

## An Investigation into Teleworking and its Relationships with Gender, Mobility, and Paid-Work-Life Balance

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*Abstract:* This paper addresses gender differences in dealing with teleworking and their effects on everyday mobility by means of a cross-sectional survey. The results show gender-based differences in dealing with teleworking, attitudes to it, and the use of time saved by not commuting. Frequent teleworking is associated with longer commuting times to main offices and accentuates gender differences. Research should address that teleworking is highly interwoven with the gendering of mobility and paid work-life balance.

*Keywords:* Teleworking, mobility, paid work-life balance, new work, gender

### Une analyse du télétravail et de ses liens avec le genre, la mobilité et avec l’équilibre entre la vie professionnelle et la vie privée

*Résumé:* Cet article traite des différences de genre dans le télétravail et ses effets sur la mobilité quotidienne au moyen d’une enquête par questionnaire. Les résultats montrent des différences de genre en ce qui concerne le télétravail, les attitudes et l’utilisation du temps gagné en évitant les trajets domicile-travail. Le télétravail est associé à des temps de trajet plus longs et accentue les différences de genre. La recherche doit aussi considérer que le télétravail est étroitement lié avec les dimensions de genre de la mobilité et de l’équilibre entre travail et vie privée

*Mots-clés:* Télétravail, mobilité, équilibre entre vie professionnelle et vie privée, nouvelles formes de travail, genre

### Eine Untersuchung über flexible Formen der Arbeit und die Zusammenhänge mit Gender, Mobilität und Paid-Work-Life Balance

*Zusammenfassung:* Der Beitrag untersucht geschlechtsspezifische Unterschiede in der Nutzung von Telearbeit und deren Auswirkungen auf die Alltagsmobilität anhand einer Befragung. Die Ergebnisse zeigen geschlechtsspezifische Unterschiede in der Nutzung von Telearbeit, in der Einstellung dazu und in der Nutzung der eingesparten Zeit. Häufige Telearbeit ist mit längeren Pendelzeiten verbunden und verstärkt die Geschlechterunterschiede. Die Forschung sollte berücksichtigen, dass Telearbeit mit geschlechtsspezifischer Mobilität und der Vereinbarkeit von Beruf und Privatleben zusammenhängt.

*Schlüsselwörter:* Telearbeit, Mobilität, Paid-Work-Life Balance, New Work, Gender

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## 1 Introduction

The term “New Work” has been used to describe new ways of working in the global and digital age (Helmold, 2023). Early concepts date back to Bergmann (1990), who emphasized the need for meaningful paid work. One aspect of the new work concept is teleworking (Niebuhr et al., 2022). Teleworking is understood as paid work activities that are done outside the traditional workplace boundaries of an employer's office or production space (Morganson et al., 2010). Possible workplace locations that are covered by the term “teleworking” are the home, on the move, and/or third locations like a coworking space or cafés (Ravalet & Rérat, 2019, p. 584). In general, digitalization and the expansion of knowledge-based activities (Krasilnikova & Levin-Keitel, 2022) have made employment more spatially and temporally flexible (Ravalet & Rérat, 2019) and enable a more self-determined paid work organization (Niebuhr et al., 2022).

Telework is widely practiced in Switzerland because the Swiss labour market is characterized by a high degree of flexibility in the form of self-determined arrangements of daily and annual worktimes, and a spatial flexibility provided by high participations in teleworking (Wöhner, 2022). Moreover, the Covid-19 pandemic boosted the widespread adaption of teleworking (Edelmann et al., 2021; Fischer et al., 2020; Moser et al., 2021). These dynamics accelerate the significance of examining the impact of teleworking on gender dynamics in academic debates (Steinmetz et al., 2022).

There is a complex relationship between gender, teleworking, everyday mobility practices, and paid work-life balance (WLB). Teleworking changes the allocation of time saved by not commuting. Saved time can be used for other private activities such as social interactions, housework, or care work (Pabilonia & Vernon, 2022). Thus, teleworking is seen as a way of improving workers' WLB (Haddad et al., 2009; Mokhtarian & Salomon, 1997; Ravalet & Rérat, 2019). The WLB references the ability to be well in different aspects of life and to feel well about the connection between one's paid work and one's non-work life (Brough et al., 2020; Como & Domene, 2023). Teleworkers report their ability to coordinate their paid work better with their private needs as a main reason for teleworking (Sullivan & Lewis, 2001; Vilhelmson & Thulin, 2016). Other benefits of teleworking are autonomy, efficiency, performance, and productivity (Vayre et al., 2022).

Some empirical studies have examined the influence of teleworking in general on WLB with mixed results (Vayre et al., 2022; Zhang et al., 2020). On the negative side, telework may blur the boundaries between paid work and private life and increasingly extend into free time, with teleworkers working outside regular working hours (Thulin et al., 2019). The effects depend on the employee's circumstances (Como & Domene, 2023). Individuals play multiple roles simultaneously in their

daily lives, which can lead to conflicts between paid work and private life or family relations (Sirgy & Lee, 2016; Zhang et al., 2020). This sort of conflict is especially significant for women when they take on a larger share of household-related, unpaid work (Best & Lanzendorf, 2005).

Within this stream of literature, gendered perspectives on the triangle of teleworking, mobility, and WLB have so far been under-researched, notably in Switzerland. Against this background, we ask the following research questions: How is teleworking applied and interwoven into the various spheres of life from a gender perspective (e.g. use of time saved, commuting)? What differences are apparent in the frequency of teleworking, the reasons why, or the advantages and challenges of teleworking by gender? The study is based on an empirical investigation using a quantitative survey carried out with city administration's employees in Switzerland. We analyse gender differences in the use of telework, in attitudes towards telework, and in the use of the time saved by not commuting.

The remainder of the paper provides an overview of the state of research and the literature in the next section. Section 3 outlines the study background, and the methodology used, namely the cross-sectional survey, while section 4 presents the key results. Section 5 discusses and summarizes the overall findings considering the research question and reflects upon their implications for further research.

## 2 Theoretical Considerations and Literature

### 2.1 Gender Perspectives and Space-Time Geography

First academic conceptions made a distinction between the biological classification “sex” and socially constructed forms of “gender”, which are reproduced through social interactions and practices. However, such simplistic binary categories became more and more obsolete in recent years. According to Richardson (2022) the definition of sex is contextual (“sex contextualism”). In this understanding, “sex” may not be seen as a fixed or universal attribute, rather as a variable that should be pragmatically defined based on the needs and conditions of a (empirical) study (Richardson, 2022).

