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Travel and satisfaction changes in response to working from home (WFH) in Perth, Western Australia

Doina Olaru [1,*], Brett Smith [1], Tristan W. Reed [1], Sharon Biermann [2]

[1] UWA Business School, The University of Western Australia, Australia
[2] Planning and Transport Research Centre, The University of Western Australia, Australia
* corresponding author doina.olaru@uwa.edu.au

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Abstract

The working-from-home (WFH) experiment during the COVID-19 pandemic has transformed our lives in unprecedented ways and the practice is likely to stay, with substantial changes to activity-travel behaviour. Drawing on three waves of employee surveys (2021-2022), this paper reports on associations between individual circumstances, work and travel behaviour, as well as their impacts on satisfaction during the pandemic, in Perth, Western Australia (WA). Before the pandemic, the average WFH rate in Perth was only 3.4% of all employees, with significant variation across job types. However, during 2020-2022, this rate increased substantially, with employees showing a manifest interest in continuing and expanding the practice. This shift in working patterns has resulted in changes in commuting and time use, as well as in the overall satisfaction of the employees and their well-being. The associations are tested using a covariance-based structural equation model (CB-SEM), showing positive impacts of WFH and reduced commute in satisfaction with travel, which in turn positively contributes to life satisfaction, after controlling for other life domains and socio-economic factors.

1 Introduction

Despite its long history, working from home (WFH) – formally labelled telework, remote work, or telecommuting (Mokhtarian, 1991) – became more prevalent during the COVID-19 pandemic. The 'emergency work mode' remains popular among employees due to less commuting and a better work-life balance (Eliasson, 2021; Hensher et al., 2021; Lund et al., 2020; van Wee & Witlox, 2021). The persistence of WFH has far-reaching implications for transport systems, yet several critical knowledge gaps remain. Early evidence suggests that sustained remote work could reshape travel demand and congestion patterns by reducing peak-hour commuting, alleviating congestion, and lowering public transport crowding (Hensher et al., 2023). Yet, despite these expectations, traffic volumes in many cities have returned to or even surpassed pre-pandemic levels (van Wee & Witlox, 2021). This apparent paradox points to more complex behavioural adaptations that are not yet well understood.

WFH has also transformed public transport use, with significant declines in ridership and shifts in mode share observed during and after the pandemic (Eliasson, 2021; Marra et al., 2021). These changes have been particularly pronounced among knowledge workers in office-centric roles, who often reside in well-serviced urban areas (Currie et al., 2021). By contrast, frontline and service workers, who typically have less flexibility, continue to rely on A key unresolved question is whether WFH leads to patterns that represent permanent structural changes or temporary disruptions in response to pandemic conditions (Hensher et al., 2023; Asadieh & Neisch, 2025), and how transport agencies should adapt service provision in response.

A second major gap concerns the institutional and policy dimensions of remote work. Decisions about where and how people work are shaped not only by individual preferences but also by employer policies and broader economic considerations. Many organisations, including governments and private companies, are now encouraging a partial or full return to the office, citing concerns about productivity, collaboration, and the vitality of central business districts (CBDs) (Hackney et al., 2022; Linder, 2024). These institutional pressures influence commuting patterns and could moderate or even reverse the potential transport benefits of WFH. Yet, transport studies have largely focused on individual-level impacts, such as travel time savings, while underexamining how employer-driven policies shape travel behaviour over time (Knight et al., 2022; Wiese et al., 2023).

Understanding these dynamics is crucial because long-term changes in work arrangements have implications beyond daily commuting. Sustained flexibility in work location may influence residential location choices, encouraging some workers to relocate further from employment centres and increasing demand for local services (Stiles & Smart, 2020). These shifts, in turn, require adaptive transport policies that support more decentralised travel patterns and hybrid work practices (Hensher et al., 2023; Curtis et al., 2024). The interplay between work arrangements, land use decisions, and transport demand remains poorly understood, representing another important gap.

Beyond travel behaviour and policy responses, WFH has broader implications for well-being and quality of life. The shift toward hybrid work models affects not only commuting patterns but also mental health, job satisfaction, and work–life balance — factors that in turn influence transport choices (Maheshwari et al., 2024; McPhail et al., 2023; Wiese et al., 2023). Yet these dimensions remain underrepresented in transport scholarship, which has tended to emphasise network-level efficiency rather than the lived experience of workers navigating new work arrangements.

Addressing these interconnected gaps, this study examines how workers adapt to evolving WFH policies and how these adaptations shape travel behaviour, productivity, and well-being over time. Using three waves of survey data collected in Perth, Western Australia (2021–2022), we investigate changes in WFH participation, institutional support, perceived productivity, and quality of life. Perth offers a particularly valuable context for this analysis because, unlike many global cities

where remote work was mandated during prolonged lockdowns, WFH here was largely a matter of choice. This voluntary uptake created a unique setting in which workers could continue maintaining social connections, engage in community life, and integrate work flexibility into their daily routines, all critical factors influencing life satisfaction and travel behaviour. By situating our analysis in this distinctive environment, our study moves beyond short-term, crisis-driven responses to WFH and provides deeper insights into how work arrangements, organisational policies and support, and individual experiences interact to reshape urban mobility and quality of life in the post-pandemic era.

Before the pandemic, the average prevalence of WFH in Perth was 3.4% of all employees, with significant variation across job types. However, during 2020-2022, this rate increased substantially. Yet, due to local conditions (strict border closures and internal restrictions to protect its population), less than 10% of employees chose to work exclusively from home, with many opting for a hybrid model. Consistent with Lee (2023), there is a gap between employer preferences for WFH and their current practices, primarily driven by employer policies. This shift in working patterns has resulted in changes in commuting and time use, as well as in the overall satisfaction of employees and their well-being. The associations are tested using a covariance-based structural equation model (CB-SEM).

The structure of the paper is as follows: Section 2 presents a brief literature review on life changes produced by WFH, Section 3 describes the case study, Section 4 explains the data analysis and results, and Section 5 concludes with a discussion of findings and directions for future work.

2 Relevant literature review

2.1 Theoretical framework

Transport research traditionally draws on the microeconomic framework of utility maximisation, where individuals choose travel modes, routes, and destinations to maximise their utility subject to constraints such as time and cost (Jara-Diaz, 2019). Commuting, in this view, is a derived demand, undertaken not for its own sake but as a means to access employment opportunities. While early models focused primarily on minimising generalised travel costs and quantifying values of work and travel, more recent research has extended this framework to incorporate subjective well-being and satisfaction (Bergstad et al., 2010; Ettema et al., 2010; Kroesen & Chorus, 2020; de Vos et al., 2015; Chatterjee et al., 2019; Clark et al., 2019; Maheshwari et al., 2024). This extension recognises that travel decisions and their outcomes are not solely shaped by time and cost considerations but also by how they affect individuals' quality of life, mental health, and work–life balance.

The shift toward WFH provides a compelling context in which to apply and further develop this extended framework. WFH fundamentally changes the conditions under which commuting decisions are made, often eliminating the commute altogether or altering its frequency, timing, and purpose. These changes influence not only transport system performance but also individual satisfaction across multiple domains of life. From a theoretical perspective, the introduction of remote and hybrid work options modifies the utility landscape by introducing new dimensions, such as autonomy, flexibility, and work–life integration, that interact with traditional travel-related attributes. Understanding these interactions is critical for explaining both travel behaviour and broader well-being outcomes in the post-pandemic era (Barrero et al., 2021; van Wee & Witlox, 2021; Hensher et al., 2023).

