



Teleworking in the COVID-19 Pandemic: Trends and Prospects

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The COVID-19 crisis created a sudden need for businesses and their employees to start or increase working from home. By facilitating teleworking from home, information and communication technologies (ICTs) have been crucial in allowing economic activities to endure and enabling a significant portion of individuals to continue earning incomes. This brief presents key information on how teleworking evolved during the first year of the COVID-19 pandemic (2020), with a particular focus on timely and high frequency data published by national statistical organisations, as well as evidence on how telework may evolve in the future.



Key findings

- All countries for which comparable data are available experienced increased rates of teleworking during the COVID-19 pandemic, though the extent of the increase varies widely.
- In Australia, France and the United Kingdom, 47% of employees teleworked during lockdowns in 2020. In Japan, which did not institute a nationwide lockdown, the teleworking rate increased from 10% to 28% between December 2019 and May 2020.
- Highly digitalised industries, including information and communication services, professional, scientific and technical services as well as financial services, achieved the highest rates of teleworking during the pandemic – over 50% of employees, on average.
- Teleworking rates during the pandemic were higher among workers in large firms than in small ones, reflecting lower digital uptake among small firms and their specialisation in activities less amenable to remote working.
- Workers with a higher level of qualifications were more likely to telework during the pandemic. In the United States, for instance, teleworking rates for individuals holding a Master's degree or a PhD were fifteen times higher than for the least qualified employees.
- In most countries for which data are available, teleworking rates during the pandemic were much higher for women than for men, although the gap was narrower in Denmark, Sweden and the United Kingdom.
- Perceived productivity at home appears strongly associated with the desire to work at home. However, while most businesses and individuals now expect a greater use of teleworking than before the pandemic, relatively few employees are likely to telework full time in the future.

Introduction

As the COVID-19 pandemic swept across the globe and social distancing was necessary to reduce contagion, many governments strongly encouraged or mandated minimising physical presence at work.

In response, a large number of businesses turned to digital technology to continue operating, with personnel working from home and using tools such as videoconferencing, cloud services and virtual private networks. Businesses that could leverage pre-existing telework capabilities, or rapidly adapt, were best equipped to make a relatively seamless switch to working from home and were best able to maintain production levels (OECD, 2020^[1]).

However, not all jobs can make the switch to teleworking. Indeed, it is estimated that only a minority of jobs can be done from home (Dingel and Neiman, 2020^[2]). In Australia, 89% of employees who did not telework reported the nature of job itself as the main reason for not teleworking. Further reasons included: 1) their employer not offering the option of working from home; 2) their home situation not being conducive for work; or 3) their home lacking access to the Internet or other proper equipment (Australian Bureau of Statistics, 2020^[3]).

This note, which is based on Ker, Montagnier and Spiezia (2021^[4]) brings together information on how teleworking progressed during the first year of the COVID-19 pandemic (2020), with a particular focus on timely and high frequency (e.g. monthly) data published by national statistical organisations. While the data presented here do not claim to exhaustively represent the situation across all OECD countries, they do provide useful and detailed insights. As social distancing rules have made “teleworking” synonymous with “working from home”, these two terms are used interchangeably for the purpose of this note.



