

The COVID-induced work-from-home (WFH) experiment continues to play out in real time.

So far, much research has understandably focused on the productivity implications of this seismic shift in how we work.

In this piece, we look at how households are benefitting; focusing on the time and money saved when workers commute less, as well as the ability to work more hours or get a job.

We find that since COVID, people are commuting on average over 15 per cent less than pre-pandemic. People who work solely from home are also able to work 19.7 per cent more hours, when compared to those who do not work from home. We also find that since 2019, workforce participation has increased by 4.4 per cent.

Previous CEDA research has shown Australians value working from home and are willing to accept lower wages in return.¹

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Since 2020, Australians who undertake hybrid or fully-remote work earn 5.8 per cent less than otherwise similar people who cannot or do not WFH

This means someone on the average annual pay who works from home would earn around \$4400 less than someone who does not.

If that's what they're willing to give up, what do they gain?

Commuting time is reduced

Five years on from the pandemic, 36 per cent of Australians still regularly work from home, including approximately 60 per cent of professionals and managers.²

Working from home can bring many benefits to households, both tangible and intangible, including flexibility in the place and time of work, the ability to do chores or exercise, greater time spent with family and much more. But the clearest direct savings are from reduced time and money spent on commuting.

Recently published research using the Household, Income and Labour Dynamics in Australia (HILDA) survey estimates that Australians who worked from home *before the pandemic* spent on average 14 per cent less time commuting than those who didn't work from home.³

We looked at the most recent HILDA data to estimate the current impact of working from home on weekly commutes.

Our analysis shows working fully remotely is associated with a 4.25-hour reduction in commuting time per week. Those who work from home 50 per cent of the time spend 2.12-hours less commuting per week.

This means workers spend on average 3.4 hours or 15.7 per cent less time commuting each week than if they worked the same number of hours from the office.

Commuting less brings savings on public transport fares and fuel costs.

In addition to those savings there is also the time saved on commuting itself. We value that at \$110 per week or \$5308 for a 48-week working year, using the average hourly wage of Australians who work from home.

This is 21 per cent higher than the approximately \$4400 in wages lost by working from home. In other words, what workers might be losing in wages, they are gaining in reduced commute time.

Research consistently shows that avoiding the commute is a key benefit of WFH for workers.

And in households where one person works from home and another goes to the office, the whole household benefits from the time and money saved.

Combined with our previous research, this confirms employers, workers and households more broadly benefit from these arrangements.

Hours worked

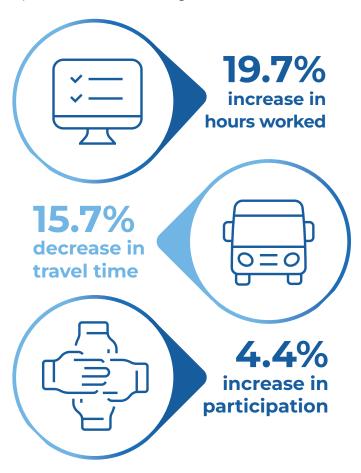
The data also shows people who work from home are working more.

This can be due to now being able to add an extra day of work where previously unable to do so, or because people are using the time gained to get more work done.

We find people who do all (100 per cent) of their hours from home, work 19.7 per cent more hours in total per week compared with people who do not work from home. People who WFH only half (50 per cent) of the time work 9.35 per cent more hours per week.

This could equate to up to \$179 per week or \$9344 per year based on the average wage of Australians who WFH. It should be noted, however, that people are not always compensated for additional hours worked.

There are also other reasons people decide to work additional hours, such as cost-of-living pressures and the strong labour market.



Australians are now more likely to have a job

People who face barriers to onsite work, such as mothers of young children, primary carers of a family member or people with an impactful health condition have long had lower rates of workforce participation.

Previous CEDA research has shown these groups have increased their participation in jobs that can work from home since the pandemic. While this showed that these groups had moved into WFH jobs, it didn't confirm whether their overall levels of participation had increased.

In this paper, we wanted to understand the impact of WFH on their workforce participation. In other words, were they more likely to have a job now because they can work from home?¹

Before the pandemic, being a mother to a child under four meant you were 21.6 per cent less likely to have a job than the average of all workers. In 2023, this had decreased to 17.15 per cent, meaning this group is more likely to be employed than before the pandemic (Figure 1).

Since the pandemic, Australia's jobs market has been surprisingly and persistently strong, pushing the overall workforce participation rate to historic highs of around 67 per cent according to ABS figures.

This has been driven by a range of factors including worker shortages, cost-of-living pressures and changes to childcare subsidies, as well as the widespread adoption of working from home. Participation data is also heavily procyclical, moving in line with economic conditions, which could further inflate the participation increase we observe.

