

## 1. Projects



# When new lifestyles disrupt daily mobility in England

Finished research  
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Thanks to new “remote” practices enabled by the development of telework and online shopping, we can perform our activities in a greater variety of locations and many trips that were previously necessary are now avoidable. But the organization of our everyday life is becoming more complex and these trends are seemingly leading us to perform more and more carbon-emitting trips. By exploring data relating to England from the UK National Travel Survey, this research was able to refine the analysis of daily mobility usually carried out in France (where surveys are based on one “typical day”) by considering the variability of travel over a whole week, which reflects our increasingly fragmented lives more authentically.

### Research participants

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## The goal of the project

In recent decades, several key developments have changed the world of work and more generally the lifestyles of Western countries: the increase of women in the workforce, the multiplicity of workplaces and the growing importance of digital technology. These developments tend to complicate how days and weeks are organized in terms of schedules and locations, and impact the overall mobility of workers. By structuring activity schedules, work is likely to affect other types of daily activities that are often coupled or synchronized with the beginning or end of work, while ICTs blur the boundaries separating work from other activities. The purpose of this research is to understand how current

evolutions in the lifestyles and working conditions of workers are causing adaptations in daily travel and its coordination within the household. Three dimensions of people's lifestyles were studied: the influence of the workplace and of teleworking on travel, the effects of online shopping, and finally the determinants of taking children to their activities among dual-income families. The analysis of quantitative data allows us to describe these practices, to understand whether there are interactions between these different activities and see if they make it possible, as one might think regarding digital tools, to reduce travel and associated CO2 emissions.

## **The research method**

To thoroughly investigate the different temporalities of work and the mobilities associated to them directly (home-to-work trips, business travel, etc.) or indirectly (such as taking children to their activities or buying household supplies), we must go beyond the "traditional" timescale to analyze mobility, which is a single day. Given the many different temporalities generated by the evolutions examined above, other, broader time scales are needed. To do this, the research team relied on data from the UK National Travel Survey (NTS) that uses an observation period of a full week. Conducted every year since 1995, it covers a representative sample of the country's population. It surveys almost 7.000 households and 17.000 individuals every year. It is common in studies using data from the UK National Travel Survey (NTS) to aggregate several years and analyze them together, making it possible to work from very large samples. The data from the NTS offers observational opportunities which existing surveys in France and many other European countries lack of, given that they focus on a "typical day" as representative of weekly practices. The UK's data allows us to include variations in working days between different days of the week. This makes the UK NTS one of the few available sources of data to examine, in a disaggregated manner, the relationship between workdays and other out-of-home activities.

## **The main findings**

### **I) WORKPLACES AND TRAVEL: contemporary developments are not leading to less travel**

#### **1. The multiplication of workplaces increases travel**

- Workers who use different workplaces during the week travel 10% more kilometers than workers who have only one fixed workplace outside the home. Their CO2 emissions are thereby increased proportionally.
- This is because they tend to live on average further away from their different workplaces and tend to use a car more often for their travels. These findings are consistent with the results of the National Mobility and Lifestyles Survey 2020 conducted in France, showing that having multiple workplaces greatly increases travel.
- Finally, the stable setup of having one single fixed workplace outside the home seems to be the most conducive to using public transport and active modes. The use of cars is therefore lower among people with only one fixed workplace (75% of trips) than among those who have several during the week (87%). While this single workplace pattern remains the most common, it is the one that is most rapidly decreasing : it applied to 74% of the workforce in 2002, compared to 66% ten years later.

#### **2. Meanwhile, telework does not necessarily incur a reduction in CO2 emissions**

- Teleworkers tend to live further away and have longer travel distances than workers who have only one fixed workplace outside their home. They also end up performing work-related trips more frequently (going to a client's house, driving to appointments...).

- Furthermore, when occasional teleworkers work from home, they often perform more non-work-related trips (chauffeur children, shopping, etc.). This phenomenon is even more pronounced among people who work from home full-time : they make 13 non-work-related trips per week, compared to 8 for workers who commute to a separate workplace. However, it does not appear to have any effect on weekend travel : people who work from home do not travel more than the others on weekends.
- As such, teleworkers make on average fewer work-related trips (-15%) but have larger weekly time budgets (+25%). By traveling 50% more kilometers, largely by car, they emit 50% more CO<sub>2</sub> than workers with a single fixed workplace. These effects that increase the volume of travel are even more important for teleworkers who stay at home only one day a week, and less important for those who stay home more than two days a week.

### **What can we conclude from these observations?**

- This data compares, at a given moment, the practices of workers who only have one fixed workplace outside the home and those of people who telework once or several times a week. It does not measure the effects over time of previously “fixed” workers shifting to telework.
- However, it shows that with regards to the ecological transition, the occasional practice of telework does not seem to be a solution in itself. The practice should be encouraged beyond two days a week, and we should develop carbon-free modes of transport that are adapted to the needs of these increasingly numerous workers.
- One hypothesis to explain why telework has the effect of lengthening home-workplace travel distances is connected to residential choices, and is worth exploring: does the development of telework allow households to relocate further away from their workplace? Or is telework instead more prevalent among workers who already live far from their workplace? On a macroscopic scale, telework could be a lever to enable a better distribution of workers throughout the territory, one that is more balanced and adapted to the aspirations and needs of households. Such a change would require transport policies that are adapted to these new trips, which are less frequent but carried out over longer distances.