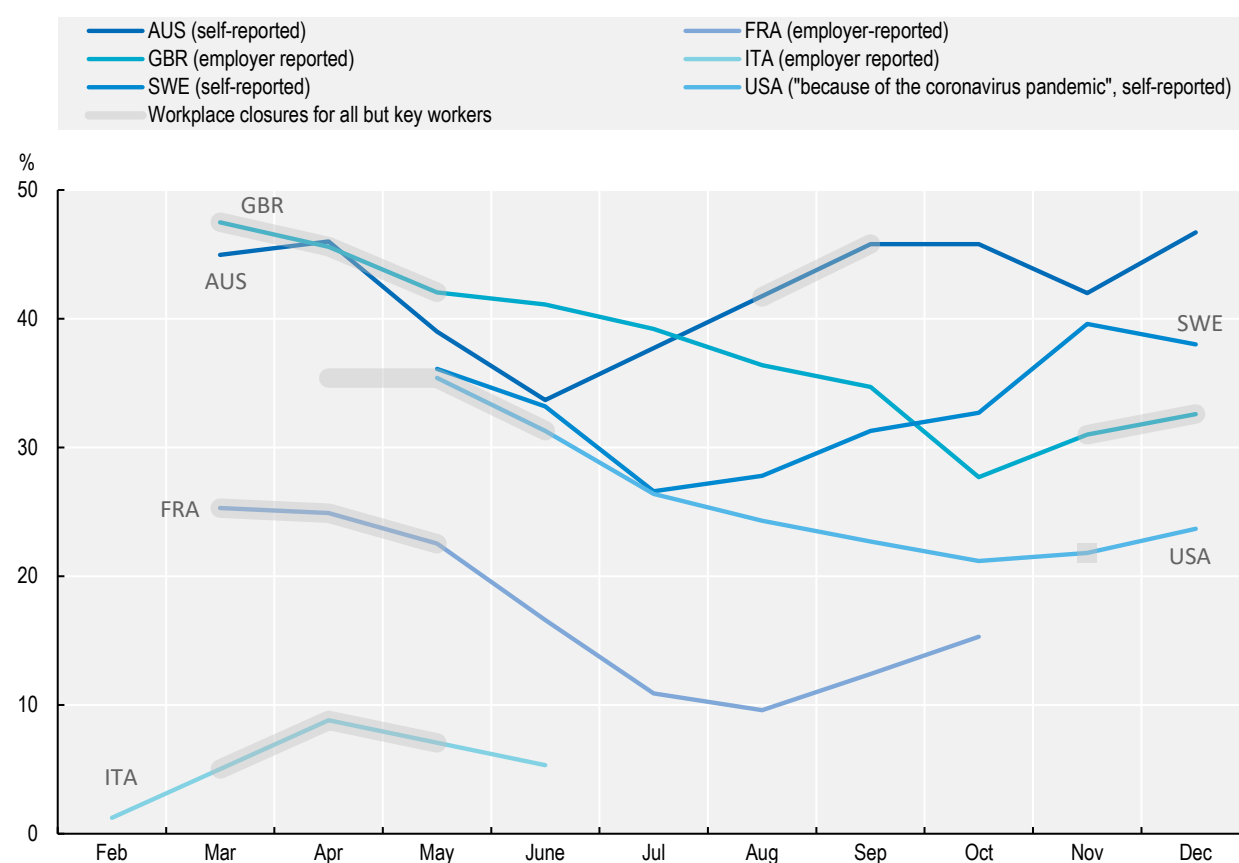
Measuring telework during the COVID-19 pandemic

The regular ICT surveys conducted in most OECD countries are commonly used to measure telework. However, as these surveys are typically undertaken once a year, many countries have drawn on more frequent surveys – among businesses or employees – to gain insights into teleworking during the COVID-19 pandemic.

Figure 1 shows monthly figures of the share of employees teleworking in several OECD countries over 2020, highlighting periods of workplace closures applied to all but key workers. School closures were also common around these times. In general, the share of employees teleworking increased around the times when workplace closures were mandated, though the regions and industries affected by these restrictions varied among countries and over time. This may help to explain why several countries saw falling teleworking rates even during periods with workplace closures.