From our perspective, practice theory is useful to understand gender as a context-dependent concept. Relying on West & Zimmermann (1987) gender is defined by psychological, cultural, and social attributions and constituted through interactions (“doing gender”). Based on everyday practices, society directs expectations and roles towards individuals. Gender role is used to describe these culturally and socially influenced expectations of the behaviour and characteristics of people (Eagly, 1987). One aspect is the gender-specific division of paid work and family responsibilities, including e.g. the prioritization of the breadwinner role or women's

participation in paid employment (Davis & Greenstein, 2009). These practices can result in contradictory and incompatible expectations and role conflicts that cause stress and require management by the individual (Biddle, 1986). Particularly in the context of teleworking, when the question arises as to how telework affects gender roles. To learn from this, we try to analyse gender in the context of their associated roles. These roles are operationalized in a highly simplified way, following Pape et al. (2024), by using certain categories in survey data (e.g. gender, parenthood).

In order to conceptualize the gender difference in practices, the space-time geography according to Hägerstrand (1970) can be used. Space-time geography defines an individual's activity space as limited by three constraints: capability, coupling, and authority (Hägerstrand, 1970). Within this spatial radius people can move for daily activities, limited by their available time and access to resources ("capability constraints"). The "coupling constraints" relate to interdependence, the demands of others, and resources within a household (Hägerstrand, 1970). These two constraints define people's activity spaces based on their resources and roles in the household and society, as shown in different commuting distances or allocations of time (Gil Solá, 2016). Finally, the "authority constraints" include rules about who is allowed to do what, e.g. legal rules or in relation to the built environment and accessibility given by the transportation infrastructure (Hägerstrand, 1970).

## 2.2 Teleworking, WLB, and Gender

There are many theories interpreting the relationship between paid work and (family) life (Zhang et al., 2020). The role theory posits that individuals must fulfil different tasks and expectations contingent on their position and status (Martin & Wilson, 2005). Additionally, roles may emerge from gender or parenthood. In everyday life, individuals assume a multitude of roles, including those of employee, parent, or partner. The pursuit of these disparate roles may be in conflict with one another (Collatz & Gudat, 2011). Therefore, paid workers have certain resources of time (capability constraints) at their disposal and have different roles in paid work and (family) life (Frone, 2003), which links to coupling constraints according to Hägerstrand (1970).

The concept of WLB addresses the division of employees' resources of time and energy between paid work and private life, with a particular emphasis on the necessity for achieving an appropriate equilibrium (Collatz & Gudat, 2011). The term "work" is typically reserved for remunerated activities (Ransome, 2007, p. 377). "Life" is used to refer to all activities that occur outside the realm of formal paid employment (Ransome, 2007, p. 377). Therefore, less time spent on paid work may result to more time for "life" and non-work tasks (Kurowska, 2020). The dimension of "life" encompasses a range of factors, including partnerships, children, activities, and personal values (Collatz & Gudat, 2011). Other aspects, such as care responsibili-

ties, housework, or voluntary work also belong to “life” (Collatz & Gudat, 2011), in contrast to other studies in which care work is explicitly included in the work dimension (Kurowska. 2020; Ransome, 2007). We define “paid work-life balance” as the distinction between paid work and private life, acknowledging that care work and housework are frequently also unpaid labour. Teleworkers may attempt to align their paid work and familial lives in accordance with their gender and familial roles (Sullivan & Lewis, 2001).

In Switzerland, the average time spent on paid work, housework, and care work in the year 2021 is practically the same for women and men, at 57 hours per week, and for parents at around 75 hours (mothers 75, fathers 74) (BFS, 2021, p. 35–37). The division of labour between gender is evident in the division between paid work and housework and care work. Woman and especially mothers are more frequently engaged in part-time employment and, assuming a greater burden of housework and childcare (BFS, 2021).

WLB is often discussed in the context of teleworking (e.g. Como & Domene 2023; Zhang et al. 2020). Improving the WLB has been cited as one of the most important drivers of teleworking (Aguilera et al., 2016; Haddad et al., 2009; Mokhtarian & Salomon, 1997). The actual results are not clear whether teleworking affects the WLB positively or negatively (e.g. Anderson et al., 2015; Beckel & Fisher, 2022; Song & Gao, 2020). Teleworking provides more flexible paid working arrangements, which benefits the WLB and reduces conflicts (Allen et al., 2015). But teleworking may also blur the spatial boundaries between paid work and home and therefore potentially increases paid work-family conflicts (Mann & Holdsworth, 2003; Russell et al., 2009). During the Covid-19 pandemic, achieving a satisfactory WLB was challenging and the potential for work-life conflicts was particularly high given the necessity of childcare and teleworking simultaneously (Como et al., 2021). Additionally, there is a discourse on the influence of the Covid-19 pandemic on the distribution of household and care work between heterosexual couples, whereas some scholars propose a convergence, while others suggest a divergence (Steinmetz et al., 2022).

Reichelt et al. (2021) show that the response to unemployment differed between genders. For example, women tended to be more affected to fall back into traditional gender roles (McPhail et al., 2024; Reichelt et al., 2021). Women tended to revert to more traditional gender role attitudes and responsibilities after being released, taking on a greater share of household-related work and care. Conversely, when the father becomes unemployed (and the mother remains equally employed), men tend to express more egalitarian gender role attitudes. This led to new gender inequalities in the case of crisis, such as a pandemic.

The effects on WLB can also be very individual, depending on one’s own personality or situation (e.g. parenthood; Como & Domene, 2023). Golden et al.

(2006) examined the extent to which teleworking impacts on paid work to produce family conflicts, including conflicts over paid work. Therefore, the more teleworking is done, the less likely one is to experience office-based interruptions and strain, leaving more time and emotional energy for family activities, and reducing the extent to which paid work interferes with the family. However, trying to balance paid work and the family on teleworking days increases the likelihood of the family interfering with paid work (Golden et al., 2006). Vayre et al. (2022) demonstrate the adverse consequences of teleworking. As the boundaries between paid work and personal life become increasingly indistinct, teleworkers tend to experience elevated levels of stress, increased work demands, and a greater prevalence of paid work-family conflicts.

### 2.3 Teleworking, Mobility, and Gender

In the context of teleworking research, aspects of mobility such as commuting distances or duration and the time allocation are central. Teleworkers commute longer distances in Switzerland than non-teleworkers (Balthasar et al., 2024; Ravalet & R  rat, 2019). Gender-specific results for teleworkers are unknown thus far. In general, studies have uncovered gender differences in travel time and/or distance from paid work (Parnell et al., 2022; Schwanen et al., 2002), travel patterns, and the links between trips and the reasons for taking them (Rosenbloom, 2004). In particular, women have shorter and more complex travel patterns despite the greater number of trips (Kawgan-Kagan, 2015; Scheiner, 2016; Sovacool et al., 2018), which are partly due to gender roles and partly to the fact that women take on more care work (Best & Lanzendorf, 2005; Garc  a-Mainar et al., 2011; Konrad, 2016).

