemic. In addition, the data will lend itself to pioneering several new methods for imputing attitudes into datasets that currently lack them, which we will pursue in future years of the project. With respect to *tangible outcomes/deliverables*, we expect, in this first year, to produce an interim report describing the data collection process and the subsequent cleaning and weighting activities. Papers with more substantive analyses will be forthcoming in later years.

## 8. Research Team and Management Plan

Principal Investigator *Patricia Mokhtarian* is an internationally-known travel behavior scholar, who has specialized in measuring and modeling attitudes and incorporating them into models of travel-related behaviors. She will be responsible for the overall direction of the project, and will be directly engaged with its ongoing progress. Co-PI *Giovanni Circella* is a seasoned, thoughtful, and rigorous travel behavior scholar; he will provide substantive input and coordination at all stages of the project. In addition, *one PhD student* will be responsible for the day-to-day execution of substantive project tasks.

The project team will meet weekly for in-depth reports on progress and tactical planning. All members are local, so communication will be straightforward, of course including online video meetings and email. An internal project website will serve as a working repository for literature, presentations prepared by the project, data, and analyses. Milestone products, including papers, presentations, and reports will be provided to the central TOMNET repository.

## 9. Technology Transfer Plan

The project leadership has proven track records of scholarly productivity and research dissemination. For this project, the first year will be devoted to collecting and cleaning the data, building a solid foundation for the more substantive analyses to come in future years. Based on past history, we expect multiple opportunities to present project findings throughout the life of the study and beyond, and we will seek out and volunteer for such opportunities as appropriate. In addition, to disseminate the work among practitioners, we expect to present the study at one of the national MPO conferences, one or more meetings of MPOs in Georgia, at the annual research exposition hosted by the Georgia Department of Transportation, and/or in other locations as opportunities are made available. Finally, the project team will seek out an opportunity to present

a webinar regarding the research results, to disseminate to practitioners who may be unable to travel to conferences at which we present the work.

## 10. Workforce Development and Outreach Plan

The project will employ a PhD student, and will in all likelihood be the source of data for his dissertation. In addition, the survey proposed for this project has a number of questions in common with two other surveys being directed by the PI using industry funding. Those two surveys are staffed by two female PhD students and a postdoc. All these researchers will meet together weekly for the life of the projects, exchanging ideas and methods. The leadership team (directed by a female PI) is devoted to the careful mentoring of female graduate students, including with respect to career-life balance, a major reason why female PhD students do not choose academia (Mason et al., 2009). Research has shown that mentoring and positive role models can make a big difference in the attraction of women to STEM fields (Hill et al., 2010). Accordingly, this project will collaterally contribute to the professional development of two female PhD students as well as the postdoc.

## 11. References

- Choo, Sangho, Patricia L. Mokhtarian, and Ilan Salomon (2005) Does telecommuting reduce vehicle-miles traveled? An aggregate time series analysis for the U.S. *Transportation* **32**, 37-64.
- Harkness, Richard C. (1977) Selected results from a technology assessment of telecommunication-transportation interactions. *Habitat International* **2**, 37-48.
- Hill, C., C. Corbett, and A. St. Rose (2010) *Why So Few? Women in Science, Technology Engineering and Mathematics*. American Association of University Women.  
[http://www.aauw.org/files/2013/02/Why-So-Few-Women-in-Science-Technology-Engineering- and-Mathematics.pdf](http://www.aauw.org/files/2013/02/Why-So-Few-Women-in-Science-Technology-Engineering-and-Mathematics.pdf).
- Mason, Mary Ann, Marc Goulden, and Karie Frasch (2009) Why graduate students reject the fast track. *Academe* **95(1)**, 11-16.
- Mokhtarian, Patricia L. (1998) A synthetic approach to estimating the impacts of telecommuting on travel. *Urban Studies* **35(2)**, 215-241.
- Mokhtarian, Patricia L. and Ilan Salomon (1994) Modeling the choice of telecommuting: Setting the context. *Environment and Planning A* **26(5)**, 749-766.
- Mokhtarian, Patricia L. and Ilan Salomon (1996a) Modeling the choice of telecommuting 2: A case of the Preferred Impossible Alternative. *Environment and Planning A* **28**, 1859-1876.
- Mokhtarian, Patricia L. and Ilan Salomon (1996b) Modeling the choice of telecommuting 3: Identifying the choice set and estimating binary choice models for technology-based alternatives. *Environment and Planning A* **28**, 1877-1894.
- Mokhtarian, Patricia L. and Ilan Salomon (1997) Modeling the desire to telecommute: The importance of attitudinal factors in behavioral models. *Transportation Research A* **31(1)**, 35-50.
- Mokhtarian, Patricia L., Michael N. Bagley, and Ilan Salomon (1998) The impact of gender, occupation, and presence of children on telecommuting motivations and constraints. *Journal of the American Society for Information Science* **49(12)**, 1115-1134.
- Owen, W. (1962) Transportation and technology. *The American Economic Review* **52**, 405-413.