Figure 1. Telework during the COVID-19 pandemic, 2020

Percentage of employed persons or employees



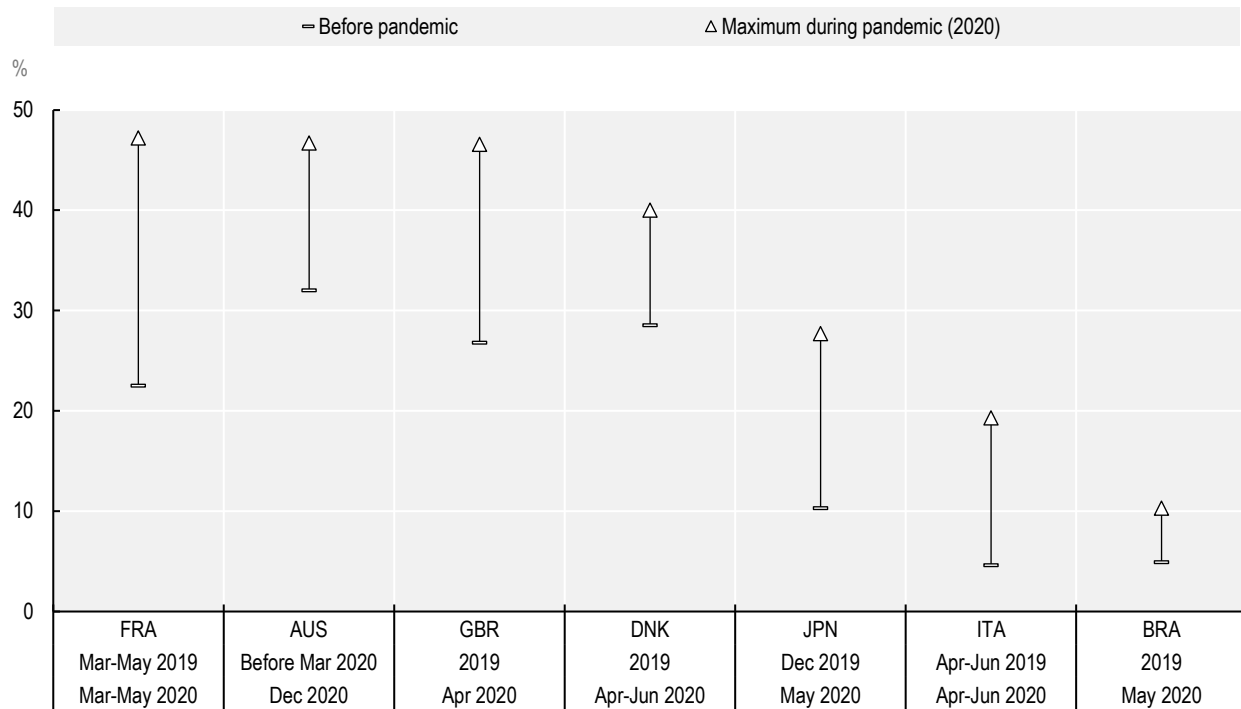
Source: OECD based on Australian Bureau of Statistics (2020^[5]), *Household Impacts of COVID-19 Survey*, <https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey>, DARES (2021^[6]), *l'Enquête Activité et conditions d'emploi de la main d'œuvre – Covid*, <https://dares.travail-emploi.gouv.fr/publications/activite-et-conditions-d-emploi-de-la-main-d-oeuvre-pendant-la-crise-sanitaire-119594>, ISTAT (2020^[7]), *Situation and perspectives of enterprises during the health emergency COVID-19*, <https://www.istat.it/it/archivio/244378>, ISTAT (2021^[8]), *Rilevazione sulle forze di lavoro*, <http://dati.istat.it>, Statistics Sweden (2020^[9]), *Labour Force Surveys*, <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/labour-market/labour-force-surveys/labour-force-surveys-lfs/>, Office for National Statistics (2020^[10]), *Business impacts of COVID survey*, <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofcovid19surveybicsresults>, U.S. Bureau of Labor Statistics (2020^[11]), *Supplemental data measuring the effects of the coronavirus (COVID-19) pandemic on the labor market*, <https://www.bls.gov/cps/effects-of-the-coronavirus-covid-19-pandemic.htm> and Ritchie et al. (2020^[12]), *Coronavirus pandemic (COVID-19)*, <https://ourworldindata.org/covid-school-workplace-closures>. See Ker, Montagnier and Spiezia (2021^[4]), "Measuring telework in the COVID-19 pandemic", <https://doi.org/10.1787/0a76109f-en> for further information on data sources and definitions.



All countries for which comparable observations are available experienced increased rates of teleworking during the COVID-19 pandemic, though the extent of the increase varies widely (Figure 2). Based on self-reported information – rather than the business-based series shown in Figure 1 – 47% of employees in France and the United Kingdom teleworked during the first lockdown periods (March-May 2020). Australia also reached the same rate by December 2020.

Figure 2. Increase in teleworking during the COVID-19 pandemic as reported by individuals

