

Study: Working from home: Productivity and preferences

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The impact of telework on workers' productivity and preferences

A little over a year ago, Canada entered an economic shutdown that substantially altered the work arrangements of thousands of workers. At the beginning of 2021, 32% of Canadian employees aged 15 to 69 worked most of their hours from home, compared with 4% in 2016.

As noted in the most recent release of the [Labour Force Survey](#), 3.1 million Canadians were working from home temporarily in response to the COVID-19 pandemic as of February 2021.

Since Canadian workers and their employers have now made intensive use of telework for several months, a few questions are worth investigating: to what degree are teleworkers more or less productive, what are the main barriers to productivity, and how many Canadians would prefer working from home once the COVID-19 pandemic is over?

A new study released today sheds light on these questions, using supplementary questions added to the February 2021 Labour Force Survey. The focus is on new teleworkers, i.e., employees who usually worked outside the home before the COVID-19 pandemic but who worked most of their hours at home during the week of February 14 to 20, 2021.

To ensure that these new teleworkers can provide a valid assessment of how productive they are now, at home, relative to their usual place of work, the analysis is restricted to those who have been with the same employer since at least March 2019, i.e., at least one year prior to the economic shutdown of mid-March 2020.

The vast majority of new teleworkers report being at least as productive at home as they were at their usual place of work

Of all new teleworkers, 90% reported being at least as productive, i.e., accomplishing at least as much work per hour, at home as they were previously at their usual place of work.

More than half (58%) reported accomplishing about the same amount of work per hour, while roughly one-third (32%) reported accomplishing more work per hour. The remaining 10% mentioned that they accomplished less work per hour while working at home than they did previously at their usual place of work.

The likelihood of accomplishing more work per hour varied across industries. For example, the percentage of new teleworkers who reported doing more work per hour was relatively high in public administration (41%) and health care and social assistance (45%). In contrast, the corresponding percentage amounted to 31% in goods-producing industries.

Regardless of age, educational attainment, marital status, industry, occupation, and whether or not they have children, men and women tended to report to a similar extent being at least as productive at home as they were in the past at their usual place of work.

These findings are in line with those of a recent U.S. study (Barrero, Bloom and Davis 2020), which shows that 85% of U.S. workers report being at least as efficient at home during the COVID-19 pandemic as they were on business premises before the pandemic.

Whether the productivity assessments made by Canadian workers regarding telework match those of their employers is currently unknown.



Table 1
Percentage of new teleworkers who reported accomplishing at least as much work per hour as they did when they were working outside the home, by sex and selected characteristics

| | Both sexes | Men | Women |
|--|-------------|-------------|-------------|
| | % | | |
| Overall | 90.4 | 90.3 | 90.6 |
| Age | | | |
| 15 to 34 | 91.3 | 90.4 | 92.2 |
| 35 to 50 | 89.9 | 89.7 | 90.1 |
| 51 to 64 | 90.5 | 91.3 | 89.8 |
| Education | | | |
| No postsecondary education (PSE) | 92.3 | 92.5 | 92.1 |
| PSE below bachelor's degree | 90.7 | 90.9 | 90.6 |
| Bachelor's degree | 92.3 | 91.1 | 93.4 |
| Above bachelor's degree | 86.5 | 87.7 | 85.3 |
| Marital status and presence of children | | | |
| Married or common-law, with children | 90.2 | 91.2 | 89.1 |
| Married or common-law, without children | 91.3 | 89.4 | 93.0 |
| Not married or common-law, with children | 95.3 | 99.5 | 94.1 |
| Not married or common-law, without children | 88.9 | 88.5 | 89.3 |
| Industry | | | |
| Goods-producing industries | 91.2 | 92.7 | 89.3 |
| Trade, transportation and warehousing | 92.2 | 89.8 | 95.2 |
| Finance and insurance | 94.3 | 92.7 | 96.0 |
| Professional, scientific and technical services | 90.2 | 91.4 | 88.6 |
| Educational services | 86.6 | 82.9 | 88.6 |
| Health care and social assistance | 91.1 | 96.8 | 89.6 |
| Public administration | 90.8 | 91.9 | 90.0 |
| Other | 86.8 | 85.3 | 88.0 |
| Occupation | | | |
| Management | 93.3 | 91.7 | 95.5 |
| Business, finance, and administration | 91.5 | 92.0 | 91.2 |
| Natural and applied sciences | 89.8 | 90.7 | 87.5 |
| Education, law and social, community and government services | 86.3 | 82.5 | 88.6 |
| Sales and services | 93.2 | 93.6 | 92.8 |
| Other | 87.9 | 89.3 | 86.8 |
| Region | | | |
| Atlantic provinces | 87.4 | 82.3 | 91.3 |
| Quebec | 92.8 | 93.6 | 92.2 |
| Ontario | 91.4 | 92.1 | 90.7 |
| Manitoba and Saskatchewan | 86.9 | 85.8 | 88.0 |
| Alberta | 88.5 | 87.5 | 89.5 |
| British Columbia | 85.5 | 82.3 | 88.4 |