Stanek, David M. and Patricia L. Mokhtarian (1998) Developing models of preference for home-based and center-based telecommuting: Findings and forecasts. *Technological Forecasting and Social Change* **57(1/2)**, 53-74.

## **12. Qualifications of Investigators (One-page CV per Investigator)**

Appears after the budget page.

## **13. Budget Including Non-Federal Matching Funds**

This project is partially funded through UTC match funding provided by the Georgia Department of Transportation (GDOT); however, TOMNET funding is also being used, to augment the sample size and to enable launching the survey in a timely manner despite a 9-month delay in receiving the GDOT funding.

**Institution: Georgia Institute of Technology**

**Project Title: What is the New Normal? An Analysis of Post-COVID-19 Commute and Work Patterns (Year 1)**

**Principal Investigator: Patricia Mokhtarian**

**Budget Period: 8/1/2021 - 07/31/2022**

CATEGORY	Budgeted Amount from Federal Share	Budgeted Amount from Matching Funds	Explanatory Notes; Identify Source of Matching Funds
Faculty Salaries	\$18,100	\$13,051	\$20,205/mo * 0.75 mo for Mokhtarian; \$9149/mo * 1.75 mo for Circella
Other Staff Salaries	–		
Student Salaries	\$4,800	\$24,000	2+10 months
Fringe Benefits	\$6,160	\$5,551	32.6% for faculty; 5.4% for students
<b>Total Salaries &amp; Benefits</b>	<b>\$29,060</b>	<b>\$42,602</b>	
Student Tuition Remission	\$3,114		\$1557/mo, not charged on GDOT projects
Operating Services and Supplies		\$3,448	software licenses, other supplies, open access publication fees
Domestic Travel	\$1,500		TRB conference
Other Direct Costs (specify)	\$9,000	\$20,000	Data collection costs (Qualtrics opinion panel, N ~ 2000)
Other Direct Costs (specify)	\$6,400		Recruitment and reminder postcards for recontacts
<b>Total Direct Costs</b>	<b>\$20,014</b>	<b>\$23,448</b>	
F&A (Indirect) Costs	\$7,185	\$8,418	Georgia Tech faculty salary
<b>TOTAL COSTS</b>	<b>\$56,259</b>	<b>\$74,467</b>	

Note: All matching funds come from GDOT Research Project 22-04.



## **PATRICIA L. MOKHTARIAN, Ph.D.**

**Clifford and William Greene, Jr. Professor**, School of Civil & Environmental Engineering  
Georgia Institute of Technology, Atlanta, GA 30332-0355 Email: [patmokh@gatech.edu](mailto:patmokh@gatech.edu)

### **Education**

PhD, Industrial Engineering/Management Sciences, Northwestern University, 1981  
MS, Industrial Engineering/Management Sciences, Northwestern University, 1977  
BA (summa cum laude), Mathematics, Florida State University, 1975