Percentage of employed persons or employees



Source: OECD based on Australian Bureau of Statistics (2020^[13]), *Household Impacts of COVID-19 Survey, December 2020*, <https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey/dec-2020>, Statistics Denmark (2020^[14]), AKU280A: *Employed with work at home by frequency, age and sex*, <https://www.statbank.dk/AKU280A>, INSEE (2020^[15]), *Durée travaillée et travail à domicile pendant le confinement : des différences marquées selon les professions*, <https://www.insee.fr/fr/statistiques/4801229>, ISTAT (2021^[8]), *Situation and perspectives of enterprises during the health emergency COVID-19*, <https://www.istat.it/it/archivio/244378>, Japan Cabinet Office (2021^[16]), *Under the influence of the new coronavirus infection: Under the influence of the new coronavirus infection*, https://www5.cao.go.jp/keizai2/manzoku/pdf/result2_covid.pdf, Office for National Statistics (2020^[17]), *Labour market survey - estimates of homeworking in the United Kingdom, April 2020*, <https://www.ons.gov.uk/file?uri=%2femploymentandlabourmarket%2fpeopleinwork%2femploymentandemployeetypes%2fdatasets%2fhomeworking%2fapril2020/finaltables.xlsx>, Solidarity Research Network (2020^[18]), “Coronavirus crisis brings changes to home-based work and telework. Digital divide leads to drop in income and reduces economic activity”, <http://www.iea.usp.br/pesquisa/nucleos-de-apoio-a-pesquisa/observatorio-inovacao-competitividade/boletim-oic-4-en> and Eurostat (2021^[19]), *European Labour Force Survey data*, <https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey>. See Ker, Montagnier and Spiezia (2021^[4]), “Measuring telework in the COVID-19 pandemic”, <https://doi.org/10.1787/0a76109f-en> for detailed information on data sources and definitions.

In France, teleworking more than doubled compared to one year before, increasing by 25 percentage points, while in the United Kingdom, teleworking in April 2020 was 1.8 times the level before the pandemic, i.e. a 20-percentage point increase. In Australia, teleworking in December 2020 was 1.5 times the level “before March 2020”, i.e. a 15-percentage point increase.

In Japan, which did not institute a nationwide lockdown in 2020, telework rates increased markedly from 10% in December 2019 to almost 28% in May 2020, although stayed lower than in the aforementioned countries.



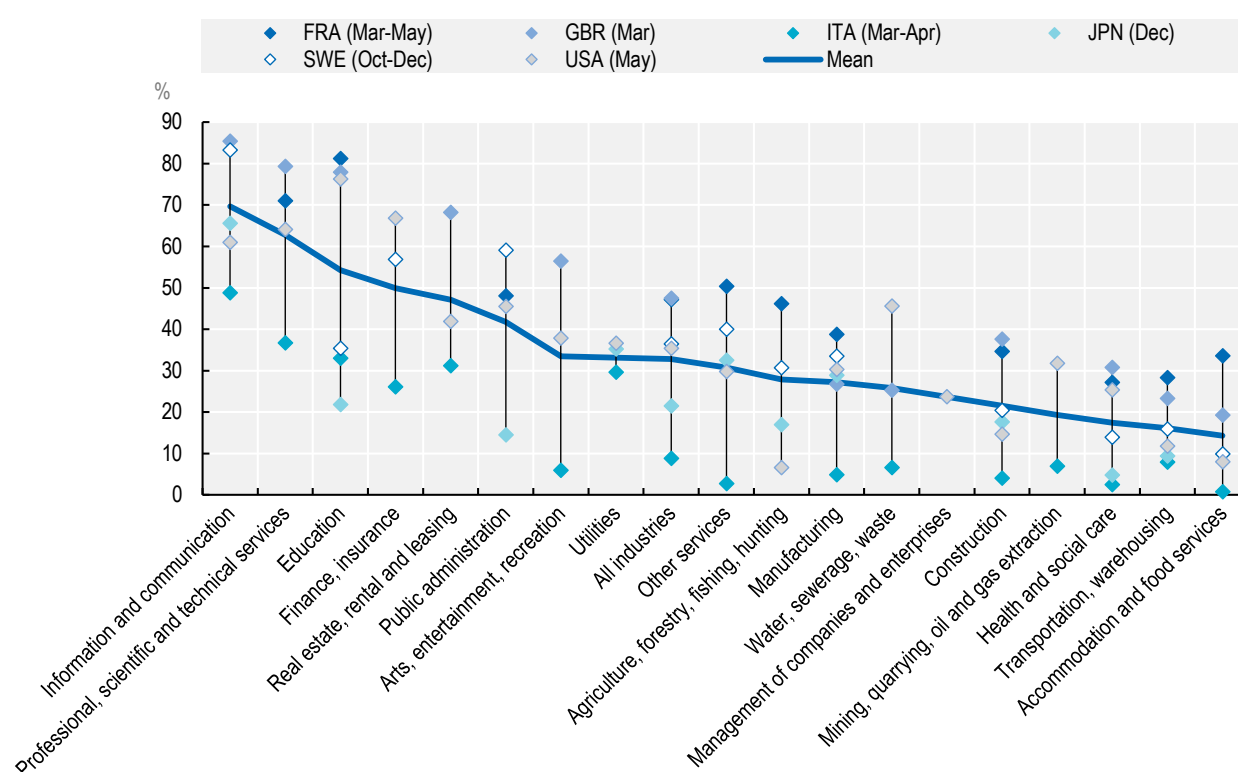
In Italy, teleworking rates in the second quarter of 2020 were over 4 times the level before the pandemic, increasing by 15 percentage points on an annual basis. Finally, teleworking in Brazil doubled from 5% in 2019 to over 10% in May 2020.