Note(s): The sample consists of employees aged 15 to 64 who have at least 24 months of tenure with their employer, who usually worked outside the home prior to the COVID-19 pandemic but worked most of their hours at home during the reference week of February 2021. Full-time students, full-time members of the Canadian Armed Forces and records fully imputed are excluded. Numbers may not add to 100.0 because of rounding.

Source(s): Sources: Statistics Canada, Labour Force Survey and Labour Force Survey supplement, February 2021.

Almost half of new teleworkers who report accomplishing more work per hour also work longer hours per day

While the vast majority of new teleworkers reported being at least as productive at home as they were in the past, several of them ended up working longer hours per day at home than they did at their usual place of work.

Large proportions of individuals who accomplish more work per hour (48%) and of individuals who do less work per hour (44%) reported working longer hours per day than they did in the past.

Furthermore, virtually none of the workers who accomplish at least as much work per hour at home as they did previously now work shorter hours per day.

Overall, 35% of all new teleworkers reported working longer hours, with managers doing so in greater proportions (51%). In contrast, 3% of all new teleworkers reported working shorter hours.

The degree to which these longer hours affect family–work balance and the extent to which they will persist once the COVID-19 pandemic is over remain to be seen.

Table 2
Percentage of new teleworkers who reported that they now work longer hours per day than when they were working outside the home, by selected characteristics

| | All new teleworkers | New teleworkers who accomplish more work per hour |
|--|---------------------|---|
| | % | |
| Overall | 34.7 | 47.8 |
| Sex | | |
| Men | 32.1 | 48.3 |
| Women | 37.1 | 47.4 |
| Age | | |
| 15 to 34 | 29.4 | 40.6 |
| 35 to 50 | 35.6 | 48.1 |
| 51 to 64 | 38.2 | 53.2 |
| Education | | |
| No postsecondary education (PSE) | 25.0 | 37.9 ^E |
| PSE below bachelor's degree | 27.7 | 41.1 |
| Bachelor's degree | 37.5 | 48.8 |
| Above bachelor's degree | 40.8 | 55.8 |
| Marital status and presence of children | | |
| Married or common-law, with children | 38.4 | 50.7 |
| Married or common-law, without children | 32.7 | 47.6 |
| Not married or common-law, with children | 35.1 | 54.6 ^E |
| Not married or common-law, without children | 28.5 | 36.5 |
| Industry | | |
| Goods-producing industries | 34.2 | 49.7 |
| Trade, transportation and warehousing | 38.9 | 53.6 |
| Finance and insurance | 43.6 | 56.2 |
| Professional, scientific and technical services | 34.1 | 49.6 |
| Educational services | 35.6 | 46.0 |
| Health care and social assistance | 30.2 | 37.9 ^E |
| Public administration | 32.8 | 44.4 |
| Other | 25.7 | 40.0 ^E |
| Occupation | | |
| Management | 51.1 | 64.2 |
| Business, finance, and administration | 34.5 | 51.5 |
| Natural and applied sciences | 28.4 | 41.9 |
| Education, law and social, community and government services | 36.3 | 40.9 |
| Sales and services | 30.1 | 37.1 ^E |
| Other | 26.1 ^E | 39.5 ^E |
| Region | | |
| Atlantic provinces | 28.5 | 35.4 |
| Quebec | 34.2 | 49.8 |
| Ontario | 37.4 | 48.7 |
| Manitoba and Saskatchewan | 28.7 | 41.8 |
| Alberta | 35.5 | 50.8 |
| British Columbia | 28.0 | 41.8 ^E |