Recent empirical evidence supports this extended view. Maheshwari et al. (2024), for example, indicate that satisfaction with commuting is a significant determinant of overall subjective well-being (SWB) and interacts with satisfaction across a range of life domains, including job satisfaction, time use, leisure, personal relationships, residential environment, and health. WFH

can positively influence workers' SWB by enhancing flexibility in daily work schedules, improving work–life balance, and increasing perceived control over how time is allocated. These benefits, in turn, can lead to higher work productivity, greater job satisfaction, and more meaningful engagement with non-work activities. Such evidence reinforces the importance of incorporating well-being and/or satisfaction considerations into transport analyses and highlights WFH as a context that extends the traditional utility-based framework to sociological and psychological domains.

2.2 Extent and patterns of WFH

The adoption of WFH has expanded dramatically since the COVID-19 pandemic, but its scale and form vary widely across contexts, occupations, and policy environments. Evidence suggests that up to one-quarter of the workforce in advanced economies can work from home at least three days per week when physical presence is not essential (Dingel & Neiman, 2020; Lund et al., 2020; Lee, 2023). While WFH is often associated with office-based knowledge work, its feasibility depends on the nature of the tasks rather than the occupation itself (Adams-Prassl et al., 2021; Barrero et al., 2023). As such, even roles traditionally tied to physical workplaces may incorporate remote components.

Post-pandemic trends indicate that hybrid arrangements (splitting time between home and workplace) have become the dominant model (Barrero, 2021; Beck & Hensher, 2020a, 2020b; McPhail et al., 2023; Pawluk De Toledo et al., 2022; Vyas, 2022). Surveys of over 30,000 U.S. workers show that employers plan for about 20% of workdays to be home-based, compared with just 5% pre-pandemic (Barrero et al., 2021). Internationally, Aksoy et al. (2022) report that 26% of employees work in hybrid mode, 8% exclusively from home, and 67% fully on-site (based on a survey of work arrangements among full-time employees in 34 countries). In Australia, WFH increased sharply during the pandemic, with 41% of Australians commencing remote work in 2020 (Renton, 2020), and the trend has persisted: by 2022, 46% reported working from home, with nearly one-third doing so most of the time (Australian Bureau of Statistics, 2022).

However, the experience of WFH is not uniform. It depends on external conditions, such as the severity of lockdowns, and internal factors, including employer policies and job characteristics (Beck et al., 2024). While many organisations now embrace hybrid work to attract and retain talent (Vyas, 2022), reports that well-known companies such as Apple, BBC, British Airways, Google, Microsoft, and Siemens AG have adopted WFH practices, others (e.g., Amazon) have reintroduced 'return to office' mandates (Linder, 2024). Productivity outcomes are similarly mixed, with many studies reporting improvements (Barrero et al., 2021; Choudhury et al., 2020), but others highlighting challenges linked to communication, home infrastructure, or family disruptions when individuals feel pressure to manage domestic tasks (Hackney et al., 2022). Nevertheless, many business leaders indicated concerns around workplace culture, collaboration and teamwork, trust, motivation, and innovation (Renton, 2020; Parker et al., 2020), suggesting again that a hybrid model of working from the workplace three or more days per week may be optimal. This spectrum of WFH needs to be considered when assessing the effect of WFH on satisfaction and well-being (Maheshwari et al., 2024), in conjunction with individual socio-demographic and work characteristics.

Individual preferences and needs further shape WFH patterns. Career stage, for instance, influences location choices: early-career employees often require more mentoring and benefit from in-person interactions (Lee, 2023), while those with significant caregiving responsibilities are more likely to prefer home-based work (Chen, 2021; Curtis et al., 2022; McPhail et al., 2023). These variations show the need for considering socio-demographic and life-course contexts when analysing WFH impacts.

2.3 Impact of WFH on travel and satisfaction

From a transport perspective, WFH directly reduces the need for commuting, leading to fewer trips, lower travel costs, and time savings (Beck et al., 2020; Heisler, 2020; Currie et al., 2021; van Wee & Witlox, 2021). These changes have been linked to congestion relief and improved traffic conditions but also to reduced public transport patronage, a trend that has persisted beyond the pandemic (Eliasson, 2021; Hensher et al., 2021; Rafiq et al., 2022). The broader consequences of these shifts depend on how remote work interacts with residential location decisions and transport mode choices. Sustained flexibility may encourage relocation to more distant areas, altering travel demand and increasing pressure for new local services (Stiles & Smart, 2020; Curtis et al., 2024).

At the individual level, the time saved by avoiding commuting contributes positively to satisfaction and well-being (McPhail et al., 2023; Maheshwari et al., 2024). Time and cost savings reduce travel-related stress and can be reallocated to activities that enhance quality of life (Beck & Hensher, 2020b; Beck et al., 2020; Ettema et al., 2010; Greaves et al., 2023; Vij et al., 2023). These gains are partly attributed to greater control over scheduling and the ability to better align work demands with personal routines and preferences (de Vos, 2019; Maheshwari et al., 2024).

The opposite effects were also noted. While moderate levels of remote work tend to enhance satisfaction, excessive WFH can blur boundaries between work and personal life, leading to overload, fatigue, and diminished mental health (Vyas, 2022; Berger Ploszaj et al., 2025). These effects are particularly pronounced under conditions of enforced WFH, such as during lockdowns, which were associated with higher stress, burnout, and depressive symptoms (Hackney et al., 2022; Platts et al., 2022). Conversely, autonomy afforded to workers, greater schedule flexibility, and reduced workplace interruptions are linked to improved job satisfaction and mental health (Parker et al., 2020), while hybrid models can alleviate social isolation and detachment, thereby promoting better overall well-being (Knight et al., 2022).

Importantly, preferences for WFH and the resulting satisfaction outcomes vary widely across individuals and organisations (Šmite et al., 2022). These findings reinforce the need to account for heterogeneity in WFH experiences and highlight the role of institutional support in shaping outcomes. Despite these insights, much of the existing literature has focused on short-term behavioural responses or aggregate patterns, overlooking the evolving nature of WFH policies and their long-term implications for transport behaviour and well-being.

2.4 Conceptualising the links between WFH, travel, and satisfaction

Building on the extended utility framework and Maheshwari et al.'s (2024) model linking commuting with satisfaction, we propose that overall satisfaction arises not only from reduced commuting time and costs, but also from the interaction of work arrangements, autonomy, and broader life domains. Figure 1 presents our conceptual framework, which underpins the CB-SEM model tested in this study. We examine how WFH influences commuting frequency and duration, as well as commuting satisfaction, which, in turn, affects overall life satisfaction, while controlling for socio-demographic characteristics and satisfaction with other life domains (e.g., financial situation, time use).

We describe these associations in more detail next:

- At the top left, we incorporate the degree of agency employees have over their WFH arrangements, recognising that autonomy in deciding when and how (having a say) to work remotely shapes satisfaction outcomes. This reflects both formal policies and informal managerial flexibility, reflecting alignment with personal needs or preferences (e.g., related to caregiving, productivity, or commute), and a more supportive work culture.
- The overall percentage of time spent WFH, is linked to both reduced frequency and duration of commute (Beck et al., 2020; Eliasson, 2021), as well as to improved well-being (Chatterjee et al., 2019).