Although all of these figures are self-reported by employees, some of the observed cross-country variations may be due to different survey methods (see Ker, Montagnier and Spiezia (2021^[4]) for a discussion).

Differences in teleworking arise among industries and occupations due to their differing degrees of digitalisation. Figure 3 shows teleworking rates by industry at the time when each country's total teleworking rate reached its peak. While teleworking rates by industry vary significantly across countries, the trends are generally similar. Industries associated with physical production, such as health and social care, construction, transport and warehousing as well as accommodation and food services had relatively low rates of teleworking during the pandemic. By contrast, industries that were already highly digitalised (OECD, 2019^[20]), including information and communication services, professional, scientific and technical services as well as financial services achieved much higher rates of teleworking – over 50% of employees, on average. Public administration, which would be expected to “lead by example” in an environment where private sector employers are being encouraged to let employees work from home, also reached 50% teleworking, on average.

Figure 3. Teleworking peaks during the COVID-19 pandemic, by industry

Percentage of employed persons



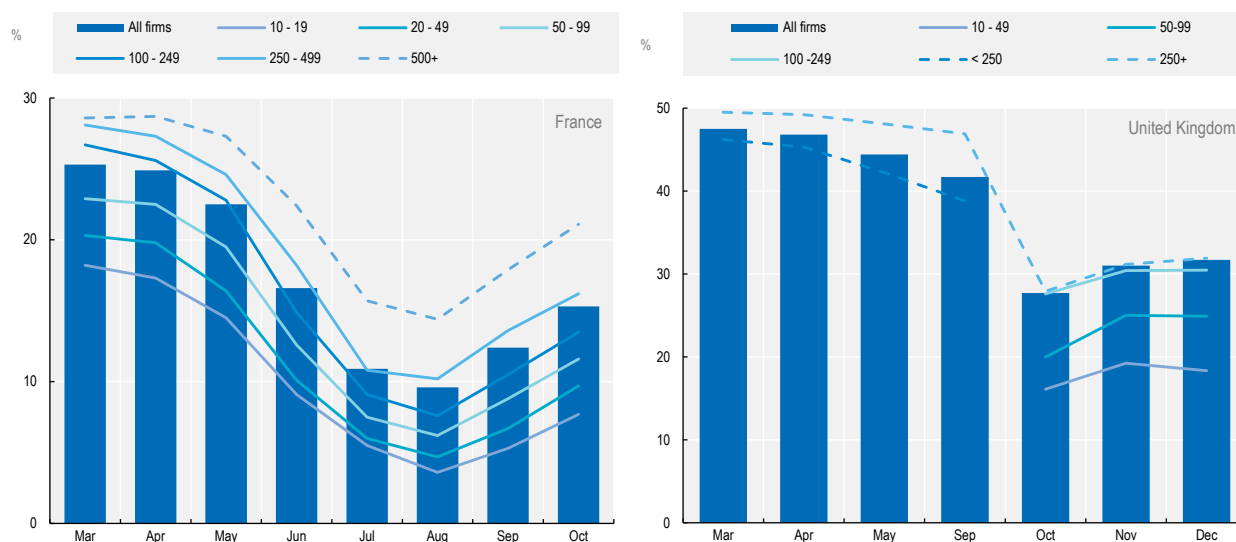
Source: OECD based on DARES (2021^[6]), *Enquête Activité et conditions d'emploi de la main d'œuvre – Covid*, <https://dares.travail-emploi.gouv.fr/publications/activite-et-conditions-d-emploi-de-la-main-d-oeuvre-pendant-la-crise-sanitaire-119594>, Office for National Statistics (2020^[10]), *Business impacts of COVID survey*, <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofcovid19surveybicsresults>, ISTAT (2020^[7]), *Situation and perspectives of enterprises during the health emergency COVID-19*, <https://www.istat.it/it/archivio/244378>, Japan Cabinet Office (2021^[16]), *Under the influence of the new coronavirus infection: Under the influence of the new coronavirus infection*, https://www5.cao.go.jp/keizai2/manzoku/pdf/result2_covid.pdf, Statistics Sweden (2020^[9]), *Labour Force Surveys*, <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/labour-market/labour-force-surveys/labour-force-surveys-lfs/> and U.S. Bureau of Labor Statistics (2020^[11]), *Supplemental data measuring the effects of the coronavirus (COVID-19) pandemic on the labor market*, <https://www.bls.gov/cps/effects-of-the-coronavirus-covid-19-pandemic.htm>. See Ker, Montagnier and Spiezia (2021^[4]), “Measuring telework in the COVID-19 pandemic”, <https://doi.org/10.1787/0a76109f-en> for further information on data sources and definitions.