To understand how working from home has helped increase participation, we modelled how participation would have changed from the period between 2017 and 2019 to 2023 if COVID hadn't happened and participation continued to move in line with demographic trends, and how the rate has actually changed over that period.

We find participation is 4.4 per cent higher than it would have been if the pre-COVID participation trend had continued.

This represents the upper estimate of the contribution working from home has had on the rise in participation and equates to around 615,407 more workers, based on ABS data from June 2023.4

While WFH has made a clear contribution to this increase, it is hard to definitively state how much of this number is directly caused by working from home.

Figure 1 - Probability of employment before and after COVID-19							
Year	Mother of child/ren under four	Impactful health condition	Carer	Bachelor's qualification	Male	Female	
2017-2019	-21.6%	-18.4%	-16.9%	26.2%	4.7%	-4.7%	
2022-2023	-17.1%	-15.9%	-15.6%	26.9%	4.3%	-4.3%	

Source: CEDA analysis of Household, Income and Labour Dynamics in Australia (HILDA) Wave 23.

ⁱ This research considers people aged 18-65.

ii This estimation does not factor in other broader labour market changes such as changes to childcare subsidies.

Working from home is a win-win

The analysis in this paper focuses on the impacts of WFH for workers, households and the broader economy. For many it has been a clear win, making it easier for many Australians to find a job, keep a job or work more hours.

The biggest beneficiaries of this participation gain have been those who previously faced greater barriers to working such as women with children – in particular young children under four, people with impactful health conditions or disability, and carers.⁵

More broadly, the savings on time and money spent commuting and the increase in working hours bring additional benefits to workers and their households.

There are also unquantifiable household and wellbeing benefits from lower commute times and more time spent at home, such as the ability to get through household chores, see a doctor, exercise or do school pick-up or drop-off.

For employers, previous CEDA work has highlighted that hybrid working arrangements do not reduce productivity. We have also shown workers are willing to receive lower pay in exchange for this arrangement, which also benefits employers.

Employers are also enjoying financial and non-financial benefits from greater worker retention. A randomised control trial⁶ of 1600 workers by Stanford University Economics Professor Nicholas Bloom found employee resignations were reduced by a third if they could work from home.

As for downsides, there are likely to be some social costs of working from home that are unaccounted for here, such as reduced social connection and blurred boundaries between 'work' and 'home'. Continued focus is also required on management skills and strategies to optimise employee engagement, mental health and productivity as work from home arrangements continue to evolve.

In the absence of requirements to work from home such as during the pandemic lockdowns, people often make multiple tradeoffs to determine whether they prefer to work in the office or from home. At this stage, however, people appear to be prioritising the benefits they gain from working from home over the costs.

The widespread adoption of work from home remains relatively recent, and further trends will appear as more data and research is undertaken. The evidence so far shows us that the broad economic and social benefits of the working-from-home shift appear positive, and we should look towards maintaining these gains, even as the labour market softens.

Appendix: Methodology

Estimating the impact of working from home on commuting and hours works presents several selection and endogeneity issues. We try to minimise these by first using a Heckman two-stage adjustment to control for potential selection issues with use of health conditions, caring responsibilities, partner income and family structure as instruments.

The Heckman two-stage adjustment involves estimating a Probit model on the probability of labour force participation. From here, we take the Inverse Mills Ratio to control for selection effects when modelling working from home. The Probit model is specified as follows.

Using the Heckman two-stage adjustment changes our estimates marginally.

	Hours worked model	Commuting model
With Heckman adjustment	.197	-4.29
Without Heckman adjustment	.201	-4.301

After producing the inverse Mills ratio, we input this into a Two Stage Least Squares model. To address endogeneity concerns with our WFH per cent variable, we instrument using the interaction between the Dingle Neiman index and the year being later than 2020. This follows CEDA's previous work on the impact of working from home on wages.

We use this model to estimate **hours worked** and **average commute per week**.

To demonstrate how these changed labour market conditions have contributed to increased labour force participation, we take the probability estimates from the pre-COVID Probit model and apply them to Wave 23 of the HILDA data. There has been a significant societal shift post-COVID, with many things changing, including working from home.

HILDA DISCLAIMER

This paper uses unit record data from Household, Income and Labour Dynamics in Australia Survey [HILDA] conducted by the Australian Government Department of Social Services (DSS). The findings and views reported in this paper, however, are those of the author[s] and should not be attributed to the Australian Government, DSS, or any of DSS' contractors or partners. DOI: 10.26193/J4NSZO

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