- At the bottom left, we account for key transport-related variables such as commuting mode, trip chaining behaviour, and distance, all of which influence commute duration. These factors are especially salient in Perth, a highly dispersed city where over 75% of trips are car-based, and workplace parking is widely available. The commuting mode choice (car vs non-car) is influenced by car availability, provision of free parking at the workplace, and the number of stops typically made during the commuting tour. This is because commuting is often embedded within complex trip chains involving, for example, dropping-off family members, shopping, or picking up coffee on the way to the office. Concerns about health and safety during the pandemic further shaped preferences for private versus shared modes. Together, these factors influence the nature and duration of commuting, which impact on the commuting frequency. The trade-offs between longer but fewer commutes (if possible) vs shorter and more frequent commutes seem to expose an implicit cap/threshold on acceptability of the weekly travel time spent on travel to and from work (Nagler et al., 2024), and that commuting may be more onerous than work (Poudel & Singleton, 2022), which ultimately is reflected in the satisfaction with commuting.
- The increased WFH and reduction of commuting are generally associated with improved satisfaction, yet, in many situations, the associations do not account for other life domains (Clark et al., 2019; Maheshwari et al., 2024), including both positive and negative experiences (Diener, 1984; Kroesen, 2018; Tao et al., 2022). Here, we included satisfaction with time use and financial situation/independence as key domains (bottom right of the diagram). Having the ability to re-allocate travel time savings to other more desirable maintenance, committed, and discretionary activities, combined with the benefits of comfortable financial circumstances, is expected to positively contribute to overall life satisfaction.
- Nevertheless, personal circumstances can vary the impact (Hackney et al., 2022; Vyas, 2022). Socio-demographic variables (top right of Figure 1) were included to account for background differences across individuals. The literature shows that WFH has become a widespread and enduring shift in advanced economies, particularly among knowledge workers, with many companies now offering hybrid or remote options as a recruitment and retention strategy. Studies highlight distinct patterns of WFH for frontline workers, although flexible arrangements (such as choosing the number of remote days or tailoring work hours) may be open to many industries and roles, depending on task suitability, career and life stage, and employer support. Distinct socio-demographic groups may also perceive differently the positive impacts of WFH on travel time and cost savings, commuting stress, schedule flexibility, and thus satisfaction.

A multigroup SEM was estimated to examine how the influence of WFH on commuting satisfaction and, subsequently, on overall life satisfaction, evolved across the three waves of the study. This longitudinal approach allowed us to assess whether the slightly stricter conditions of isolation and workplace restrictions present during Wave 1 produced distinct effects compared with Waves 2 and 3, when work arrangements and daily routines had become substantially more flexible. In doing so, the analysis captures the dynamic nature of WFH impacts as workers adapted to changing conditions over time.

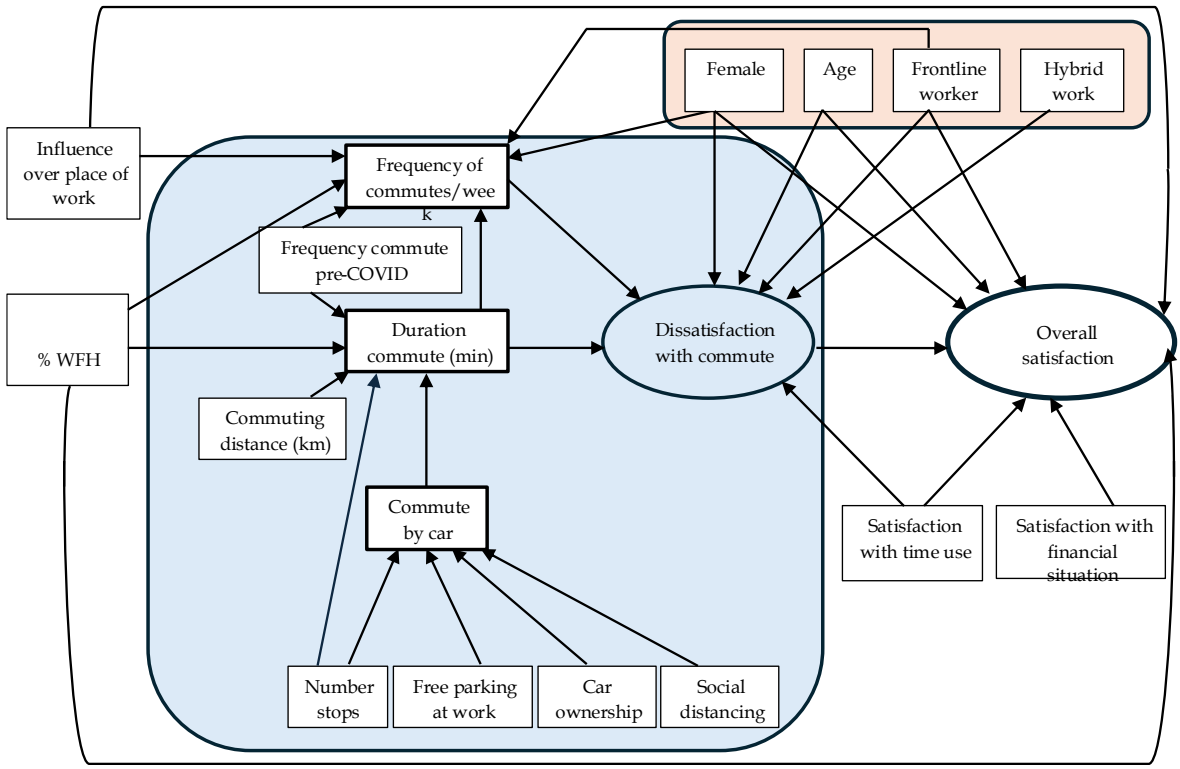

Figure 1. SEM model structure

3 Geographical setup and data collection

The disruptive episode of the pandemic in Perth, Western Australia (WA), provided a unique opportunity to build new knowledge on the amount of WFH, changes in travel behaviour, and its wider implications for employees. The uniqueness of the case lies in WA's distinctive infection control policies implemented during the pandemic. State borders were closed to international and interstate travel for almost two years, and there were only short, limited periods of mandated 'lockdown' within specific areas of the state. This meant that WA benefited from largely unrestricted movement within the state during the pandemic. Changes in traffic patterns and public transport (PT) ridership, therefore, mainly reflect the behavioural responses of residents, rather than large effects driven by mandated lockdowns or similar interventions. As the results indicate, there is substantial heterogeneity in experiences, yet overall, Perth residents value the benefits brought by WFH.

3.1 Sample

Data was collected in three waves (W1, W2, W3) via the PureProfile online panel. The data represent a true panel, and the participants in waves 2 and 3 represented subsets of the previous participants. Surveys lasted 15-20 min and required participants to have worked at least 10 hours in the 'last week'. The survey covered work patterns, COVID-related topics, and demographics. No special incentives were given, other than those typical for panel participation. The attrition of the panel was substantial, and respondent numbers fell from nearly 2,800 in wave 1 (W1, May/Jun 2021) to 1,500 in wave 2 (W2, Sep/Oct 2021) and 750 in wave 3 (W3, Feb/Mar 2022).