Key events in the life course, such as parenthood, have different effects on the activity patterns of men and women (Scheiner, 2016). Furthermore, flexible working hours tend to result in women being more likely to escort children to school (Motte-Baumvol et al., 2017). Teleworking changes the allocation of time by eliminating some commuting trips. It is often argued that the time saved can be used for other activities (Hostettler Macias et al., 2022; Pablonia & Vernon, 2022: 6). Trips on teleworking days are more likely to involve transporting children to school or additional activities such as shopping or leisure (Ravalet & R  rat, 2019, p. 594). Vovsha et al. (2004) show that travel patterns and the choice of household activities depend on the availability of time. Teleworking makes more time available, and consequently more activities can be undertaken.

So far, however, no explicit analysis has incorporated mobility, teleworking, and individual WLB into a holistic approach that includes a gender perspective. Since research on this topic is rare in Switzerland, this work attempts to shed light on those interdependencies based on the following own empirical study and findings.

### 3 Study Background and Methodology

#### 3.1 Study Background

The study is based on an empirical investigation of the administration of Schaffhausen, a Swiss city of 37 000 inhabitants. Public administration is relevant as an empirical basis because the implementation of teleworking had been rather slow in comparison to other economic sectors. The Covid-19 pandemic boosted teleworking even in public administrations (Edelmann et al., 2021; Fischer et al., 2020; Moser et al., 2021). Thus, many employees of Schaffhausen city administration found themselves regularly working from home for the first time during the Covid-19 pandemic.

A standardized questionnaire was developed and discussed with the city administration. They wrote directly to 516 employees inviting them to participate in the survey. This corresponds to over a third of all employees. The employees who were contacted had an official personal mailing address of the city administration and were eligible for teleworking in view of their (partial) office activity. The survey ran between September 2022 and November 2022. During this time, the city administration emailed two reminders to its employees. During this period 278 people fully completed the questionnaire, resulting in a response rate of 54 percent.

For data-preparation purposes, the responses from the Unipark survey tool are imported into the SPSS statistical tool. Data preparation include coding the data (e.g. analysis of missing values), a plausibility check on the data, and labelling the variables and their characteristics. The analytical framework focuses on a differentiated analysis regarding female and male and a further differentiation between those with or without children. The empirical analysis of this study is based on frequency tables, cross-tabulations, mean values, and share comparisons. Bivariate statistical analysis is used to detect for significant differences within the groups.

#### 3.2 Description of the Sample

The survey involved 61 percent women and 39 percent men; a third option for gender was provided but not selected (Table 1). The average age of participants was 44 years, with female employees averaging 43 years, male employees 46 years. 40 percent of the surveyed employees had a university degree, 51 percent a professional apprenticeship or a higher vocational school qualification. The majority of respondents were employees without a management function (64 percent), though 36 percent were group or team leaders. On average, female employees have a 69-percentage workload (approx. 29 hours), male employees 84 percentage (approx. 35 hours). 46 percent of respondents had direct customer contact. 55 percent

Table 1                    General Description of the Sample

Variable	Categories	n	Shares/Means
Gender	Female	170	61 %
	Male	107	39 %
	Diverse	0	0 %
Age (Categories)	Younger than 30 years	36	13 %
	30–39 years	62	22 %
	40–49 years	65	23 %
	50 years and older	115	41 %
Average age	Male		46
	Female		43
	Total		44
Education	Compulsory schooling	7	3 %
	Vocational apprenticeship and baccalaureate, higher vocational school (federal diploma)	158	57 %
	University degree	110	40 %
Professional position	Employee without management function	179	64 %
	Employee with management function	99	36 %
Job percentage	0–20 percent	2	1 %
	21–40 percent	14	5 %
	41–60 percent	50	18 %
	61–80 percent	61	22 %
	81–100 percent	148	53 %
Average job percentage	Male		84 %
	Female		69 %
	Total		75 %
Direct customer contact	Yes	129	46 %
	Partial	101	36 %
	No	48	17 %
Household	One-person household	37	13 %
	Couple household	100	36 %
	Family household (couple parents, single parents)	123	45 %
	Others (e.g. shared apartment, respondents who live with their parents)	16	6 %
	Persons with child(ren)	123	45 %
Analysing categories	Female without children	96	35 %
	Female with child(ren)	74	27 %
	Male without children	58	21 %
	Male with child(ren)	49	18 %

Source: own data and calculations, n = 278.

Table 2 Gender Perspective on Teleworking

Children	Total	Male		Female		Test-Statistic
		No	Yes	No	Yes	
How often do you do teleworking?						
1 Never	27%	34%	24%	23%	27%	
2 Vary rarely (2-3 per year)	20%	24%	18%	21%	18%	
3 Rarely or irregularly (approx. 1 per month)	14%	14%	18%	11%	16%	
4 Often (about 3-4 times per month)	8%	10%	6%	8%	7%	
5 Regularly (at least 1 time per week)	22%	12%	29%	26%	22%	
6 Very often (several times per week)	8%	5%	4%	10%	11%	
Average (1-6) (ANOVA-Test, n=142)	3.0	2.6	3.1	3.3	3.1	0.12
How do you generally arrange teleworking in terms of working time and days? (ANOVA-Test, n = 142)						
The same working days	92%	86%	82%	98%	93%	0.08
The same paid labour time	85%	91%	79%	81%	89%	0.47
Attitudes towards reason for teleworking (1-4 Likert scale; 1 does not apply, 2 does not apply very much, 3 strongly agree, 4 fully agree; ANOVA-Test; n = 124)						
Efficiency aspects						
I can efficiently work on pending issues in between.	3.5	3.2	3.5	3.7	3.7	0.07
I can do tasks that I normally can't do as well in the office.	3.1	2.5	3.2	3.4	2.9	0.02
I appreciate the privacy there.	3.5	3.3	3.4	3.7	3.5	0.18
Autonomy aspects						
I can organize my work there according to my needs.	3.0	2.7	3.1	3.0	3.2	0.28
I appreciate the autonomy in time and place.	3.4	3.2	3.2	3.5	3.5	0.39
I can do the work independently of place.	3.3	3.1	3.7	3.2	3.1	0.17

Continuation of Table 2 on the next page.

Continuation of Table 2.

