

1. Projects



28 hours per week: The mobility and energy implications of working time reduction (WTR) in Germany

Ongoing research
Begin: November 2019
End: October 2021

In 2018 German metal industry workers won the right to reduce their working week from 35 to 28 hours. As with similar schemes elsewhere, sustainability commentators have highlighted the potential of working time reduction not just to achieve a better work-life balance but also to reduce energy consumption by reducing overall material consumption. This research project examines the desirability and sustainability of this scheme, paying particular attention to the conditions under which reduced working hours can produce social and environmental benefits. What are the participants' aspirations? What are the impacts on their mobility and lifestyle? Is the reduction of direct and indirect energy consumption as significant as expected?

Research participants

- Miklós Antal
- Dominik Wiedenhofer
- Thiago Guimarães Rodrigues
- Barbara Plank

Introduction

In February 2018, almost one million German metal industry workers won the right to reduce their working week from the standard 35 hours to 28 hours for up to two years. The employees involved work for companies such as Bosch and Daimler, whose actions are widely followed across the whole economy, thus raising the possibility that shorter working weeks will spread to other firms, sectors and

countries. This development is of great interest, as it connects three important issues: (1) the future of work in a world transformed by automation, (2) changing lifestyles and aspirations about the “good life” in contexts where economic security and basic needs are satisfied, and (3) a new approach to sustainability, given the inadequacy of traditional technology-based measures to mitigate catastrophic climate change.

Ecological economists have long speculated about the reduction of working time as a win-win-win policy, anticipating social, economic, and environmental benefits. The prospect of lower time pressure for individuals, lower unemployment rates for countries, and lower energy use and emissions for the planet due to reduced mobility and consumption, has generated continuous media attention around such policies. At first sight, the reduction of working hours looks like an ideal measure for a transition that yields social and environmental dividends without creating economic problems. However, there are several important unknowns and little empirical research on the aspirations and practices of those voluntarily reducing their paid working time, as well as the implications for everyday life, mobility and consumption.

Objectives

Our main goal is to understand the aspirations of people who choose to participate in the work time reduction scheme (WTR) of IG Metall in Germany and probe how WTR affects their activities, well-being, mobility, household consumption and their direct and indirect energy footprints (Table 1). We envision that a deeper understanding of these factors will inform whether and how WTR can be a socially attractive and environmentally beneficial policy for a carbon neutral sustainable future.

Regarding aspirations, our first priority is to undertake a general assessment of self-reported reasons for joining WTR, paying special attention to mobility aspects, such as time spent commuting to paid work, or time needed for family-related (e.g. care work) or leisure travel. A second priority is to identify and describe household characteristics that increase the willingness to participate in WTR. A third priority is to understand how well-being might change due to WTR.

Regarding energy footprints, our first priority is to investigate how WTR affects mobility-related and other types of direct and indirect energy consumption. A second priority is to determine which socio-economic and infrastructural factors affect the changes in household energy footprints due to WTR and how they could be leveraged to improve the environmental benefits of WTR. A third priority is to identify channels for potential knock-on effects or rebound effects, e.g. increased long-distance travel due to available leisure-time.

Research Questions & hypotheses

All questions and hypotheses refer to the WTR scheme of IG Metall.

Q1. What are the main motivations for WTR?

- H1: If an adequate level of income is guaranteed, then WTR participants try to spend more time with their family, friends, leisure activities, and aim for a less tiring and more relaxed life. Mobility considerations influence motivations through two main channels: time pressure can be smaller by reducing the time used for commuting, and WTR leaves more time for leisure travel.

Q2. How does household level mobility and direct and indirect energy consumption change due to WTR?

- H2. Total household energy consumption goes down in almost all households participating in WTR, but the level of reduction is very different depending on household characteristics and shifts in activity patterns and consumption of different goods and services. The largest differences are due to newly

emerging patterns of travel behaviour (including leisure travel). Achievable energy savings are strongly influenced by the available transport infrastructure.

Q3. What are the main barriers to make WTR a win-win strategy serving social and environmental goals without creating economic difficulties?

- H3. The main barrier is not disappointment since participants are generally satisfied with their choice, but low participation due to fears of status loss and job insecurity, and a reduction of energy savings due to increased travel by car and plane.