The study sample (wave 1) consisted of 66% females, with an average age of 38.8 years (range 19-70), varying slightly across waves. About 36-38% were from small (<50 employees) and large (>500 employees) companies, and >20% from medium-sized firms. Based on Australian standardised industry and role classifications (ANZSIC Divisions and ANZSCO Major Occupation Groups), respondents were categorised as flexible, essential/frontline, or mixed/hybrid (Table 1). The

sample had 13% frontline, and equal portions of flexible and hybrid jobs, and an inverse distribution by industry: 16% flexible location industries, 40% frontline/essentials, and 44% hybrid. While the sample composition remained unchanged by industry, over time, hybrid roles increased from 43.6% to 47%, while frontline roles dropped from 13% to 10%.

3.2 Covariance-based SEM model strategy

Considering the complexity of associations between work patterns, commuting, personal circumstances, and individual values and perspectives, and the need for simultaneously assessing the determinants of travel, work, and their outcomes, we estimated several structural equation models (SEM) and partial least squares (PLS) models, using the survey wave as a moderator. This paper reports only on a multigroup SEM. The objective was to jointly assess whether the associations between WFH, travel, satisfaction with commute, with other life aspects, and overall life satisfaction strengthened/diminished/remained stable over time, i.e., altered or not over time. There are five endogenous variables in the model; three for travel behaviour (commute frequency, duration, and mode), and two for satisfaction (with commute and overall satisfaction with life (SWL) and thriving/flourishing). Commuting behaviour and satisfaction with commute are mediating the relations between WFH and influence over place of work and overall satisfaction, after controlling for socio-demographic and context variables (**Figure 1**). The number of stops, car ownership, and free parking were considered covariates in the models explaining the mode and duration of the commute. Social distancing concerns were also identified as a determinant of the travel mode (de Vos, 2020; Hensher et al., 2021) and thus included in the model. Considering the complexity of the model and the diminishing sample size of the panel, the measurement model for the two satisfaction constructs was estimated prior to the results reported elsewhere (Curtis et al., 2022). All models were estimated using R.

4 Data analysis results

Descriptive and predictive models are used to examine the links between individual traits, WFH, travel behaviour, and satisfaction with commute, financial situation, time use, and overall life satisfaction (encompassing SWL, thriving, and anxiety and depression).

4.1 Descriptive statistics for employees and their work

Work hours increased from W1 to W3 (Table 1), especially among full-time (FT) and high-income respondents. However, the work design and the % of time working from the workplace/home did not change substantially across waves. Despite a desire for more WFH time (>29%), respondents in Perth reported low (16%) WFH, reflecting the low influence on work location (<15% of the respondents reported complete flexibility in choosing their place of work). Total paid hours increased by about 3 hours between waves 1 and 3 ($p<0.001$), reflecting the relaxation of constraints and improvement in economic conditions, with many employees moving from part-time to full-time employment. Leisure hours increased ($p=0.020$), but the change in WFH percentage was not significant ($p=0.262$).

Based on reported hours of work at each location, employees were categorised into three groups: mostly in the workplace (denoted *WPL*, ≤10% WFH), mostly WFH (denoted *WFH*, >80% WFH), and *hybrid* (between 10% and 80% WFH). *WFH* respondents had the longest commutes, while *hybrids* had the most stops and the highest commute satisfaction. In W3, fewer worked in a hybrid mode, and more chose a single location to work from. Social distancing measures marginally increased from W1 to W3, going from 3.12 to 3.3 on a five-point scale.

Table 1. Descriptive statistics of waves 1 to 3 – main features.

Variable	Statistic	Wave 1 (W1)	Wave 2 (W2)	Wave 3 (W3)	ANOVA p
Age (years)	N Mean (Std. dev.) [Range]	2,799 38.80 (12.87) [20, 70]	791 38.16 (11.92) [19, 70]	612 39.84 (11.93) [21, 70]	0.051
Household income vs median ($120,000) (Below/Significantly Below; About the same; Above/Significantly Above)	% in the three categories	**48.3%**; 20.8%; 30.8%	41.8%; 23.8%; 34.4%	41.5%; 24.7%; 33.8%	0.006
Influence over where work	N Mean (Std. dev.) [Range]	1,526 2.08 (1.20) [1, 5]	912 2.11 (1.20) [1, 5]	612 2.07 (1.20) [1, 5]	0.721
Total hours of paid work in all locations over the last week	Mean (Std. dev.) [Range]	32.33 (13.07) [10, 100]	34.90 (14.07) [0, 112]	**35.27** (13.97) [0, 108]	<0.001
Total preferred hours work in all locations post-COVID	Mean (Std. dev.) [Range]	33.27 (12.38) [0, 100]	33.42 (12.39) [0,100]	32.61 (12.57) [0, 100]	0.429
WFH:WPL % for actual hours worked last week	N Mean (Std. dev.) [Range]	1,493 15.9% (28.2) [0, 100]	886 15.5% (28.8) [0, 100]	596 17.9% (32.7) [0, 100]	0.262
WFH:WPL % for preferred hours post-COVID	N Mean (Std. dev.) [Range]	1,501 28.5% (33.7) [0, 100]	899 29.5% (33.4) [0, 100]	600 31.1% (36.0) [0, 100]	0.28
# hours leisure activities	Mean (Std. dev.) Range	2.01 (2.06) [0, 11.9]	2.18 (2.13) [0, 15.5]	**2.34** (2.32) [0, 17.2]	0.020
Current employment status (paid employee full time FT; part time PT; self-employed; other)	% in the four categories	58.40%; 31.50%; 7.30%; 2.80%	64.30%; 30.30%; *3.70%*; 1.60%	**65.20%;** 29.10%; *5.20%*; 0.50%	0.002
Location of paid work (WPL; hybrid; WFH)	% in the three categories	62.7%; 30.7%; 4.4%	65.4%; 26.8%; 5%	**66.5%;** *22.4%*; **8.5%**	<0.001

Satisfaction with financial situation marginally improved (0.042), and anxiety and depression significantly decreased (0.005) (Table 2). The other commuting, time, and life satisfaction metrics showed no significant change.

Table 2. Descriptive statistics of waves 1 to 3 – main features.

Variable	Statistic	Wave 1 (W1)	Wave 2 (W2)	Wave 3 (W3)	ANOVA p
	N	1,526	912	612	
Overall satisfaction with life SWL	Mean (Std. dev.) [Range]	4.47 (1.23) [1, 7]	4.58 (1.26) [1, 7]	4.49 (1.18) [1, 7]	0.112
Satisfaction with financial situation	Mean (Std. dev.) [Range]	4.41 (1.63) [1, 7]	**4.56** (1.62) [1, 7]	**4.55** (1.56) [1, 7]	0.042
Satisfaction with time allocation/use	Mean (Std. dev.) [Range]	2.77 (1.28) [1, 7]	2.80 (1.29) [1, 7]	2.72 (1.21) [1, 7]	0.527
Thriving/flourishing (latent construct)	Mean (Std. dev.) [Range]	5.13 (1.02) [1, 7]	5.20 (1.03) [1, 7]	5.12 (1.01) [1, 7]	0.161
Anxiety and depression (PHQ-4) (latent construct)	Mean (Std. dev.) [Range]	**0.86** (078) [0, 6]	0.81 (0.78) [0, 6]	0.74 (0.71) [0, 6]	0.005

The following were considered flexible occupations and industries (managers and professionals or employees in info/media communication, financial, professional/technical services), essentials/frontline (machinery operators, drivers, sales/retail, employees in health care, manufacturing, transport and warehousing/postal, accommodation and food), and mixed/hybrid (remaining). Latent constructs are presented in the Appendix.