Children	Total	Male		Female		Test-Statistic	
		No	Yes	No	Yes		
Attitudes towards reason for teleworking (1-4 Likert scale; 1 does not apply, 2 does not apply very much, 3 strongly agree, 4 fully agree; ANOVA-Test; n = 124)							
Coordination of paid work and life aspects							
Teleworking saves time, since travel time is eliminated.	3.4	3.3	3.4	3.6	3.4	0.62	
I am more motivated at work.	2.4	1.7	2.6	2.5	2.3	0.09	.
I can better coordinate paid work and private life.	3.0	2.6	2.8	3.0	3.3	0.11	
Teamwork and collaboration aspects							
My colleagues or my team expect teleworking.	1.1	1.5	1.1	1.1	1.0	0.00	**
I do telework out of habit.	1.4	1.4	1.7	1.3	1.3	0.07	.
Challenges in dealing with teleworking (1-4 Likert scale, 1 very low, 2 low, 3 rather high, 4 very high; ANOVA-Test; n = 146)							
Distraction	1.9	2.3	2.2	1.7	1.7	0.03	*
Self-discipline	1.7	2.4	1.9	1.5	1.5	0.00	**
Motivation to paid work	1.6	2.0	1.5	1.4	1.6	0.02	*
Separation of paid working time and free time	2.0	2.3	2.2	1.8	1.9	0.29	
Paid work planning and organization	1.7	1.9	1.7	1.6	1.6	0.59	
Dealing with digital tools	1.7	1.5	2.1	1.7	1.7	0.12	
Cooperation and exchange within the team	2.5	2.7	2.9	2.5	2.2	0.13	
Cooperation with the supervisor	2.0	2.0	2.3	1.9	1.8	0.22	

Source: own data and calculations, Bivariate test-statistics for p-value: ANOVA-Test, critical values: \*\* p < .001; \* p < .05; . p < .10.

of employees lived in a household without children (single or couple household, other household types), and 45 percent had children. The sample is representative of the target population and can be generalized to comparable work fields. In line with Richardson (2022) “sex” is understood as context-dependent concept within an empirical study. The categories, female and male with and without children, are important for the analysis in context of mobility and WLB. These categories are

distributed as follows and can be analysed within the gender discourse: 35 percent are women without children and 27 percent with children, and 21 percent are men without children and 18 percent with children.

## 4 Results

### 4.1 Gender Perspective on Teleworking

For many employees within the city administration, teleworking is a new way of organizing their work in comparison to other work domains. 74 percent of the supervisor's report that their employees did not regularly telework before the Covid-19 pandemic.

Table 2 shows that overall, 73 percent of employees practice teleworking. 22 percent of employees telework regularly, i. e. at least once a week, 8 percent very often, i. e. several times per week. The frequency of teleworking is most pronounced for women and men without children (average 3.3 vs. 2.6); if there are children, there is no difference between female and male employees ( $\emptyset$  3.1). However, based on an ANOVA analysis, these differences are statistically not significant on a p-level smaller than 10 percent ( $p=0.69$ ).

Table 2 shows also that teleworkers generally work at home on the same days as in the main office (92 percent), and there are statistically significant differences between the groups on a p-level smaller than 10 percent ( $p=0.08$ ). They have more time flexibility, as 85 percent of the employees work at the same paid labour time. There is a descriptive difference among gender and parenthood, more mothers work at the same paid labour time (89 percent) than childless women (81 percent), while conversely less fathers work at same paid labour times (79 percent) than childless man (91 percent). However, these differences are statistically not significant, which may be due to the size of the sample.

The reasons for teleworking are the ability to work more efficiently on pending issues in between (average 3.5 on Likert scale ranging from 1 to 4), the privacy while teleworking ( $\emptyset$  3.5) greater independence in terms of time and location ( $\emptyset$  3.4), and the time saved by eliminating travel time ( $\emptyset$  3.4). Statistically significant differences between the groups based on ANOVA tests regarding the scale averages are seen for efficiency, work motivation, teamwork, and collaboration: female teleworkers consider efficiency ( $\emptyset$  3.7) and the lack of disruption ( $\emptyset$  3.4 childless woman /  $\emptyset$  2.9 mothers) to be more important. The reasons for better coordination of paid working and private lives ( $\emptyset$  3.0/3.3) and organization of paid work according to own needs ( $\emptyset$  3.0/3.2) are more important for female teleworkers (see Table 2). For male teleworkers, the ability to work from any location is an important reason for teleworking ( $\emptyset$  3.1/3.7). In the case of paid work motivation fathers state that

they are less motivated ( $\emptyset$  1.7) than females ( $\emptyset$  2.5/2.3). This difference is significant at the p-level smaller than 10 percent.

The results show in general that, in the specific context of the administration, teleworking is not done because of the expectations of others ( $\emptyset$  1.1) or out of habit ( $\emptyset$  1.4). Group differences between the four categories are significant on a p-level smaller than 10 percent ( $p=0.00$ ;  $p=0.07$ ).

There are descriptive differences between gender which may give rise to gender-specific reasons why an individual might choose to telework. It is interesting to note that the differences between childless female and mother teleworkers tend to be smaller than those between male teleworkers. Female teleworkers consider household-related and family reasons to be more important, such as better coordination of paid work and private lives and paid work organization according to own needs. For male teleworkers, the important reasons are more work-related such as working efficiently and from any location.

The challenges of teleworking are collaboration and interaction within the team ( $\emptyset$  2.5). Male teleworkers tend to have a greater challenge than female teleworkers. In general, the individual challenges for the teleworkers are relatively low. Statistically significant differences between the groups based on ANOVA tests regarding the scale averages are seen for distraction, self-discipline, and motivation to paid work at the p-level smaller than 5 percent. Although teleworking blurs spatial boundaries and thus increases the potential for paid work-family conflicts (Mann & Holdsworth, 2003; Russell et al., 2009), this seems to be of little concern to teleworkers. However, there are some company-specific challenges, such as teamwork ( $\emptyset$  2.5).

#### 4.2 Teleworking, Mobility, and Gender

Table 3 shows the commuting times by gender and teleworking. The average daily commute (round trip) is approximately 30 minutes, with female employees traveling for a shorter duration, on average at 29 minutes and male employees traveling slightly longer at 31 minutes (no statistically significant difference). This is slightly higher than the Swiss average of 26 minutes (BFS & ARE, 2023, p. 47).

The analysis of the duration of the commute, shown in Table 3, taking parenthood into account, reveals a descriptive gender difference, although it is not statistically significant. A differentiation by gender shows that mothers commute shorter durations than fathers. It can also be observed that fathers accept longer commutes than non-fathers, although the effect is reversed for women.

When differentiating between employees who frequently teleworking and those who never or rarely telework, frequent teleworkers commute an average of 35 minutes per day, with gender differences becoming more evident and statistically significant on the p-level smaller than 5 percent. This may indicate that teleworkers are accepting longer commutes because they commute less often. The correlation shows a small

Table 3 Teleworking, Mobility, and Gender

	Total		Male		Female		Test-Statistic	
How long does it usually take you to get there and back from your home to your main place of work?								
0–15 minutes	31%		29%		33%			
16–30 minutes	31%		36%		28%			
31–60 minutes	30%		25%		34%			
61+ minutes	8%		10%		6%			
<hr/>								
Average commuting time (in minutes)	30		31		29		0.60	
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Commuting time by parenthood (having children no/yes)	No	Yes	No	Yes	No	Yes		
	30	30	28	35	31	27	0.35	
<hr/>								
Commuting time by teleworking (no/yes, in minutes)	No	Yes	No	Yes	No	Yes		
	27	35	27	39	26	33	0.02	
							*	

Source: own data and calculations, n = 277; Bivariate test-statistics for p-value: ANOVA-Test, critical values: \*\* p < .001; \* p < .05; . p < .10.

positive relationship between the frequency of teleworking and commute time which is significant on the p-level smaller than 5 percent (Pearson  $r = .2$ ).