### **Employment and Professional Experience (last 32 years)**

Clifford and William Greene, Jr. Professor (2021-present) / Professor (2013-2020), School of Civil & Environmental Engineering, Georgia Institute of Technology  
Full (1999-2013)/Associate (1996-1999)/Assistant (1990-1996) Professor, Department of Civil & Environmental Engineering, University of California, Davis  
Chair and Graduate Adviser (1997-2013), Interdisciplinary Graduate Group in Transportation Technology and Policy, University of California, Davis  
Acting Director (1999-2000) / Associate Director for Education (2001-2013), Institute of Transportation Studies, University of California, Davis

### **Fields of Interest and Expertise**

(1) Attitude measurement and survey design; (2) Statistical/econometric analysis of transportation data; (3) Impacts of information/communications technology on travel; (4) Attitudes toward travel; (5) Activities conducted while traveling; (6) Impacts of the built environment on travel behavior

### **Recent Relevant Publications (not already cited in the proposal)**

Choi, Sungtaek & Patricia L. Mokhtarian (2020) How attractive is it to use the internet while commuting? A work-attitude-based segmentation of Northern California commuters. *Transp. Research A* **138**, 37-50.  
Clark, Calvin, Patricia L. Mokhtarian, Giovanni Circella, and Kari Watkins (2021) The role of attitudes in perceptions of bicycle facilities: A latent-class regression approach. *Transp. Research F* **77**, 129-148.  
Kash, Gwen & Patricia L. Mokhtarian (2021) What counts as commute travel? Identification and resolution of key issues around measuring complex commutes in the National Household Travel Survey. *Transportation Research Record* **2676(3)**, 385-397.  
Kim, Sung Hoo & Patricia L. Mokhtarian (2018) Taste heterogeneity as an alternative form of endogeneity bias: Investigating the attitude-moderated effects of built environment and socio-demographics on vehicle ownership using latent class modeling. *Transportation Research A* **116**, 130-150.  
Kim, Sung Hoo, Patricia L. Mokhtarian, & Giovanni Circella (2020) Will autonomous vehicles change residential location and vehicle ownership? Glimpses from Georgia. *Transp. Res. D* **82**, 102291.  
Malokin, Aliaksandr, Giovanni Circella, & Patricia L. Mokhtarian (2021) Do millennials value travel time differently because of productive multitasking? A revealed preference study of Northern California commuters. *Transportation* **48**, 2787-2823.  
van Herick, David & Patricia L. Mokhtarian (2021) Quantifying the share of total apparent effect that is genuinely due to a treatment: A comparison of methods. *Research in Transp. Economics* **90**, 101020.  
Wang, Xinyi, F. Atiyya Shaw, & Patricia L. Mokhtarian (2022) Latent vehicle type propensity segments: Considering the influence of household vehicle fleet structure. *Travel Behaviour and Society* **26**, 2022, 41-56.

### **Graduate Student Supervision/Advising**

**Graduated:** 18 PhDs (including 5 women), 26 MSs (8); **Current Supervision:** 3 PhDs (2)

### **Recent Honors and Awards**

International Association for Travel Behaviour Research Lifetime Achievement Award (2021)  
Zephyr Foundation Outstanding Industry Contributor Award (2021)  
National Associate of the National Academies of Sciences, Engineering, and Medicine (2020)

**GIOVANNI CIRCELLA, PhD**  
**Senior Research Engineer**, Civil and Environmental Engineering  
Georgia Institute of Technology, Atlanta, GA 30332-0355 Email:  
[gcircella@gatech.edu](mailto:gcircella@gatech.edu)

### **Education**

Ph.D., Infrastructure Engineering and Transportation Planning, Politecnico di Bari, 2008  
M.Sc., Agricultural and Resource Economics, University of California, Davis, 2009  
M.Sc. + B. Sc. (Italian Laurea, summa cum laude), Civil Eng (Transportation), Politecnico di Bari, 2004

### **Employment and Professional Experience (last 25 years)**

Senior Research Engineer/Res. Eng., School of Civil and Environmental Engineering, Georgia Institute of Technology, 2013 – present (75% appointment).  
Director, 3 Revolutions Future Mobility Program, Institute of Transportation Studies, UC Davis, 2017 – present.  
Honda Distinguished Scholar on New Mobility Studies: Endowment from American Honda Co., UC Davis, 2018 - present.  
Associate/Assistant Professional Researcher, Institute of Transportation Studies, University of California, Davis, 2015 – present (25% appointment).  
Post-Doc Researcher, Institute of Transportation Studies, UC Davis, 2009 – 2015.