Theoretical Foundations

The project uses a conceptual approach recently proposed by one of the project researchers. This framework emphasizes that activities and consumption in everyday life are embedded in the individual, family- and societal time demands and norms. These constrain and structure activity and consumption patterns and therefore shape energy and carbon footprints (see a review in Wiedenhofer et al. 2018). The proposed framework builds on the theoretical foundations of practice theory and socio-technical provisioning systems focused on issues of consumption and everyday life. With this approach, we aim to assess how working and consuming less, living 'slower' and spending more time on activities beneficial to individual and societal wellbeing, could pave the way towards more sustainable, carbon neutral everyday lives (Fig. 1). With these efforts we contribute to larger debates about demand-side approaches to deep decarbonization and absolute reductions of emissions in a post-growth world, which have reached current IPCC assessment efforts.

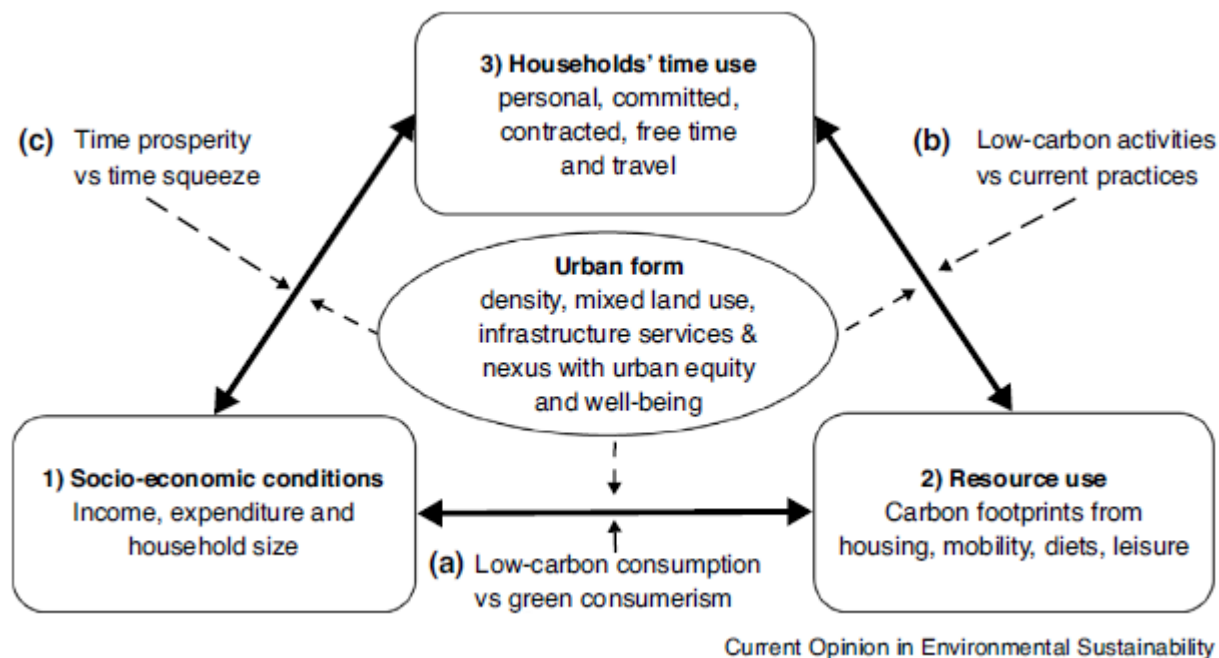


Fig. 1. Conceptual framework linking household's time uses, with their socio-economic conditions, the resulting consumption, and energy/carbon footprints. Broad options to intervene into these relationships are also shown (a-c).

Critically, we conceptualize arrangements on contracted time, working hours and income to strongly structure everyday living, meaning that most other activities need to be organized around these time demands. Effectively, the available infrastructure, services and societal arrangements, for example on work, all influence how households use their time, which goods and services they consume in everyday life, and their subsequent carbon footprints and potential rebound effects. The objective and perceived pressures on individuals to accommodate multiple responsibilities for their families, their work, their social life and themselves (in more popular terms: their work-life balance) has been

described as a time squeeze and is directly linked to concerns about well-being and happiness. In contrast, time prosperity is the perceived adequacy of time availability and responsibilities. These pressures and trade-offs for individual time use in turn shape patterns of consumption and prospects for adopting 'pro-environmental' practices.