The analysis of commute times is crucial for understanding the impact of the allocation of time. The duration of the commute serves to quantify the amount of time saved.

4.3 Teleworking, WLB, and Gender

The next step is to analyse what employees do in the time saved from not commuting and then their attitude towards teleworking as an indication of whether teleworking is beneficial. Employees were asked in an open question what they do in the time saved by teleworking. 93 respondents (62 female, 31 male) named an average of 1.6 activities, in total 143 responses. Eleven respondents answered that their commute is too short to save time, of whom four persons stated that commuting is useful, e. g., in working on the way or for separating paid work and private life. This refers to the boundary theory, as commuting helps to separate (Ashforth et al., 2000).

Three analytical clusters were defined: paid work-related time use, coordination of paid work and life, and WLB (see Table 4). Most of the time saved is used to coordinate paid work and life tasks, like housework (15 percent of responses), social interactions (11 percent), and leisure time (15 percent). Other relate to work-related tasks such as more paid work (14 percent) and to WLB tasks like sport (9 percent)

Table 4                      Use of Saved Time

	Total	Male	Female
No saved time	11 (8%)	4 (8%)	7 (7%)
Commuting is beneficial	4	2	2
Paid work-related	31 (22%)	10 (20%)	21 (22%)
More work	20	6	14
Earlier work, finished	7	2	5
Flexible work	1	1	0
Education (Uni, etc.)	3	1	2
Coordination of paid work and life	68 (48%)	23 (47%)	45 (48%)
Private affairs, medical visits, etc.	8	3	5
Household-related tasks (childcare, household work, shopping)	22	2	20
Social interactions, friends, family	16	8	8
General leisure, hobbies	22	10	12
Work-life balance	33 (23%)	12 (24%)	21 (22%)
Sport	12	6	7
Sleeping	4	1	3
Work-life-balance	4	2	2
Personal care	12	3	9
Total	143 (100%)	49 (100%)	94 (100%)

Source: own calculations based on coded quotes in an open question. 93 of the respondents (62 female, 31 male) named an average of 1.6 activities, in total 143 responses.

or personal care (8 percent). Male teleworkers use the time they save differently from female teleworkers. Men are more likely to use it for socializing (16 percent), leisure activities (20 percent), and sport (12 percent). Female teleworkers are more likely doing household-related work (21 percent). This serves to illustrate the existing imbalance in the distribution of labour between gender. The results on time use are consistent with the reasons for teleworking (see Table 2). For male teleworkers, efficiency and spatial and time independence are important reasons for teleworking, as they spend more time for socializing or sport. For female teleworkers, their greater independence in time and location, the savings of time, and the better coordination of paid work and private life are particularly important. These reasons are consistent in that they use the time saved for household-related

Table 5 Attitudes Towards Teleworking and Gender

Children	Total	Male		Female		Test-Statistic
		No	Yes	No	Yes	
What is your attitude towards teleworking?						
1 Very sceptical	4%	10%	9%	1%	1%	
2 Rather sceptical	10%	10%	7%	10%	11%	
3 Rather positive	38%	38%	35%	48%	28%	
4 Very positive	47%	41%	50%	41%	59%	
Average (1–4)	3.3	3.1	3.3	3.3	3.5	0.10
How would you like to work in the future?						
I'd like to continue teleworking regularly.	35%	24%	33%	34%	47%	
I'd like to telework primarily for special tasks.	33%	36%	29%	35%	30%	
I'd like to work mainly in the main office.	17%	24%	18%	18%	11%	
Teleworking is not possible in my function or work tasks.	9%	14%	12%	6%	5%	
Others	6%	2%	8%	6%	7%	
How relevant is the possibility for you to be able to telework in a next job? (1–4 Likert scale)						
1 Absolutely important	20%	10%	22%	22%	23%	
2 Rather important	41%	43%	27%	42%	49%	
3 Rather not important	26%	24%	33%	26%	23%	
4 Not important	13%	22%	18%	9%	5%	
Average (1–4)	2.3	2.6	2.5	2.2	2.1	0.01
						*

Source: own data and calculations, n=274–276; Bivariate test-statistics for p-value: ANOVA-Test, critical values: \*  $p < .05$ ; .  $p < .10$ .

work. However, it is not possible to determine whether activities are shifted from another day to the teleworking days or whether these are additional activities.

The attitudes toward teleworking and the importance of teleworking for future jobs are indicators that teleworking is beneficial for WLB. Attitudes toward teleworking are generally very positive ( $\bar{x}$  3.3, see Table 5). However, women have more positive attitudes than men ( $\bar{x}$  3.4 resp. 3.2). Furthermore, employees with children are significantly more positive towards teleworking than those without ( $\bar{x}$  3.4 resp. 3.2). Mothers have the most positive attitudes ( $\bar{x}$  3.5), while childless men are more sceptical about teleworking ( $\bar{x}$  3.1). Employees want to be able to telework regularly (35 percent), or at least when needed or for special tasks (33 percent). The desire for teleworking is greater among female than male employees and increases

with parenthood. Employees also consider the possibility of teleworking to be an important criterion when looking for a new job (61 percent). These statistically significant results indicate that teleworking is beneficial to female employees and those with children for coordinating paid work and family.

In summary, the reasons for and advantages of teleworking are in line with other studies (Moser et al., 2021; Sullivan & Lewis, 2001; Vayre et al., 2022). Limitations must be considered for company-specific factors, as gender differences appear constant at the company level. The frequency of teleworking is influenced by the company and the prevailing work culture (Krasilnikova & Levin-Keitel, 2022). Public administrations often differ from private companies (Boyne, 2002). The rise of teleworking in public administrations was rather slow until the Covid-19 pandemic (Edelmann et al., 2021; Fischer et al., 2020; Moser et al., 2021).

## 5 Discussion and Research Outlook

The rise of New Work such as teleworking have stimulated debates over its impact on WLB and on commuting. Since research on this topic is rare in Switzerland, this work attempts to shed light on those interdependencies using the study of a city administration.

It is assumed that changes in commuting may influence WLB. Our study shows that teleworker commute longer than non-teleworkers, also male teleworkers commute longer than female teleworkers. Commuting duration defines the extent to which teleworkers save time by not commuting, and thus teleworking can facilitate the coordination between paid work and life. The length of the commute can have a negative impact on WLB, with long commutes often perceived as an obstacle for WLB (BFS, 2021). The results show that women and teleworkers with children consider avoiding commuting to be more important than men and teleworkers without children.

