

## How much time did we save by not commuting during the pandemic?

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One hour a day is the global average for how much time people spend commuting to and from work every working day. In dense metropolitan areas such as London, New York, or Hong Kong, the average commute can stretch to an hour and a half roundtrip. During the lockdowns across the globe, this daily shuffle to-and-from work was eliminated. We looked at a data around the world to get a sense of how much time that normally would have been spent on the commute could be redirected to other purposes during the pandemic.

***In the United States.*** According to Gallup, from mid-March to the beginning of April the percentage of employed Americans who had worked remotely because of coronavirus doubled, from 31% to 62% and then remained relatively stable (1). According to the Bureau of Labor Statistics, there were 155,772,000 employed adult Americans in the US in March 2020 with average weekly hours of 34.4 (2). Thus, if assume these people are working 8-hour days, this amounts to approximately 4 days a week of working. This means that the number of employed people who had worked remotely rose from 48,289,320 people to 96,578,640 people, resulting in a 48,289,320 person gain in those who had worked remotely. The length of lockdowns varied in the United States depending on geographic regions (3) but 40 out of 50 states had a lockdown at some point (4) and at one point over 90% of the US population was under mandatory lockdown (5). For the sake of simplicity, let's consider one week if the entire country did consistently go into lockdown. In late April, 52% of American workers said they were always working remotely (1). So, if you take 1 week x (48,289,320 additional people who began to work remotely \* 52% always working remotely) = 25,110,446 people x 4 days a week = 100,441,786 days not commuting \* (average commute of 26.6 min (6) each way) 53.2 min = 5,343,503,000 minutes gained / 60 min per hour = 89,058,383 hours gained. Multiplied by four weeks, this is 356,233,532 hours, and divided by an 8-hour workday, that is 44,529,191 workdays saved by not commuting during the pandemic.

**In sum:** In the United States, over the course of just one week during lockdown, eliminating the average 4 days of weekly commuting for those working from home saved around 89,058,383 hours, or 356,233,532 hours collectively per month – over 44.5 million full workdays.

***In the United Kingdom.*** The UK Office of National Statistics conducted a survey to determine how time use changed during the coronavirus pandemic and found that employed adults spent 1 hour and 19 minutes each day commuting or using transit from the time period of March 28 to April 26 (30 days) (7). Not all of this time may have been time associated with a reduction in commuting, e.g., it could be reductions in transit for non-work-related activities, but given that the average commute time in the UK is 57 minutes (8) it's not unreasonable to assume that much of this was related to commuting. Estimates at the end of 2019 indicate that around 32.90 million people were employed in the UK (9). This means that 79 minutes x 30 days of study period = 2,370 minutes x 32.9 million adults = 7,797,300,000 minutes / 60 min per hour = 129,955,000 hours. Divided by an 8-hour workday, that is 16,244,375 workdays saved by not commuting during the pandemic.

**In sum:** In the United Kingdom, around 129,955,000 hours were gained collectively in home office over the course of the month – over 16.2 million full workdays.

**In Hong Kong.** According to a China Daily HK article published March 2, 2020: “As local infections of the deadly virus rose from the end of January, the city’s biggest employer — the Hong Kong government — allowed its 176,600 civil servants to work from home until the beginning of March, except for those assigned to emergency and essential public services who continue to report for work as usual” (10). If you take the 176,600 figure \* 90 minute average commute time in Hong Kong (11) = 15,894,000 min per day / 60 min per hour = 264,900 hours each day.

**In sum:** This means that each day while Hong Kong government employees worked from home in lockdown, they collectively saved approximately 264,900 total hours. Considering a five-day work week for one month or 20 days, these employees saved 5,298,000 hours during the lockdown period.

**In Switzerland.** Deloitte (12) interviewed a representative sample of working age adults in Switzerland in April and found that during the crisis, the percentage of adults working at least a half day per week at home increased by 23% (from 25% to 48%). According to the Bundesamt für Statistik’s 2020 estimates, there are 4,714,000 people working in Switzerland (13) so that means that around 1,178,500 people were working at least a half day at home before the crisis which grew to 2,262,720 people during the crisis, an additional 1,084,220 people. If you assume that this half day means that these people did not commute at least on one day per week, 1 more day a week at home x 6 weeks x 1,084,220 additional people x 61.2 min/commute, since average commute time one-way in Switzerland is 30.6 min according to the Bundesamt für Statistik (14) = 398,125,584 min / 60 min per hour = at least 6,635,426 hours extra than before the crisis.