4.2 Travel behaviour across waves

There were no statistically significant differences across the three waves in terms of travel distances and commuting frequency (Table 3).

Table 3. Travel behaviour indicators across waves.

Variable	Statistic	Wave 1 (W1)	Wave 2 (W2)	Wave 3 (W3)	p
	N	1,861	942	532	
Frequency of commute - last week	Mean	3.93	**4.00**	*3.80*	0.046
	(Std. dev.)	(1.58)	(1.54)	(1.70)	
	[Range]	[0, 7]	[0, 7]	[0, 7]	
Frequency of commute - pre COVID-19	Mean	4.36	4.41	4.38	0.738
	(Std. dev.)	(1.54)			
	[Range]	[0, 7]	[0, 7]	[0, 7]	
Euclidean commuting distance (km)	Mean	14.33	14.26	13.95	0.867
	(Std. dev.)	(15.22)	(13.20)	(13.34)	
	[Range]	[0.5, 153]	[1, 122]	[1, 97]	
Time taken for commute to work (min)	Mean	*33.06*	36.58	**37.03**	<0.001
	(Std. dev.)	(20.58)	(22.43)	(23.82)	
	[Range]	[3, 150]	[5, 180]	[3, 130]	
Mode share (Car; Public transport; Active travel; Other)	% in the four modes	78.50%; 15.40%; 3.70%; 2.40%	79.40%; 15.30%; 3.00%; 2.30%	78.80%; *13.10%;* 3.40%; 4.70%	0.219
Satisfaction with the commute (1-5); 1 = Extremely satisfied; 5 = Extremely dissatisfied	Mean	2.14	2.12	2.12	0.854
	(Std. dev.)	(0.83)	(0.85)	(0.80)	
	[Range]	[1, 5]	[1, 5]	[1, 5]	
Cars owned by the household	Mean	1.90	1.89	1.83	0.267
	(Std. dev.)	(1.00)	(0.97)	(0.93)	
	[Range]	[0, 6]	[0. 6]	[0, 6]	
Number of stops (commuting)	Mean	0.65	0.59	0.59	0.136
	(Std. dev.)	(0.93)	(0.92)	(0.90)	
	[Range]	[0, 4]	[0, 4]	[0, 3]	

The same 0.4-0.5 difference in commuting trips was reported between 'last week' and 'pre-COVID'. Commuting distance has been slightly reduced, while commuting time appears to have increased by 3-4 min. While public transport (PT) usage decreased, other modes (e.g., e-rideables) increased. No changes occurred in the personal 'access' to a vehicle, nor in the number of stops during commuting.

Commuting frequency remained stable across waves, but fewer people commuted 5+ days while more worked exclusively from home. Mondays, Fridays, and more recently Thursdays showed the most WFH activity, further confirmed by aggregate data (e.g., Google mobility data). Compared to pre-COVID levels, where 56-57% of Perth respondents commuted 5 days a week, the reduction in commuting frequency is significant.

To understand potential changes in WFH patterns and commuting, we also examined workplace facilities. On average, more than 56% of the respondents stated that they had a free parking space at their workplace and were using it, with another 14% having nearby parking available. Less than 7.5% were using bike facilities, and less than 5% were using car-pooling facilities. These circumstances and behaviours remained consistent over time.

4.3 Structural equation model results

The results of two SEM models, using the survey wave as a moderator and constraining the waves to have the same structural parameters, are presented in Table 3, which highlights the commonalities across the waves and their differences. The results show consistency over time, with no significant χ^2 difference between the free (model by wave) and constrained model (last column), hence the constrained model is used for interpretation (the path diagram with statistically significant results is presented in Figure 2). The goodness-of-fit measures suggest an adequate fit for the models (Table 3). Although some predictors have not been significant (e.g., social distancing), they were kept in the model, as they were expected to play a role in the relations we tested. As anticipated, the number of commuting trips and their duration depend not only on socio-demographic conditions, occupation (particularly frontline jobs), and travel characteristics, but also on work patterns (% WFH). The larger the proportion of time WFH, the fewer the commuting trips and their duration; similarly, the stronger the influence over the work location, the fewer the commute trips/week, in every time period/wave. The baseline (pre-COVID commuting frequency) is a strong predictor for last week's commuting frequency and commute duration, which have a significant impact on commuting satisfaction (Tao et al., 2022; Maheshwari et al., 2024). On average, each commute trip by car is 10.8 mins shorter than those by other modes. Fewer commutes are positively associated with higher satisfaction with travel. Shorter commutes are also preferred (a positive link with satisfaction and commute, where lower values signify higher satisfaction). Females and older participants have reported higher satisfaction with commuting (a smaller value means higher satisfaction) and overall life satisfaction. Satisfaction with the financial situation and time allocation is also positively contributing to overall life satisfaction. More detailed comments follow.

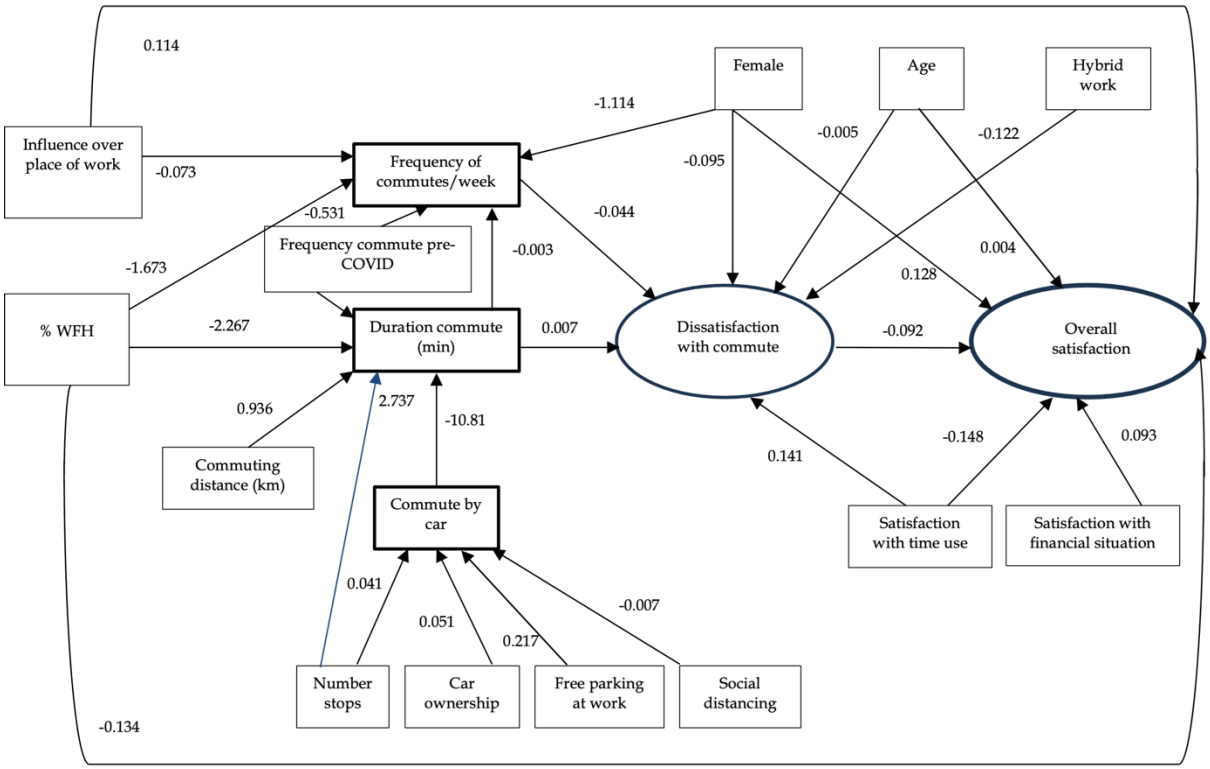

Figure 2. Estimated SEM model (constrained over time)