In summary our results show statistically significant gender differences in dealing with teleworking. Female teleworkers consider efficiency and the lack of disruption to be more important while teleworking. Challenges such as distraction, self-discipline, or motivation are greater for male teleworkers. Attitudes towards teleworking and the importance of teleworking for future jobs are viewed positively, especially by women and employees with children. Consequently, it can be concluded that teleworking is beneficial for WLB.

Regarding the gender perspective, the aspect of coordination of paid work with (family) life is an important reason for teleworking, with women also using the time saved by teleworking for household-related tasks. However, it can be stated that teleworkers work similar hours to those on regular workplace. The literature shows that teleworking also has an impact on time allocation during the day. Teleworking results in a shift from paid work activities to unpaid work and leisure activities dur-

ing core working hours (Giménez-Nadal et al., 2020). Using time diaries, Pabilonia and Vernon (2022) found differences in paid work patterns by gender and parental status: e.g. mothers spend more time working in the presence of children than fathers do and spend more time on household production activities and sleeping. Female teleworkers tend to combine paid work and family more frequently, as shown in this study, as they use saved time for household-related work, while male teleworkers separate paid work more frequently from family time. However, it is not possible to draw conclusions from this study about the total amount or the distribution of housework and care responsibilities within the household. The distribution of housework and parenting is an essential issue to overcome the predominance of traditional role expectations among female teleworkers and their partners and to ensure that gender inequalities are not reproduced and not reinforced (Sullivan & Lewis, 2001). Further research is required to examine this issue in greater detail in conjunction with mobility behaviour.

It is not only gender that mainly explains the differences, but socially assigned roles and their associated activities (Rosenbloom, 2004). Due to the influence of socially constructed gender roles, we controlled the variables regarding parenthood in our bivariate statistic. The results often show gender-specific differences, particularly depending on parental status. The differences in dealing with teleworking between fathers and mothers become smaller, with the greatest differences being observed between childless men and mothers. Effects may also depend on the spatial context, e.g. residential location (Scheiner, 2016, p. 640) as an indication of the partnership and family model people live by (Ettema & van der Lippe, 2009). It may therefore be useful to consider the impact of teleworking and mobility from a gender perspective by taking lifestyles into account.

The impact of teleworking on mobility patterns and individual WLB requires further research. Ettema and van der Lippe (2009, p. 114) point out that little is known about how household members allocate tasks and activities over longer periods of time. The present study is also unable to ascertain whether the activities undertaken during the time saved by not commuting were carried out over from another day or whether they constituted additional activities. Daily individual activity patterns are allocated in the household (Ettema & van der Lippe, 2009). Moreover, longer periods of analysis during the life course, are useful as daily activity patterns are part of weekly or monthly patterns. This allows for an analysis of mandatory and non-mandatory activities (Viana Cerqueira & Motte-Baumvol, 2022) and a holistic view of mobility with different purposes like care work, household-related tasks, and leisure time (Parnell et al., 2022). Activity-travel diaries recording mobility and individual time allocation can be useful for this purpose.

In summary, various recent debates are more critical towards teleworking, and some companies go back to traditional forms of paid work in physical co-presence at a regular working place. The decision to bring all employees back into the office should be carefully discussed based on our empirical findings, considering the ben-

efits of different working locations in the light of the needs of employees. A good mix of possibilities for work locations could serve as allow for the utilization of the benefits of different working models (Z'Rotz et al., 2021), that are in line with the needs of various gender practices.

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## 7 References

- Aguilera, A., Lethiais, V., Rallet, A., & Proulhac, L. (2016). Home-based telework in France: Characteristics, barriers and perspectives. *Transportation Research Part a: Policy and Practice*, 92, 1–11. <https://doi.org/10.1016/j.tra.2016.06.021>
- Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? assessing the status of our scientific findings. *Psychological Science in the Public Interest*, 16(2), 40–68. <https://doi.org/10.1177/1529100615593273>
- Anderson, A. J., Kaplan, S. A., & Vega, R. P. (2015). The impact of telework on emotional experience: When, and for whom, does telework improve daily affective well-being? *European Journal of Work and Organizational Psychology*, 24(6), 882–897. <https://doi.org/10.1080/1359432X.2014.966086>
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a Day's Work: Boundaries and micro role transitions. *Academy of Management Review*, 25(3), 472–491. <https://doi.org/10.5465/amr.2000.3363315>
- Balthasar, N., Ohnmacht, T., Z'Rotz, J., Hostettler Macias, L., & R  rat, P. (2024). The effects of teleworking on CO2 emissions from commuting: Baselining key data to investigate transformative change in living labs. *Consumption and Society*, 1–23. <https://doi.org/10.1332/27528499Y2024D000000019>
- Beckel, J. L. O., & Fisher, G. G. (2022). Telework and worker health and well-being: A review and recommendations for research and practice. *International Journal of Environmental Research and Public Health*, 19(7), 3879. <https://doi.org/10.3390/ijerph19073879>
- Bergmann, F. (1990). Neue Arbeit (New Work). Das Konzept und seine Umsetzung in der Praxis. In W. Fricke (Ed.), *Jahrbuch Arbeit und Technik* (pp. 71–80). Dietz.
- Best, H., & Lanzendorf, M. (2005). Division of labour and gender differences in metropolitan car use. *Journal of Transport Geography*, 13(2), 109–121. <https://doi.org/10.1016/j.jtrangeo.2004.04.007>
- Biddle, B. J. (1986). Recent developments in role theory. *Annual Review of Sociology*, 12(1), 67–92. <https://doi.org/10.1146/annurev.so.12.080186.000435>
- Boyne, G. A. (2002). Public and private management: What's the difference? *Journal of Management Studies*, 39(1), 97–122. <https://doi.org/10.1111/1467-6486.00284>
- Brough, P., Timms, C., Chan, X. W., Hawkes, A., & Rasmussen, L. (2020). Work–life balance: Definitions, causes, and consequences. In T. Theorell (Ed.), *Handbook of Socioeconomic Determinants of Occupational Health* (pp. 473–487). Springer International Publishing. [https://doi.org/10.1007/978-3-030-31438-5\\_20](https://doi.org/10.1007/978-3-030-31438-5_20)