Research Design and Methods

Within this project, we will investigate the actual changes in the lives of people who participate in the recently implemented German working time scheme. For this purpose, a multi-methods approach utilizing qualitative and quantitative methods is used to study two main questions that will determine the effectiveness of the policy.

Firstly, we aim to understand why individuals participate in the WTR scheme, taking into account their aspirations, motivations, lifestyles and barriers. For this purpose, we conduct several focus group discussions with scheme participants who chose shorter working hours and utilize an online survey to reach a large number of participants and potentially interested workers, in order to identify their common characteristics and aspirations, as well as their motivations for (or barriers to) joining the scheme. Upon this basis, we determine which aspects of working time reduction are socially attractive, gaining insights on how it could be popularised.

Secondly, we want to know how, by changing everyday lives, WTR influences the mobility patterns, energy consumption and carbon emissions of participating households. Answering this question is not easy. To begin with, we cannot directly observe how WTR changes lifestyles and consumption, mainly because we do not have sufficiently reliable data for both the pre-WTR and post-WTR periods. That would require longitudinal analysis, which is not feasible in this project. Furthermore, even if we have estimated how lifestyles and consumption change, calculating energy impacts is still complex. A large body of studies has shown that direct energy use, e.g. fuels and electricity, only amount to around a third to half of the total energy requirements of household consumption – the remainder occurs indirectly, during the production, distribution and sales of all other goods and services consumed. It is thus necessary to consider energy impacts from the supply chains of those goods and services whose consumption changes as a result of WTR.

To address these concerns, a combination of approaches is necessary. We use both qualitative and quantitative information from the focus groups and the surveys to assess how mobility and other aspects of everyday life change for participants of the WTR scheme. Since energy use and emissions ultimately arise through some type of consumption, we assess the impacts of all these lifestyle changes on different types of consumption. Then we quantify the energy impacts of the changes in consumption in different expenditure categories. For this, we use a state-of-the-art quantification approach called multi-regional input-output analysis (MRIO) that takes into account both direct and indirect energy footprints in estimating the effects of WTR.

Claims to originality

Empirical research on WTR as a solution to environmental and social problems is scarce and limited, while conceptual and theoretical claims about less work, more well-being and lower environmental footprints abound. Therefore, any new evidence on the attractiveness and usefulness of WTR is very important to evaluate the feasibility of scenarios involving a significant reduction of working time. A study that looks at an actual WTR scheme and investigates motivations and energy implications using data collected from a large number of participants is especially relevant. To our knowledge, no studies have previously collected data directly from hundreds of WTR participants.

Better understanding WTR will substantially increase the awareness of demand-side measures through WTR in the climate mitigation community and policy circles. By focusing on the attractiveness of WTR, we will contribute to the vision of a new lifestyle that can be more attractive than the currently

dominant cycle of (more) work and (more) consumption. This means that our messages will be radically different from existing mainstream research and policy advice, aiming at pathways towards high well-being, sustainable and carbon neutral everyday lives. By investigating the attitudes and actions of participants in one of the newest WTR schemes in one of the largest and richest economies of the world, we will gain fresh and current understandings of changing priorities in one of the key sustainability concerns: adequate work, high well-being and low environmental implications. The explicit focus on mobility is also different from previous research. Our research will generate new knowledge on the relative importance of mobility among both motivations and energy implications of WTR. From a communication perspective, this will be very important, especially because of potential rebound effects.

Reference

Wiedenhofer, D., Smetschka, B., Akenji, L., Jalas, M., & Haberl, H. (2018). Household time use, carbon footprints, and urban form: a review of the potential contributions of everyday living to the 1.5°C climate target. *Current Opinion in Environmental Sustainability*, 30, 7–17.
<https://doi.org/10.1016/j.cosust.2018.02.007>

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

Lifestyle

A lifestyle is a composition of daily activities and experiences that give sense and meaning to the life of a person or a group in time and space.

En savoir plus x

Associated Thematics :

Lifestyles

- Aspirations
- Diversity of lifestyles
- Futures
- Leisure & tourism
- Rhythms of everyday life
- Work

Policies

- Time policies
 - Ecological transition
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