4.4 Frequency commuting 'last week' and commuting duration

Increasing the percentage of WFH reduces the number of commuting trips (after controlling for all other conditions). Commuting duration is negatively associated with frequency. Commuting

distance and the number of stops increase the commute duration, and car as the main mode reduces the commute duration (Table 3). Interestingly, and consistent with prior analyses, longer commutes were more likely to be completed using a combination of modes, including PT. Female respondents commuted less, and when there was little influence on the location of work, travel to the workplace increased. Commuting by car was significantly 'encouraged' by car availability, free parking (which was a measure adopted during COVID by many companies/organisations, also by the City of Perth), and the number of stops. Contrary to our expectations, concerns about social distancing and engaging in social distancing did not significantly influence the use of the car as a commuting mode, again reflecting the specific context of Perth, WA. As indicated, the frequency of pre-COVID commuting was a significant predictor of the commuting behaviour 'last week' (Table 4).

Frontline occupations or industries have not been significantly associated with commuting frequency or duration, most likely because their status is partially reflected in a lower percentage of WFH and low influence on where to work. Conversely, those with a higher percentage of WFH were willing to accept longer commutes as they commuted less frequently.

Table 4. SEM results by wave and for pooled data*

Response variables	Predictors	Wave 1 (W1) N=1,336	Wave 2 (W2) N=673	Wave 3 (W3) N=518	Constrained (Pooled)
Frequency commuting 'last week'	% WFH	**-1.566 (<0.001)**	**-1.543 (<0.001)**	**-1.999 (<0.001)**	**-1.673 (<0.001)**
	Influence over where to work	**-0.075 (0.009)**	**-0.127 (0.002)**	-0.009 (0.855)	**-0.073 (0.001)**
	Commuting duration (min)	-0.002 (0.255)	-0.002 (0.340)	-0.005 (0.049)	**-0.003 (0.025)**
	Number of stops	0.066 (0.060)	0.094 (0.065)	0.120 (0.052)	**0.082 (0.002)**
	Frequency commuting pre-COVID	**0.556 (0.001)**	**0.523 (<0.001)**	**0.470 (<0.001)**	**0.531 (<0.001)**
	Gender (M=0, F=1)	-0.112 (0.112)	-0.007 (0.942)	**-0.257 (0.036)**	**-0.114 (0.024)**
	R^2	0.459	0.431	0.422	**0.439**
Commuting duration	% WFH	-0.399 (0.748)	**4.694 (0.025)**	**5.867 (0.009)**	**2.267 (0.019)**
	Commuting distance (km)	**0.938 (<0.001)**	**0.924 (<0.001)**	**0.934 (<0.001)**	**0.936 (<0.001)**
	Number of stops	**2.411 (<0.001)**	**3.334 (<0.001)**	**3.308 (<0.001)**	**2.737 (<0.001)**
	Car commute	**-11.55 (<0.001)**	**-11.07 (<0.001)**	**-10.18 (0.001)**	**-10.81 (<0.001)**
	Free parking at work	**-2.615 (<0.001)**	**-2.665 (<0.001)**	**-4.122 (<0.001)**	**-3.011 (<0.001)**
	R^2	0.592	0.409	0.488	**0.516**
Car mode	Frequency commuting pre- COVID	0.004 (0.542)	0.010 (0.282)	**0.028 (0.013)**	**0.010 (0.043)**
	Number of stops	**0.043 (<0.001)**	**0.037 (0.019)**	**0.038 (0.034)**	**0.041 (<0.001)**
	Car ownership	**0.046 (<0.001)**	**0.050 (0.001)**	**0.063 (<0.001)**	**0.051 (<0.001)**
	Free parking at work	**0.222 (<0.001)**	**0.221 (<0.001)**	**0.205 (<0.001)**	**0.217 (<0.001)**
	Social distancing	-0.003 (0.667)	**-0.025 (0.025)**	0.014 (0.302)	-0.007 (0.251)
	Pseudo-R^2	0.295	0.268	0.273	**0.281**
Satisfaction with commuting	Commuting duration (min)	**0.007 (<0.001)**	**0.009 (<0.001)**	**0.007 (<0.001)**	**0.007 (<0.001)**
	Frequency commuting	**-0.043 (0.002)**	-0.031 (0.129)	-0.068 (0.002)	**-0.044 (<0.001)**
	Hybrid occupation	**-0.097 (0.024)**	**-0.223 (<0.001)**	-0.059 (0.390)	**-0.122 (<0.001)**
	Satisfaction with time use	**0.155 (<0.001)**	**0.124 (<0.001)**	**0.126 (<0.001)**	**0.141 (<0.001)**
	Gender	-0.042 (0.351)	**-0.146 (0.030)**	**-0.172 (0.021)**	**-0.095 (0.005)**
	Age	**-0.004 (0.017)**	**-0.006 (0.018)**	-0.005 (0.096)	**-0.005 (<0.001)**
	R^2	0.111	0.126	0.119	**0.111**
Overall satisfaction	% WFH	**-0.167 (0.037)**	-0.192 (0.081)	-0.011 (0.933)	**-0.134 (0.022)**
	Influence over where to work	**0.131 (<0.001)**	**0.060 (0.042)**	**0.144 (<0.001)**	**0.114 (<0.001)**
	Satisfaction with commuting**	**-0.110 (<0.001)**	-0.060 (0.127)	-0.084 (0.097)	**-0.092 (<0.001)**
	Satisfaction with time use**	**-0.169 (<0.001)**	**-0.131 (<0.001)**	**-0.109 (0.001)**	**-0.148 (<0.001)**
	Financial well-being	**0.077 (<0.001)**	**0.123 (<0.001)**	**0.098 (0.001)**	**0.093 (<0.001)**
	Gender	**0.149 (0.002)**	0.107 (0.120)	0.109 (0.216)	**0.128 (<0.001)**
	Age	0.003 (0.159)	0.004 (0.175)	**0.009 (0.006)**	**0.004 (<0.001)**
	R^2	0.164	0.142	0.123	**0.143**

Response variables	Predictors	Wave 1 (W1) N=1,336	Wave 2 (W2) N=673	Wave 3 (W3) N=518	Constrained (Pooled)
Goodness-of-fit measures	Chi-sq (df)	236.458 (141)			146.826 (47)
	CFI; TLI	0.981; 0.967			0.979; 0.965
	RMSEA; SRMR	0.028; 0.018			0.029; 0.015
	AIC; BIC	42,064.65; 42,817.34			42,059.26; 42,310.15

* The table presents the parameter estimate and in brackets the significance values.
** Satisfaction with commuting and time spent are measured on scales between 1 and 5, where 1 corresponds to "extremely satisfied". Significant differences are highlighted in bold-face font.