In general, teleworking rates during the pandemic were higher among workers in large firms than in small ones, as illustrated by the trends in France and the United Kingdom (Figure 4). These differences are likely to reflect the gap in digital technology uptake in favour of large firms as well as the concentration of small firms in sectors that are less amenable to teleworking, e.g. tourism, restaurants or small retailers (OECD, 2019^[20]).

Figure 4. Teleworking in France and the United Kingdom in 2020, by firm size

Percentage of employees



Source: OECD based on DARES (2021^[6]), *Enquête Activité et conditions d'emploi de la main d'œuvre – Covid*, <https://dares.travail-emploi.gouv.fr/publications/activite-et-conditions-d-emploi-de-la-main-d-oeuvre-pendant-la-crise-sanitaire-119594> and Office for National Statistics (2020^[10]), *Business impacts of COVID survey*, <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofcovid19surveybicsresults>. See Ker, Montagnier and Spiezia (2021^[4]), "Measuring telework in the COVID-19 pandemic", <https://doi.org/10.1787/0a76109f-en> for further information on data sources and definitions.

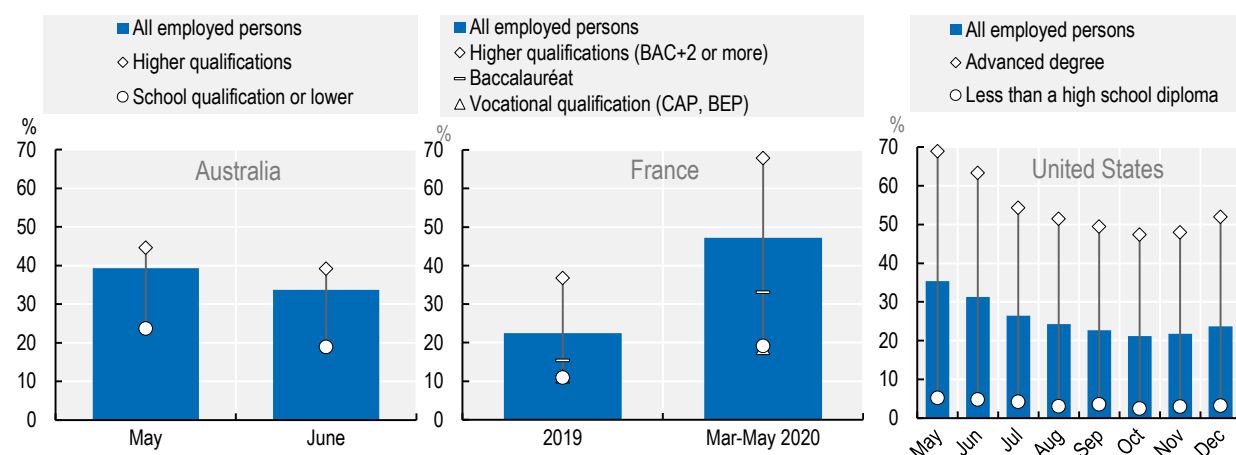
Workers with a higher level of qualifications were more likely to telework during the COVID-19 pandemic (Figure 5). In Australia, in May and June 2020 teleworking rates for individuals with professional qualifications or university degrees were twice that of individuals with lower qualifications. In France, almost 70% of individuals with qualifications beyond compulsory schooling reported working from home during the first national lockdown (March-May 2020) against just 20% for those with lower educational attainments. In the United States, people holding a Master's degree or a PhD were fifteen times more likely to telework during the COVID-19 pandemic than the least qualified employees.