- Bundesamt für Statistik BFS. (2021). *Familien in der Schweiz. Statistischer Bericht 2021*. <https://dam-api.bfs.admin.ch/hub/api/dam/assets/17084546/master>
- Bundesamt für Statistik BFS, & Bundesamt für Raumentwicklung ARE. (2023). *Mobilitätsverhalten der Bevölkerung: Ergebnisse des Mikrozensus Mobilität und Verkehr 2021*. <https://dam-api.bfs.admin.ch/hub/api/dam/assets/24165261/master>
- Collatz, A., & Gudat, K. (2011). *Work-Life-Balance*. Hogrefe.
- Como, R., & Domene, J. (2023). An overview of work-life wellness for teleworking couples. *Canadian Journal of Career Development*, 22(1), 63–68. <https://doi.org/10.53379/cjcd.2023.360>
- Como, R., Hambley, L., & Domene, J. (2021). An exploration of work-life wellness and remote work during and beyond COVID-19. *Canadian Journal of Career Development*, 20(1), 46–56.
- Davis, S. N., & Greenstein, T. N. (2009). Gender ideology: Components, predictors, and consequences. *Annual Review of Sociology*, 35(1), 87–105. <https://doi.org/10.1146/annurev-soc-070308-115920>
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Erlbaum.
- Edelmann, N., Schossboeck, J., & Albrecht, V. (2021). Remote work in public sector organisations: Employees' experiences in a pandemic context. In *DG.O2021: The 22nd Annual International Conference on Digital Government Research* (pp. 408–415). ACM. <https://doi.org/10.1145/3463677.3463725>
- Ettema, D., & van der Lippe, T. (2009). Weekly rhythms in task and time allocation of households. *Transportation*, 36(2), 113–129. <https://doi.org/10.1007/s11116-009-9190-3>
- Fischer, C., Proeller, I., Siegel, J., & Drathschmidt, N. (2020). Virtuelle Teams und Homeoffice. In T. Klenk, F. Nullmeier, & G. Wewer (Eds.), *Handbuch Digitalisierung in Staat und Verwaltung* (pp. 1–13). Springer Fachmedien Wiesbaden. [https://doi.org/10.1007/978-3-658-23669-4\\_88-1#DOI](https://doi.org/10.1007/978-3-658-23669-4_88-1#DOI)
- Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (pp. 143–162). American Psychological Association. <https://doi.org/10.1037/10474-007>
- García-Mainar, I., Molina, J. A., & Montuenga, V. M. (2011). Gender differences in childcare: Time allocation in five European countries. *Feminist Economics*, 17(1), 119–150. <https://doi.org/10.1080/13545701.2010.542004>
- Gil Solá, A. (2016). Constructing work travel inequalities: The role of household gender contracts. *Journal of Transport Geography*, 53, 32–40. <https://doi.org/10.1016/j.jtrangeo.2016.04.007>
- Giménez-Nadal, J. I., Molina, J. A., & Velilla, J. (2020). Work time and well-being for workers at home: evidence from the American Time Use Survey. *International Journal of Manpower*, 41(2), 184–206. <https://doi.org/10.1108/IJM-04-2018-0134>
- Golden, T. D., Veiga, J. F., & Simsek, Z. (2006). Telecommuting's differential impact on work-family conflict: Is there no place like home? *The Journal of Applied Psychology*, 91(6), 1340–1350. <https://doi.org/10.1037/0021-9010.91.6.1340>
- Haddad, H., Lyons, G., & Chatterjee, K. (2009). An examination of determinants influencing the desire for and frequency of part-day and whole-day homeworking. *Journal of Transport Geography*, 17(2), 124–133. <https://doi.org/10.1016/j.jtrangeo.2008.11.008>
- Hägerstrand, T. (1970). What about people in Regional Science? *Papers of the Regional Science Association*, 24(1), 6–21. <https://doi.org/10.1007/BF01936872>
- Helmold, M. (2023). New Work als neues Arbeitskonzept. In M. Helmold, M. Landes, E. Steiner, T. Dathe, & L. Jeschio (Eds.), *New Work, Neues Arbeiten virtuell und in Präsenz* (pp. 1–17). Springer Fachmedien Wiesbaden. [https://doi.org/10.1007/978-3-658-41289-0\\_1](https://doi.org/10.1007/978-3-658-41289-0_1)
- Hostettler Macias, L., Ravalet, E., & Rérat, P. (2022). Potential rebound effects of teleworking on residential and daily mobility. *Geography Compass*, 16(9), 1–17. <https://doi.org/10.1111/gec3.12657>
- Kawgan-Kagan, I. (2015). Early adopters of carsharing with and without BEVs with respect to gender preferences. *European Transport Research Review*, 7(4), article number 33. <https://doi.org/10.1007/s12544-015-0183-3>

- Konrad, K. (2016). *Mobiler Alltag im Wandel des Geschlechterverhältnisses*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-11282-0>
- Krasilnikova, N., & Levin-Keitel, M. (2022). Telework as a game-changer for sustainability? Transitions in work, workplace and socio-spatial arrangements. *Sustainability*, 14(11), 6765. <https://doi.org/10.3390/su14116765>
- Kurowska, A. (2020). Gendered effects of home-based work on parents' capability to balance work with non-work: Two countries with different models of division of labour compared. *Social Indicators Research*, 151(2), 405–425. <https://doi.org/10.1007/s11205-018-2034-9>
- Mann, S., & Holdsworth, L. (2003). The psychological impact of teleworking: stress, emotions and health. *New Technology, Work and Employment*, 18(3), 196–211. <https://doi.org/10.1111/1468-005X.00121>
- Martin, D. D., & Wilson, J. L. (2005). Role theory. In G. Ritzer (Ed.), *Encyclopedia of social theory* (Vol. 1, pp. 651–655). SAGE Publications.
- McPhail, R., Chan, X. W., May, R., & Wilkinson, A. (2024). Post-COVID remote working and its impact on people, productivity, and the planet: an exploratory scoping review. *The International Journal of Human Resource Management*, 35(1), 154–182. <https://doi.org/10.1080/09585192.2023.2221385>
- Mokhtarian, P. L., & Salomon, I. (1997). Modeling the desire to telecommute: The importance of attitudinal factors in behavioral models. *Transportation Research Part a: Policy and Practice*, 31(1), 35–50. [https://doi.org/10.1016/S0965-8564\(96\)00010-9](https://doi.org/10.1016/S0965-8564(96)00010-9)
- Morganson, V. J., Major, D. A., Oborn, K. L., Verive, J. M., & Heelan, M. P. (2010). Comparing telework locations and traditional work arrangements. *Journal of Managerial Psychology*, 25(6), 578–595. <https://doi.org/10.1108/02683941011056941>
- Moser, L., Andermatt, K. C., & Hegele, Y. (2021). Home sweet Home? Erkenntnisse zu Homeoffice in den Zürcher Gemeindeverwaltungen während der Covid-19 Pandemie. *Swiss Yearbook of Administrative Sciences*, 12(1), 98–119. <https://doi.org/10.5334/ssas.162>
- Motte-Baumvol, B., Bonin, O., & Belton-Chevallier, L. (2017). Who escort children: mum or dad? Exploring gender differences in escorting mobility among Parisian dual-earner couples. *Transportation*, 44(1), 139–157. <https://doi.org/10.1007/s11116-015-9630-1>
- Niebuhr, F., Steckhan, G. M., & Voelter-Mahlknecht, S. (2022). New work poses new challenges: The importance of work design competencies revealed in cluster analysis. *International Journal of Environmental Research and Public Health*, 19(21), 14107. <https://doi.org/10.3390/ijerph192114107>
- Pabilonia, S. W., & Vernon, V. (2022). Telework, wages, and time use in the United States. *Review of Economics of the Household*, 20(3), 687–734. <https://doi.org/10.1007/s11150-022-09601-1>
- Pape, M., Miyagi, M., Ritz, S. A., Boulicault, M., Richardson, S. S., & Maney, D. L. (2024). Sex contextualism in laboratory research: Enhancing rigor and precision in the study of sex-related variables. *Cell*, 187(6), 1316–1326. <https://doi.org/10.1016/j.cell.2024.02.008>
- Parnell, K. J., Pope, K. A., Hart, S., Sturgess, E., Hayward, R., Leonard, P., & Madeira-Revell, K. (2022). 'It's a man's world': A gender-equitable scoping review of gender, transportation, and work. *Ergonomics*, 65(11), 1537–1553. <https://doi.org/10.1080/00140139.2022.2070662>
- Ransome, P. (2007). Conceptualizing boundaries between 'life' and 'work'. *The International Journal of Human Resource Management*, 18(3), 374–386. <https://doi.org/10.1080/09585190601167425>
- Ravalet, E., & Rérat, P. (2019). Teleworking: Decreasing Mobility or increasing tolerance of commuting distances? *Built Environment*, 45(4), 582–602. <https://doi.org/10.2148/benv.45.4.582>
- Reichelt, M., Makovi, K., & Sargsyan, A. (2021). The impact of COVID-19 on gender inequality in the labor market and gender-role attitudes. *European Societies*, 23(sup1), S228–S245. <https://doi.org/10.1080/14616696.2020.1823101>
- Richardson, S. S. (2022). Sex Contextualism. *Philosophy, Theory, and Practice in Biology*, 14(0). <https://doi.org/10.3998/prpbio.2096>
- Rosenbloom, S. (2004). Understanding woman's and men's travel patterns. *Conference Proceedings 35*, 7–28 (Research on Women's Issues in Transportation. Volume 1: Conference overview and plenary papers). <https://nap.nationalacademies.org/read/23274>