Satisfaction with commute and overall life satisfaction

The ability to WFH has increased employees' control over their daily routines, improving work-life balance and thus well-being and life satisfaction. This was achieved through reallocating travel costs and time towards productive activities and personal, caring, or recreational activities. The new hybrid model of WFH has resulted in a significant reduction in commuting, with an average time saving of 77 minutes per week. Respondents reported that while most of this time was used to work longer hours, other activities were now made possible, including exercise and undertaking errands in the local area, greater participation in family life (such as taking children to school, accompanying a parent to medical appointments, etc.), and more recreational activities. Yet, WFH has not had the same effect for all respondents, some considering that the interference between home and work activities has caused conflict. While overall, those with higher levels of WFH reported high levels of overall satisfaction, the direct association between percentage WFH and overall satisfaction is negative, primarily driven by the mandated WFH in the first wave of the survey W1, following the lockdowns. Life satisfaction was found to be higher among females and older individuals, exhibiting positive associations with all dimensions of life. However, it was not significantly correlated with the percentage of time spent WFH across all time periods. Also, as anticipated, limited influence on where to work eroded overall satisfaction, which signals the key role of flexibility and autonomy. Commuting and daily activities also significantly impacted life satisfaction, and these were significantly linked to each other. When employees are satisfied with their time allocation, they are also satisfied with their commute, which in turn has a positive effect on their overall life satisfaction. Although not significant in the SEM model, the hybrid occupations displayed the lowest overall satisfaction, possibly indicative of the additional pressures when juggling work and personal lives. Yet, hybrid occupations enjoyed better commutes with higher satisfaction.

4.5 Differences across waves

The main paths of the conceptual model show significant similar effects in all three waves. Also, the higher the level of flexibility and influence of the employee to choose the location, the higher the overall life satisfaction.

In the relation between commuting frequency and duration, the number of stops was not significant in each period, although the signs have not changed. Similarly, the negative relations between the proportion of WFH and satisfaction with commute and overall life satisfaction were not significant in W2 and W3 and were driven primarily by the W1 data. Potential explanations include the substantially higher sample size in the first wave, as well as slightly stricter conditions for isolation and work than in W2 and W3. The gender and age associations with overall life satisfaction were not significant in each period, and they varied in magnitude.

5 Summary and conclusions

This paper reports on the associations between the extent of WFH, individual circumstances, commuting behaviour, and the satisfaction with travel and overall satisfaction experienced by Perth residents during COVID-19 (2021-2022), using a multigroup SEM model estimated with longitudinal data from three waves.

Like other parts of Australia and the world, the COVID-19 pandemic has changed commuting behaviour in Perth, WA, primarily because of working practices (Eliasson, 2021; Hensher et al., 2021; Currie et al., 2021). Despite an overall increase in WFH and a decrease in commuting, work and transport patterns remained relatively stable across survey waves. This stability is attributed to Perth's unique context (including minimal lockdowns at the beginning of the pandemic), due to closed borders and almost 'normal' activity during the pandemic.

Although WA had and continues to have the lowest average WFH rate across Australia (16%), there is a manifest preference for increasing it (>29%), suggesting WFH is likely here to stay *("WFH is unlikely to be a temporary phenomenon"*, Hensher et al., 2021, p. 180). This is particularly visible for 'flexible' occupations and industries, and consistent with their WFH experience. However, the trend is expected to continue in the future for all types of employees.

In Perth, most respondents worked at the workplace with minimal control over work location, and less than 10% worked exclusively from home. Those in frontline occupations had the highest commute rates, while respondents in industries most amenable to WFH had the highest percentage of WFH. Paid hours increased by ~3 hours/week over the three waves, signalling 'back-to-normal' conditions in 2022, the reopening of many businesses, and a return to office and FT work.

Commute frequency decreased as the percentage of WFH increased, and Mondays, Fridays, and, more recently, Thursdays had the highest WFH. Pre-COVID commuting 'habits' strongly predicted 'last week's commute. PT use decreased, whereas car use increased, albeit the mode share changes were not statistically significant. Commute duration increased by 3-4 min (one-way), but the commuting distance did not. The overall weekly commute distance and time dropped, particularly for those working 'mostly at home'. The overall reduction in distance travelled was also found by Rafiq et al. (2022, p. 35).

Commute duration was mainly predicted by commuting distance and number of stops and was inversely related to car use. Number of stops, free parking, and car ownership represented the main predictors of commuting mode. Satisfaction with commuting and overall satisfaction/well-being point towards flexibility in organising daily routine, and choice of work location, after controlling for socio-demographics.

The findings were consistent across waves, and the SEM allowed for joint evaluation of the influences, giving more credence to the results. Even when the results were not statistically significant, the sign did not change over time.

Key lessons are that hybrid arrangements will continue, reducing commuting frequency, even if not at the same rate as in other Australian cities. From a policy perspective, encouraging WFH flexibility generates broad social benefits by allowing workers to convert commuting time into more constructive activities, benefiting not only these employees through improved work-life balance and higher productivity, but also all workers by reducing congestion and travel times for others, enhancing overall well-being and efficiency, with the possibility of deferring future investment into infrastructure. While WFH offers potential travel time savings, these benefits could be diminished by rebound effects, where commuters use the saved time (e.g., reorganising the daily routine) for additional trips during peak hours (e.g., shopping, personal business, recreation). The rebound effect could erode the benefits of reduced travel on the transport network and offset the expected reduction in congestion (Huang et al., 2022; Hensher et al., 2023) if the transport modes remain motorised. Monitoring the extent of this rebound effect is essential to ensure that

the full travel-related benefits of WFH are realised and to inform transport planning and policy adjustments accordingly.

Greater organisational flexibility, particularly in allowing employees to have control over WFH decisions, can significantly enhance satisfaction, leading to positive effects on both productivity and well-being. In contrast, forced isolation at work may undermine these benefits, potentially resulting in negative outcomes (Knight et al., 2022).

As with any study, there are limitations to consider. The attrition rate affected our ability to conduct a true longitudinal examination with a large sample, as no replacement or independent samples were used. While MANOVA analysis indicated no significant differences in socio-demographic characteristics across waves, changes in work and commuting patterns were observed. Analysing the subsample of respondents who completed all three waves suggests that these changes were primarily due to external restrictions rather than sample attrition (i.e., respondents who dropped out of the study having distinct characteristics). However, the reduced sample size in W3 constrained the complexity of the models that could be applied, particularly in examining differences by industry, occupation, household type, and other subgroups.

For future research, longitudinal studies of travel and time-use, particularly those capturing post-pandemic trends, should become standard practice, supported by government departments and agencies. This is particularly relevant as traditional transport planning relies on relatively stable commuting patterns, but the rise of WFH and hybrid work introduces great unpredictability. Despite the long interval between national Census collections (five years in Australia), integrating additional variables from the Census could improve trend monitoring and reduce this uncertainty, while providing a richer contextual understanding.