In most countries for which data are available, women have been more likely to telework than men during the pandemic (Figure 6). In Australia, the proportion of women teleworking in May 2020 was 12 percentage points higher than the proportion of men. In Italy, where teleworking rates in 2019 were slightly higher for men than for women, the share of women teleworking clearly outstripped that of men in 2020. Similarly, in France, where the teleworking rate in 2019 was equal for men and women (22%), the share of women teleworking during the first national lockdown in March-May 2020 increased to 52% compared to 43% for men. The gap was much narrower in Denmark, Sweden and the United Kingdom, although teleworking increased faster among women between 2019 and 2020 in Denmark. One possible explanation for these trends is that women may have been more likely to take up teleworking as a solution to childcare during school closures at that time.



Figure 5. Teleworking during the COVID-19 pandemic, by educational attainment

Percentage of persons employed or employees



Source: OECD based on Australian Bureau of Statistics (2020^[5]), *Household Impacts of COVID-19 Survey*, <https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey>, INSEE (2020^[15]), *Durée travaillée et travail à domicile pendant le confinement : des différences marquées selon les professions*, <https://www.insee.fr/fr/statistiques/4801229> and U.S. Bureau of Statistics (2020^[11]), *Supplemental data measuring the effects of the coronavirus (COVID-19) pandemic on the labor market*, <https://www.bls.gov/cps/effects-of-the-coronavirus-covid-19-pandemic.htm>. See Ker, Montagnier and Spiezia (2021^[4]), "Measuring telework in the COVID-19 pandemic", <https://doi.org/10.1787/0a76109f-en> for further information on data sources and definitions.

Figure 6. Teleworking during the COVID-19 pandemic, by gender

Percentage of employed persons



Source: OECD, based on Australian Bureau of Statistics (2020^[5]), *Household Impacts of COVID-19 Survey*, <https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey>, Statistics Denmark (2020^[14]), *AKU280A: Employed with work at home by frequency, age and sex*, <https://www.statbank.dk/AKU280A>, INSEE (2020^[15]), *Durée travaillée et travail à domicile pendant le confinement : des différences marquées selon les professions*, <https://www.insee.fr/fr/statistiques/4801229>, Office for National Statistics (2020^[17]), *Labour market survey - estimates of homeworking in the United Kingdom, April 2020*, <https://www.ons.gov.uk/file?uri=%2femploymentandlabourmarket%2fpeopleinwork%2femploymentandemployeetypes%2fdatasets%2fhomeworking%2fapril2020/finaltables.xlsx> and Statistics Sweden (2020^[9]), *Labour Force Surveys*, <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/labour-market/labour-force-surveys/labour-force-surveys-lfs/>. See Ker, Montagnier and Spiezia (2021^[4]), "Measuring telework in the COVID-19 pandemic", <https://doi.org/10.1787/0a76109f-en> for further information on data sources and definitions.



Outlook for teleworking

The COVID-19 pandemic has led to a step change in the prevalence of teleworking across many businesses and employers. Is this increase only temporary or will it last in the future? The answer is likely to depend on the balance between the pros and cons of teleworking for both workers and businesses.

While more widespread telework has the potential to increase productivity, improve work-life balance and reduce emissions, its overall impact is ambiguous (OECD, 2020^[21]).

Statistics Canada (2021^[22]) found that over 90% of “new teleworkers”, i.e. teleworkers who did not usually work from home before the COVID-19 pandemic, reported being at least as productive at home as they were previously at their usual place of work. This share holds for women and men alike, regardless of age, educational attainment, marital status, parenthood, industry or occupation. The remaining 10% reported accomplishing less work per hour while at home than at their usual workplace due to a lack of interaction with co-workers, family care commitments, inadequate workspace or IT equipment.