After the crisis, according to the Deloitte survey (12), this number dropped by 14% (to 34%), meaning from 2,262,720 people to 1,602,760 people, a loss of 659,960 people. With 1 less day a week working remotely x 1 week (to calculate numbers for each post-crisis week) x 659,960 people x 61.2 min commute = 40,389,552 min / 60 min per hour = 673,159 hours were “lost” by moving back from home office.

**In sum:** In Switzerland, working adults reclaimed a total of 6,635,426 collective hours throughout the six-week lockdown period simply by having their commute on this one day eliminated. And this is likely a conservative estimate of the amount of hours that were saved, given that many people switched entirely to home office during the crisis, saving the time from their commute on multiple days per week. After lockdowns ended, around 673,159 hours were “lost” collectively on commutes by these working adults as they resumed their commutes, each and every week.

**In Germany.** According to a Frankfurter Allgemeine Zeitung interview, Labor Minister Hubertus Heil said initial estimates suggest the proportion of the work force working from home in Germany rose from 12% to 25% during the virus crisis, to around 8 million people (15). This means that there were 32,000,000 people in the workforce and the number of those working remotely grew from 3,840,000 to 8,000,000, an additional 4,160,000 people. Given that the

average commute in Germany is around 60 minutes (11), this is  $4,160,000 * 60 \text{ minutes} = 249,600,000 \text{ minutes} / 60 \text{ minutes per hour} = 4,160,000 \text{ hours per day in lockdown}$ . Divided by an 8-hour workday that is then 520,000 full workdays worth of hours.

**In sum:** In Germany, the additional 4,160,000 people who began to work from home during the crisis saved collectively 520,000 full workdays worth of hours each day that they could repurpose from their daily commute.

**In Singapore.** According to a Bloomberg article published May 2, 2020: “More than 80% of Singapore’s workforce is now working at home after the city-state implemented ‘circuit-breaker’ measures including the closure of schools and most workplaces in early April” (16). The number of employed persons in Singapore in April was 3,630,000 (17), meaning that  $3,630,000 * 80\% \text{ working remotely} = 2,904,000 \text{ people working at home}$ . The average commute in Singapore is 88 minutes (11). This means that  $2,904,000 \text{ remote workers} * 88 \text{ minutes would save } 255,552,000 \text{ minutes on one day} / 60 \text{ min per hour} = 4,259,200 \text{ hours each day during the lockdown}$ . Divided by an 8-hour workday that is then 532,400 full workdays worth of hours.

**In sum:** With Singapore’s lengthy average commute at 88 minutes on average, placing 80% of the workforce in home office during lockdown meant that 2,904,000 remote workers saved 4,259,200 hours for each day during the lockdown on which they did not commute, or 532,400 full workdays worth of hours.

**Changing the workweek to save time.** How much time would models of the work week that allow for increased remote work: like the “3-2-2” week, or three days in the office, two working remotely, and two free, save? If a supervisor allows an employee work from home two days a week more after the crisis than this employee did before the crisis, based on the averages, that employee would save an hour of time a week on commuting (1,2,11,14), a 8-hour workday each month ( $2 \text{ hours} * 4 \text{ days per month}$ ), and over the course of the year, over a full week of extra workdays per year. (Note that this calculation depends specifically by country and the average number of workdays/holidays/vacation times, for example the United States has on average 48 weeks per year devoted to work [52 weeks per year minus 2 weeks average paid vacation minus ~2 weeks public holidays], which is then  $2 \text{ hours} * 48 \text{ weeks} = 96 \text{ hours} / 8 \text{ hours per day} = 16 \text{ eight-hour workdays}$ , countries with more generous vacation policies and more public holidays then would have less.)

**In sum:** Working from home and eliminating the commute two days a week more after the crisis than before the crisis, the average employee would save a full 8-hour workday each month, and over the course of the year, over two weeks worth of workdays per year - more than the standard vacation time offered to employees in many countries across the globe.

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