Follow-up surveys/additional data collection would allow for the application of latent growth models, offering deeper insights into long-term trends in remote work, travel behaviour, and subjective well-being. Expanding the study to include more granular data on industry, commuting flexibility, and evolving workplace policies could further enhance understanding of these relationships.

Finally, there is an urgent need to rethink transport policy and infrastructure planning in light of WFH-induced uncertainty. Future research could explore how infrastructure investment decisions responding to these changing dynamics of flexible work arrangements (e.g., parking policies, active and shared mobility) will affect WFH, enhance benefits for individuals, as well as catalyse broader changes for urban form.

Considering the positive implications of WFH and the desire to increase it in the future, as well as the willingness of many employees to trade a portion of their salary for the flexibility (Vij et al., 2023; Nagler et al., 2024) to support a resilient and high-performing workforce, our results advocate for embedding flexible and hybrid work arrangements as standard practice. Beyond preference, remote work has been linked to improved job satisfaction, reduced stress, and enhanced work-life balance, particularly for women. To maximise these well-being gains, targeted support for setting boundaries, fostering virtual social connection, and managing workload expectations is key. At the same time, empowering teams with greater autonomy over when and how they work can boost productivity and intrinsic motivation. Together, these practices not only improve daily work but also strengthen retention and attract talent to organisations.

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Data Access Statement

The data supporting the findings of this study are not publicly available because they contain sensitive respondent information and are subject to ethical, legal and funder-imposed restrictions. Enquiries about the dataset metadata may be directed to doina.olaru@uwa.edu.au.

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Author and Contributor Statement

Doina Olaru: Conceptualization, Data Curation, Methodology, Formal Analysis, Validation, Writing - Original Draft, Writing - Review & Editing; Brett Smith: Conceptualization, Methodology, Formal Analysis, Writing - Original Draft, Writing - Review & Editing; Tristan W. Reed: Conceptualization, Data Curation, Methodology, Visualization, Writing - Original Draft, Writing - Review & Editing; Sharon Biermann: Conceptualization, Writing - Original Draft, Writing - Review & Editing, Resources, Project administration, Funding Acquisition.

Use of AI

During the preparation of this work, the authors did not use AI.

Conflict Of Interest (COI)

There is no conflict of interest.

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Appendix

Appendix presents the measurement items for the various scales of satisfaction and their descriptive statistics.

Satisfaction with the commute

- Pairs of adjectives or statements on a semantic differential scale, from the highest/most to lowest/most negative level (selected from Ettema et al., 2010; de Vos et al., 2015; Singleton, 2018).
- The respondents were asked the question "*Reflecting on the **last commute**, to what extent do you agree with the following statements?*". The statements are presented in Table 5.

Table 5. Satisfaction with the commute

Item's ends of the scale			Factor loading*
From		To	
I am completely satisfied with my last commute	…	I am not satisfied at all with my last commute.	0.830
My commute was the best I can think of	…	My commute was the worst I can think of.	0.753
The positive aspects of the commute outweigh the negative aspects	…	The negative aspects of the commute outweigh the positive aspects.	0.761
The commute arrangements worked very well	…	The commute arrangements did not work at all.	0.811
I enjoyed my commute very much	…	I did not enjoy my commute at all.	0.737

* Note: AVE = 68.5% of the variance explained. The best score was for "the commute arrangements worked very well" (1.60) and the lowest score was for "enjoyment" (0.85). Overall satisfaction had an average of 1.3 (SD = 0.88).

Life satisfaction SWL

- Likert-type scale with seven levels (Diener et al., 1985)
- The respondents were asked the following "*In this section, we would like to ask you some **general questions about your life**. Using the scale below, indicate your agreement or disagreement with each statement. Please be open and honest in your responses; there are no right or wrong answers. We are interested in you as an individual and how you perceive your life.*". The questions are presented in Table 6.

Table 6. Life satisfaction SWL

Item of the scale	Factor loading*
In most ways my life is close to my ideal.	0.830
The conditions of my life are excellent.	0.753
I am satisfied with my life.	0.801
So far, I have gotten the important things I want in life.	0.811
If I could live my life over, I would change almost nothing.	0.737

* Note: AVE = 70% of the variance explained. The best score was for "I have gotten the important things I want in life" (4.85), and the lowest score was for "I would change almost nothing" (3.87). Overall satisfaction had an average of 4.53 (SD = 1.22).

Anxiety and depression

- The degree to which individuals worry, feel anxious, and/or feel depressed, down, or hopeless (The PHQ-4 scale, with 0=not at all; 4=nearly every day) (Kroenke et al., 2009)
- The respondents were asked the question "*Over the **last two weeks**, how often have you been **bothered by the following problems**?*". The problems are presented in Table 7.

Table 7. Anxiety and depression

Item of the scale	Factor loading*
Feeling nervous, anxious or on edge.	0.856
Not being able to stop or control worrying.	0.867
Feeling down, depressed or hopeless.	0.878
Little interest or pleasure in doing things.	0.825

* Note: AVE = 73.4% of the variance explained. The best score was for "Feeling down, depressed, hopeless" (0.74), and the lowest score was for "Feeling nervous, anxious, or on the edge" (0.91). Overall anxiety and depression had an average of 0.82 (SD = 0.77).

Overall life satisfaction

- How content an individual feels with their life, in terms of what they have achieved, is considered a component of **thriving** – the degree to which individuals feel they are flourishing in life, including how purposeful life is, whether they have meaningful relationships with others, are engaged in daily activities, and feel competent (Chaves, 2021).
- Likert-type scale with seven levels (1 extremely disagree and 7 extremely agree) (Diener et al., 2009). The statements are presented in Table 8.

Table 8. Overall life satisfaction

Item of the scale	Factor loading*
I lead a purposeful and meaningful life.	0.795
My social relationships are supportive and rewarding.	0.787
I am engaged and interested in my daily activities.	0.799
I actively contribute to the happiness and well-being of others.	0.793
I am competent and capable in the activities that are important to me.	0.787
I live a good life.	0.804
I am optimistic about my future.	0.770
People respect me.	0.759

* Note: AVE = 61.9% of the variance explained. The best score was for "I live a good life" (5.53) and the lowest score was for "I lead a purposeful and meaningful life" (4.87). Overall satisfaction had an average of 5.15 (SD = 0.98).

Satisfaction with the time allocation

- Likert-type scale, seven levels (1 being extremely satisfied and 7 being extremely dissatisfied)
- The respondents were asked the question "*How **satisfied** are you with how you spent your time on a **typical workday last week**?*"

Satisfaction with the financial situation

- Likert-type scale, seven levels (1 being extremely dissatisfied and 7 being extremely satisfied)
- The respondents were asked to rate the statement "*I am satisfied with my overall financial situation.*"

Descriptive stats of the scales

Table 9 provides the average and standard deviations for the latent factor scores of the constructs presented above.

Table 9. Descriptive stats of the scales

Construct/item	Total	
	Mean	SD
Satisfaction with commuting*	1.30	0.88
Satisfaction with time use*	2.77	1.27
Life satisfaction SWLS	4.53	1.22
Thriving	5.15	0.98
Financial well-being	4.44	1.62
Anxiety and depression PHQ-4	0.82	0.77

* Reversed scales with 1 being the highest level (most satisfied) and 5 being the least.