These findings are broadly in line with academic/industry studies in several other countries. Barrero, Bloom, and Davis (2020^[23]) found that 85% of teleworkers in the United States were at least as efficient working at home during the COVID-19 pandemic as they had been working on employer premises beforehand. In the United Kingdom, 71% of businesses surveyed said that homeworking during the COVID-19 pandemic had no detrimental impact on productivity and, within those, 33% said productivity had improved (Gascoigne, 2020^[24]).

Employees in Japan reported a mixture of benefits and disadvantages of teleworking experienced during the pandemic, many of which are likely to impact productivity (Japan Cabinet Office, 2021^[16]). Four out of five teleworkers highlighted not needing to commute as a key benefit but only 14% of respondents felt that teleworking makes it easier to generate new ideas. Around one-third of respondents reported difficulty in consulting and communicating within the company and with partners as key challenges of teleworking during the pandemic.

There is some evidence that teleworking can be associated with longer working hours and more frequent work in the evening and during weekends (Eurofound and ILO, 2017^[25]; Messenger, 2019^[26]), which may negatively impact employees’ well-being (and potentially their productivity).

In Canada, 35% of all “new teleworkers” reported working longer hours, with managers doing so in greater proportions (51%). In contrast, only 3% of all new teleworkers reported working shorter hours (Statistics Canada, 2021^[22]). It is likely that working longer hours offsets at least some of the potential benefits of teleworking from home, e.g. the time saved on commuting (Gascoigne, 2020^[27]), and makes it challenging to achieve a good work-life balance. In Japan, 15% of respondents highlighted overwork due to the blurring of boundaries between work and life as a disadvantage of teleworking during the pandemic (Japan Cabinet Office, 2021^[16]).

The Australian Bureau of Statistics asked individuals which features of life under COVID-19 they would most like to see continue afterwards. In July 2020, 25% of respondents wanted to continue working or studying from home (Australian Bureau of Statistics, 2020^[28]). By November 2020, the share of people wanting to continue working or studying from home had increased to 30%, with a higher proportion of women (36%) than men (26%) (Australian Bureau of Statistics, 2020^[29]).

In Japan, 20% of teleworkers in December 2020 reported the desire to telework full-time in the future and a further 33% wanted to be “telework-centred” going forward. Only 18% stated that they wish to use telework irregularly (Japan Cabinet Office, 2021^[16]).

The findings of a survey among 15,000 people in the United States suggest that share of work carried out from home may increase from 5% before the pandemic to 22% afterwards (Barrero, Bloom and Davis, 2020^[23]).

In Canada, the share of businesses expecting to offer at least some of their employees the opportunity to telework when the COVID-19 pandemic is over increased from 34% to 59% between May and August 2020 (Statistics Canada, 2020^[30]). This is echoed in Australia where less than 30% of businesses had staff



teleworking before the pandemic but one-third of firms expected to have employees teleworking once restrictions are lifted and conditions stabilise (Australian Bureau of Statistics, 2020^[31]).

However, relatively few employees may be expected to telework full time. In the United Kingdom, 63% of employers surveyed planned to introduce or expand “hybrid working” to some degree after the pandemic, with 45% planning to introduce or expand the use of total homeworking, i.e. some employees spending 100% of work time at home, to some degree (Gascoigne, 2020^[24]).

In Canada, 80% of new teleworkers indicated that they would like to work at least half of their hours from home once the pandemic is over. Only 15% would prefer to work all of their hours from home after the pandemic (Statistics Canada, 2021^[22]).

Importantly, perceived productivity at home appears strongly associated with the desire to work at home. Workers who reported accomplishing more work per hour while working from home indicated that they would prefer working most or all of their hours at home much more often (57%) than all other workers (30%) (Statistics Canada, 2021^[22]).

Businesses will need to adapt their working practices to address the challenges associated with teleworking. Relevant measures include encouraging boundary-setting and routines to prevent overwork; ensuring that managers have the skills and tools needed to effectively co-ordinate tasks and communicate; paying special attention to creativity, brainstorming, problem-solving tasks, and informal learning; and facilitating networking, inter-team relationships, and cohesion regardless of work location (Gascoigne, 2020^[24]).

Governments should also take appropriate actions to sustain the benefits from telework into the future, by ensuring that businesses and their employees have the flexibility they need to drive economic and social recovery and achieve improved well-being. Relevant policies to achieve these goals pertain to three main areas: supporting complementary investments; helping surmount cultural and legal hurdles; and mitigating potential side effects (OECD, 2020^[21]).

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