^E use with caution

Note(s): The sample consists of employees aged 15 to 64 who have at least 24 months of tenure with their employer, who usually worked outside the home prior to the COVID-19 pandemic but worked most of their hours at home during the reference week of February 2021. Full-time students, full-time members of the Canadian Armed Forces and records fully imputed are excluded. Numbers may not add to 100.0 because of rounding.

Source(s): Statistics Canada, Labour Force Survey and Labour Force Survey supplement, February 2021.

Preliminary evidence regarding barriers to productivity

Employees who reported accomplishing less work per hour while working from home identified different barriers to productivity.

About one in five of those who reported being less productive than prior to the pandemic reported a lack of interaction with co-workers as the main reason why they accomplished less work per hour. Close to 20% reported having to care for children or other family members. The remainder faced different challenges, such as accessing work-related information or devices (11%), having to do additional work to get things done (13%), having an inadequate physical work space (10%), or experiencing difficulty with Internet speed (5%).

Since these numbers are based on a relatively small sample, they are best interpreted as providing preliminary—rather than definitive—evidence regarding the barriers to productivity faced by new teleworkers.

Preferences for telework are diverse

New teleworkers were also asked the degree to which they would prefer working from home or outside the home once the COVID-19 pandemic is over. Their preferences for telework were diverse.

Overall, 80% of new teleworkers indicated that they would like to work at least half of their hours from home once the pandemic is over.

In fact, 41% indicated that they would prefer working about half of their hours at home and the other half outside the home, while 39% would prefer working most (24%) or all (15%) of their hours at home. The remaining 20% would prefer working most (11%) or all (9%) of their hours outside the home.

Men and women mentioned that they would like to work at least half of their hours from home in fairly similar proportions.

Table 3
Percentage of new teleworkers who reported that they would prefer to work at least half of their hours at home once the COVID-19 pandemic is over, by sex and selected characteristics

| | Both sexes | Men | Women |
|--|-------------|-------------|-------------|
| | % | | |
| Overall | 79.8 | 79.3 | 80.2 |
| Age | | | |
| 15 to 34 | 76.9 | 80.2 | 73.8 |
| 35 to 50 | 82.4 | 80.0 | 84.7 |
| 51 to 64 | 78.2 | 77.0 | 79.2 |
| Education | | | |
| No postsecondary education (PSE) | 82.5 | 81.5 | 83.4 |
| PSE below bachelor's degree | 82.2 | 80.7 | 83.3 |
| Bachelor's degree | 80.1 | 80.7 | 79.6 |
| Above bachelor's degree | 75.7 | 74.6 | 76.6 |
| Marital status and presence of children | | | |
| Married or common-law, with children | 81.7 | 80.1 | 83.2 |
| Married or common-law, without children | 78.4 | 80.6 | 76.5 |
| Not married or common-law, with children | 87.0 | 78.2 | 89.5 |
| Not married or common-law, without children | 75.5 | 75.8 | 75.1 |
| Industry | | | |
| Goods-producing industries | 81.6 | 80.8 | 82.5 |
| Trade, transportation and warehousing | 85.2 | 84.0 | 86.7 |
| Finance and insurance | 86.6 | 85.5 | 87.7 |
| Professional, scientific and technical services | 79.8 | 79.5 | 80.1 |
| Educational services | 61.9 | 58.8 | 63.5 |
| Health care and social assistance | 79.4 | 73.6 | 80.9 |
| Public administration | 83.6 | 82.5 | 84.4 |
| Other | 75.8 | 74.1 | 77.4 |
| Occupation | | | |
| Management | 81.5 | 81.1 | 82.1 |
| Business, finance, and administration | 85.5 | 84.9 | 85.7 |
| Natural and applied sciences | 81.3 | 80.3 | 83.9 |
| Education, law and social, community and government services | 65.6 | 60.7 | 68.7 |
| Sales and services | 79.8 | 81.8 | 78.1 |
| Other | 74.7 | 80.4 | 70.5 |
| Region | | | |
| Atlantic provinces | 71.5 | 68.8 | 73.6 |
| Quebec | 81.5 | 81.7 | 81.2 |
| Ontario | 81.2 | 82.3 | 80.1 |
| Manitoba and Saskatchewan | 78.1 | 74.2 | 81.4 |
| Alberta | 76.0 | 73.7 | 78.2 |
| British Columbia | 76.8 | 70.6 | 82.2 |