- Russell, H., O'Connell, P.J., & McGinnity, F. (2009). The impact of flexible working arrangements on work-life conflict and work pressure in Ireland. *Gender, Work & Organization*, 16(1), 73–97. <https://doi.org/10.1111/j.1468-0432.2008.00431.x>
- Scheiner, J. (2016). Time use and the life course: A study of key events in the lives of men and women using panel data. *European Journal of Transport and Infrastructure Research*, 16(4), 638–660. <https://doi.org/10.18757/ejtir.2016.16.4.3163>
- Schwanen, T., Dijst, M., & Dieleman, F.M. (2002). A microlevel analysis of residential context and travel time. *Environment and Planning a: Economy and Space*, 34(8), 1487–1507. <https://doi.org/10.1068/a34159>
- Sirgy, M.J., & Lee, D.-J. (2016). Work-life balance: A quality-of-life model. *Applied Research in Quality of Life*, 11(4), 1059–1082. <https://doi.org/10.1007/s11482-015-9419-6>
- Song, Y., & Gao, J. (2020). Does telework stress employees out? A study on working at home and subjective well-being for wage/salary workers. *Journal of Happiness Studies*, 21(7), 2649–2668. <https://doi.org/10.1007/s10902-019-00196-6>
- Sovacool, B.K., Kester, J., Noel, L., & Rubens, G.Z. de (2018). The demographics of decarbonizing transport: The influence of gender, education, occupation, age, and household size on electric mobility preferences in the Nordic region. *Global Environmental Change*, 52, 86–100. <https://doi.org/10.1016/j.gloenvcha.2018.06.008>
- Steinmetz, S., Vandecasteele, L., Lebert, F., Voorpostel, M., & Lipps, O. (2022). The gendered consequences of the COVID-19 lockdown on unpaid work in Swiss dual earner couples with children. *Gender, Work & Organization*, 29(6), 2034–2051. <https://doi.org/10.1111/gwao.12875>
- Sullivan, C., & Lewis, S. (2001). Home-based telework, gender, and the synchronization of work and family: Perspectives of teleworkers and their co-residents. *Gender, Work & Organization*, 8(2), 123–145. <https://doi.org/10.1111/1468-0432.00125>
- Thulin, E., Vilhelmson, B., & Johansson, M. (2019). New telework, time pressure, and time use control in everyday life. *Sustainability*, 11(11), 3067. <https://doi.org/10.3390/su11113067>
- Vayre, É., Morin-Messabel, C., Cros, F., Maillot, A.-S., & Odin, N. (2022). Benefits and risks of teleworking from home: The teleworkers' point of view. *Information*, 13(11), 545. <https://doi.org/10.3390/info13110545>
- Viana Cerqueira, E., & Morte-Baumvol, B. (2022). Flexible work arrangements and household-related journeys. Who takes the lead in dual-earner heterosexual couples? *Travel Behaviour and Society*, 26, 240–249. <https://doi.org/10.1016/j.tbs.2021.11.003>
- Vilhelmson, B., & Thulin, E. (2016). Who and where are the flexible workers? Exploring the current diffusion of telework in Sweden. *New Technology, Work and Employment*, 31(1), 77–96. <https://doi.org/10.1111/ntwe.12060>
- Vovsha, P., Petersen, E., & Donnelly, R. (2004). Model for allocation of maintenance activities to household members. *Transportation Research Record: Journal of the Transportation Research Board*, 1894(1), 170–179. <https://doi.org/10.3141/1894-18>
- West, C., & Zimmermann, D.H. (1987). Doing gender. *Gender & Society*, 1(2), 125–151. <https://doi.org/10.1177/0891243287001002002>
- Wöhner, F. (2022). Work flexibly, travel less? The impact of telework and flextime on mobility behavior in Switzerland. *Journal of Transport Geography*, 102, 103390. <https://doi.org/10.1016/j.jtrangeo.2022.103390>
- Z'Rotz, J., Magnin, C., & Gisin, L. (2021). *Homeoffice in öffentlichen Verwaltungen: Auswirkungen der Covid-19-Pandemie auf die Arbeitskultur in Gemeinden und Kantonen* [Schlussbericht]. Hochschule Luzern. <https://www.hslu.ch/-/media/campus/common/files/dokumente/w/w-ibr/regionaloekonomie/schlussbericht-zu-homeoffice-in-oeffentlichen-verwaltungen.pdf?la=de-ch>
- Zhang, S., Moeckel, R., Moreno, A.T., Shuai, B., & Gao, J. (2020). A work-life conflict perspective on telework. *Transportation Research Part a: Policy and Practice*, 141, 51–68. <https://doi.org/10.1016/j.tra.2020.09.007>