### **Fields of Interest and Expertise**

(1) Personal attitudes and travel behavior analysis; (2) Discrete choice modeling; (3) Travel survey methods and data collection; (4) Transportation planning; (5) Transportation demand modeling and forecasting; (6) Statistical analysis of transportation data; (7) Sustainability and energy; (8) Shared mobility; (9) Information communication technologies and transportation

### **Recent Relevant Publications**

“What travel modes do shared e-scooters displace? A review of recent research findings”, by K. Wang, X. Qian, D. Fitch, Y. Lee, J. Malik and G. Circella, *Transport Reviews*, 2022.  
“Exploring the Factors that Affect the Frequency of Use of Ridehailing and the Adoption of Shared Ridehailing in California”, by J. Malik, F. Alemi and G. Circella, *Transportation Research Record (forthcoming)*.  
“A deeper investigation into the effect of the built environment on the use of ridehailing for non-work travel”, by J. Malik, D.S. Bunch, S. Handy and G. Circella, *Journal of Transport Geography (forthcoming)*.  
“Will Autonomous Vehicles Change Residential Location and Vehicle Ownership? Glimpses from Georgia”, by S. H. Kim, P. L. Mokhtarian and G. Circella, *Transp. Research Part D (forthcoming)*.  
“What Drives the Gap? Applying the Blinder–Oaxaca Decomposition Method to Examine Generational Differences in Transportation-related Attitudes”, by A. Etezady, A. Shaw, P. L. Mokhtarian and G. Circella, *Transportation*, 48(2), 2021, 857-883.  
“Who Doesn’t Mind Waiting? Examining the Relationships between Waiting Attitudes and Person- and Travel-Related Attributes”, by A. Shaw, A. Malokin, P. L. Mokhtarian and G. Circella, *Transportation*, 48(1), 2021, 395-429.

### **Graduate Student Supervision/Advising**

**Graduated:** 1 MS; **Current Supervision:** 5 PhDs (including 2 women)

### **Honors and Awards**

Keynote Speaker, Trailways 80th Annual Meeting and Conference, Fort Myers, FL, Feb 2016.  
Fulbright Fellowship, University of California, Davis, 2006-2007.  
Erasmus Scholarship, Universidad Politecnica de Valencia, Spain, 2013.  
Research Award, City of Bari, Italy, for the Best Research Thesis, 2006.

## Grant Deliverables and Reporting Requirements for UTC Grants (November 2022)

### Exhibit F

UTC Project Information	
Project Title	What is the New Normal? An Analysis of Post-COVID-19 Commute and Work Patterns (Year 1)
University	Georgia Institute of Technology
Principal Investigator	Patricia L. Mokhtarian
PI Contact Information	<a href="mailto:patmokh@gatech.edu">patmokh@gatech.edu</a> , 404-385-1443
Funding Source(s) and Amounts Provided (by each agency or organization)	TOMNET, \$56,259 Georgia Department of Transportation, \$74,467
Total Project Cost	\$130,726
Agency ID or Contract Number	
Start and End Dates	Aug. 1, 2021 - July 31, 2022
Brief Description of Research Project	Using a new statewide (Georgia) data collection, this study examines teleworking, commuting, and other travel behaviors in Spring 2022, as daily life continues to evolve into a new post-COVID normal. The first year of this multiyear project is devoted to survey design, data collection, and data cleaning and weighting (for representativeness). Among other analyses, future years will document contemporaneous frequencies of teleworking and commuting, and model those frequencies to provide insight into the kinds of people and circumstances associated with teleworking (and commuting) more, or less, frequently.
Describe Implementation of Research Outcomes (or why not implemented)	
Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links	<ul style="list-style-type: none"> <li>• Reports</li> <li>• Project Website</li> </ul>