## **II) ONLINE SHOPPING AND IN-STORE TRIPS: it's not necessarily one or the other**

### **1. Online grocery shopping reduces travel**

- For grocery shopping, buying online has a substitution effect: it reduces trips to the grocery store as well as the average time spent there. Households that shop for food online make almost half as many trips (-42%) for this purpose than households who do not.
- It is difficult to draw conclusions with regards to the ecological transition because, while households that buy food online emit 39% less CO<sub>2</sub> for this purpose than households that shop in-store, estimates show that emissions caused by the delivery of online food purchases are equivalent. However, the conversion of professional delivery fleets to more eco-friendly vehicles and the optimization of delivery routes are potentially effective levers for controlling these emissions.

### **2. For non-food purchases, however, in-store trips and online shopping are cumulative**

- Households that frequently buy online tend to also perform more trips for this purpose and spend on average more time in stores. These households perform almost 10% more trips and more kilometers for non-food shopping.
- Contrary to what one might think, online shopping is not preferred by those with longer workdays or more complex day-to-day schedules.

### **III) TAKING CHILDREN TO THEIR ACTIVITIES : women still bearing the burden**

- Among dual-income families with equal working days, men and women are equally likely to be in charge of taking the children to their activities. However, in reality, women perform two-thirds of these trips.
- Indeed, women find themselves more often than men in work patterns that are compatible with this task, especially when working part-time or near the home. In addition to inequalities that women face in the labor market, it can be hypothesized that decisions are made with regards to adapting their work patterns for the arrival of a child.
- The data shows that couples who share the task do not do so during the same day (one parent in the morning, the other in the evening), but rather among different days of the week.

## **Conclusions**

- Changes in working patterns (multiplication of workplaces, increasing telework) are leading us to perform more and more carbon-emitting trips. The analysis of the UK NTS confirms the findings on telework of the National Mobility and Lifestyles Survey 2020 conducted in France by the Mobile Lives Forum: its development raises questions with regards to the ecological transition and needs to be accompanied so that it can really reduce travel, in particular carbon-emitting trips. This result is all the more important today as the pandemic is transforming our work and travel habits.
- While an increase in online shopping for non-food products goes hand in hand with an increase of in-store trips, online shopping for food provides a way to limit CO2 emissions. Indeed, these purchases reduce the number of in-store trips by consumers, and while it is not clear yet whether deliveries currently emit less, they represent a structured activity that will be easier to organize and decarbonize than individual practices.
- Finally, taking the children to their activities, which is overwhelmingly performed by women, reminds us of the unequal burden shared between spouses. In addition to fighting inequalities related to household expenses, companies must take this dimension into account when organizing work in order not to penalize women twice.

## **Methodological conclusions**

- The traditional approach based on a single typical day and on averages provides a fixed understanding of lifestyles, one that does not allow for the analysis of variations and rigidities in daily travel habits in relation to working patterns and new digital practices.
- By understanding workers' lifestyles as a whole, we can draw conclusions that go beyond analyses based on particular motives, especially in the context of a discussion about how to control the number of polluting trips (telework, online shopping...) to identify counter-intuitive effects and propose appropriate public policies.
- The method used in this survey provides answers and raises new questions that deserve to be explored through qualitative surveys: the relationship between work patterns and residential household choices, the determinants of the multiplication of workplaces (types of jobs, territories, etc.), or the characteristics and determinants of physical trips performed in connection to online shopping.

## **Download the full report**



## Research Project for the Mobile Lives Forum

### **When new lifestyles disrupt daily mobility in England**

Analysis of data from the UK National Travel Survey

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#### Context

In recent decades, the world of work has seen several key developments : the increase of women in the workforce, the transformation of employer-employee relations and the growing importance of Information and Communication Technologies (ICTs). These changes modify the workers' typical day, in terms of schedules and workplaces, but also with regards to their mobility, as well as the mobility of those who travel with or for them. Indeed, due to how work significantly structures people's schedules, it affects other activities of daily life that are often coupled or synchronized with the beginning or end of the workday. Or it even overlaps with them because of the increasing intertwining of work and other activities due to ICTs.

The results of this study are based on data relating to England from the UK National Travel Survey. This data predates the COVID-19 health crisis, which is still ongoing at the time of writing this summary note (January 28, 2021). However, we believe that these findings can inform or question the changes in mobility practices that this crisis may give rise to or consolidate.



## **Mobility**

For the Mobile Lives Forum, mobility is understood as the process of how individuals travel across distances in order to deploy through time and space the activities that make up their lifestyles. These travel practices are embedded in socio-technical systems, produced by transport and communication industries and techniques, and by normative discourses on these practices, with considerable social, environmental and spatial impacts.

En savoir plus x

## Teleworking

The remote performance of a salaried activity outside of the company's premises, at home or in a third place during normal working hours and requiring access to telecommunication tools.

En savoir plus x

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Associated Thematics :

### Lifestyles

- Diversity of lifestyles
- Inequalities
- Digital technologies
- Proximity
- Work

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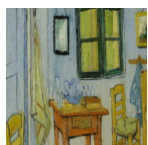
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Geographical re-placement

Thierry Ramadier



History of the concept of mobility

Vincent Kaufmann

1 <https://en.forumviesmobiles.org/project/2019/01/07/national-survey-mobility-and-lifestyles-12797>

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