Note(s): The sample consists of employees aged 15 to 64 who have at least 24 months of tenure with their employer, who usually worked outside the home prior to the COVID-19 pandemic but worked most of their hours at home during the reference week of February 2021. Full-time students, full-time members of the Canadian Armed Forces and records fully imputed are excluded. Numbers may not add to 100.0 because of rounding.

Source(s): Statistics Canada, Labour Force Survey and Labour Force Survey supplement, February 2021.

The diversity of preferences for telework observed in the aggregate was also found regardless of the socioeconomic group considered.

For example, 43% of new teleworkers employed in large firms in the commercial sector—i.e., in sectors other than public administration, educational services, and health care and social assistance—indicated that they would like to work most or all of their hours at home once the pandemic is over. In addition, 40% would prefer working half of their hours from home and the other half elsewhere. The remaining 17% would prefer working most or all of their hours outside the home.

Productivity at home is a strong predictor of preferences for telework

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%).

The large difference observed between these two groups remained in multivariate analyses, thereby confirming that productivity at home is a strong predictor of preferences for telework.

Conversely, 54% of teachers expressed a preference for working most or all of their hours outside the home. This is three times the percentage observed for other workers (18%).

In line with the notion that working longer hours might make telework less attractive, employees who reported working longer hours per day were, even after controlling for several personal and job characteristics, less likely than others to prefer working most or all of their hours at home.

Note to readers

The study released today, "Working from Home: Productivity and Preferences," uses data from the following supplementary questions added to the February 2021 Labour Force Survey:

Q1. A person may be more or less productive now that they are mainly working from home. Think about your average work day since you started mainly working from home, compared with the time when you mostly worked outside the home.

Do you:

Work longer hours

Work shorter hours

Work about the same number of hours

Accomplish more work per hour

Accomplish less work per hour

Accomplish about the same amount of work per hour

Q2. (Asked only for new teleworkers who report accomplishing less work per hour.)

What is the **main reason** why you usually accomplish less work per hour when working from home?

Would you say you:

a) Experience difficulty with Internet speed

b) Experience difficulty accessing work-related information or devices (e.g., accessing some documents, software, databases, videoconference platforms)

c) Have to do additional work (administrative or other) to get things done

d) Have to provide care for children or other household members during working hours (e.g., assisting with remote schooling, tending to young children, caring for elderly household members)

e) Have an inadequate physical work space at home (e.g., no quiet room, inadequate office equipment)

f) Lack interaction with co-workers

g) Experience health issues related to lockdown (e.g., anxiety, depression, physical pain)

h) Other

i) Don't know

Q3. Given the choice, what type of work arrangement would you prefer once the pandemic is over?

Would you say you would prefer to work:

All hours **outside** the home

Most hours **outside** the home

About half at home and half outside the home

Most hours **at home**

All hours **at home**

Reference: Barrero, J.M., N. Bloom, and S.J. Davis. 2020. "Why Working from Home Will Stick," Becker Friedman Institute for Economics at UChicago, Working Paper No 2020-174.

Definitions, data sources and methods: survey number [3701](#).

The study "[Working from home: Productivity and preferences](#)" is now available as part of the series *StatCan COVID-19: Data to Insights for a Better Canada* ([45280001](#)).

For more information contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca).

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