

Working harder and longer: how managers use their time when working from home

*Managers worked longer hours during the pandemic and changed how they used their time, find **Thomaz Teodorovicz**, **Raffaella Sadun** (Harvard Business School), **Andrew L. Kun** (University of New Hampshire), and **Orit Shaer** (Wellesley College). They suggest how better technology, including AI, could help them overcome the downsides to working from home.*

The sudden and widespread shift to working from home during the pandemic impacted how managers allocate time during their working day. It also affected the type and length of work activities they engaged in. The need to understand these effects is made even more salient by the fact that the forced transition out of the office initiated by the pandemic will likely result in a [more permanent shift](#) towards WFH arrangements.

But WFH presents a [challenge for teamwork and social activities](#), and managers are very likely to engage precisely in activities that [rely on teamwork and social interactions](#). Since coordination is such a central activity of what managers do and what organisations require, it is important to understand the extent to which a transition to WFH arrangements during the pandemic has affected this occupation. One method to characterise how managerial work has changed in a context of a sudden transition to WFH is to examine changes in where managers allocate their most valuable and scarce resource: [their time](#).

Managers are a particular type of “knowledge workers” — i.e. workers who typically [focus on problem-solving and related cognitive tasks](#). Unlike other knowledge workers whose tasks depend more on allocating one’s individual efforts and skills to conduct solo tasks, such as writing reports or coding, the job of managers requires primarily coordinative tasks, including the supervision, evaluation, and deployment of the work of others.

Our study examines the effects of the sudden shift to WFH on three specific aspects of managerial work: how managers allocate their time across different activities (e.g. the relative importance of activities performed alone vs. those that require communication and coordination with others); whether the incidence and length of different activities (e.g., meetings) changed; and whether the changes in time allocation and activity structure varied according to the type of organisation employing the manager.

We used this evidence to inform a discussion of two questions related to the development of human-computer interaction (HCI) technology.

1. Can HCI technology reduce (or even eliminate) the possible additional burden that managers experience due to the shift to working from home?
2. Can it help take advantage of opportunities for improving managerial productivity and wellbeing that are made possible by this shift?

Our online time-use survey collected data on 1,192 knowledge workers in two waves. The first was pre-pandemic, in August/2019, and the second was conducted during the pandemic, but post the initial months where organisations were initially adjusting their activities, in August/2020. Participants included both managers and non-managers. In this study, we focus on managerial workers. Importantly, both waves of respondents commuted to work before the pandemic, which allows us to analyse the effects of the sudden shift out of the office for a subset of workers that experienced a sudden change in the primary location of work. In both surveys, participants were asked to recall the most representative working day from the previous week, and then fill in a time-use diary reporting on the main activities they engaged in during that day (type of activity, start time, and end time). Both waves focused on US full-time employees in knowledge-intensive occupations.

The work-day span of managers increased by an average of 60.8 minutes

Our findings indicate that the forced transition to WFH created by the pandemic was associated with a drastic reduction in commuting time. Managers did not reallocate the “extra” time to personal activities, rather reallocating the time gained from commuting towards more time spent in meetings. These results suggest an attempt to recoup some of the extemporaneous interactions that typically happen in the office. Furthermore, managers employed by larger organisations — i.e. managers whose typical interactions are likely to be more complex and include a broader number and variety of people — were disproportionately affected by WFH arrangements during the pandemic. We find that this group ended up spending more time in work-related meetings, and less time in personal activities, relative to managers employed by small/medium-sized organisations.

Commuting time in the morning was replaced by personal activities between 6am and 9am. The work-day span of managers (the difference between the start of the first work activity and the end of the last work activity) increased by an average of 60.8 minutes. They engaged in more personal activities in the early afternoon, while working until later in the evening (6-10pm). Because personal time expands in the early morning and in the early afternoon while work time expands until later in the evening, managers did not necessarily reallocate all their commuting time towards personal or work activities. Rather, they stretched their working day for longer hours, potentially interweaving it with personal and work-related tasks.



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The shift also resulted in more shorter, more fragmented, and interactive tasks. One possible interpretation of these results is that the sudden shift to WFH led managers to allocate more time to coordinative and interactive activities to compensate for the loss of a common physical space of interaction. For example, meetings may have been used to replace “watercooler conversations” or informal interactions that typically take place in the office. To assess whether the shifts observed in the data are consistent with this interpretation, we examined whether changes in time allocation post-COVID are larger for managers employed by large firms relative to managers employed by small/medium-sized firms. The logic behind this comparison is that managers employed by larger firms are typically in charge of [larger and more complex teams](#), and would therefore need to compensate more for the lost physical interactions that typically take place in the office.

The pre- vs. post-COVID changes in time allocation for managers from large firms are substantially different from changes experienced by managers in small/medium firms. The change in time allocated to personal activities was - 31.9 minutes, the change in workday span was 62.6 minutes, and the change in total work time was 28.2 minutes more. In other words, managers in large firms lost more of their personal time than managers in small/medium firms, they increased their work span more, and there are indications that they spent more time working.

These results suggest that the forced and unexpected transition to WFH created the necessity for managers to work harder (and longer) to make up for the loss of coordination activities that would typically take place as unplanned and extemporaneous interactions in the office. This interpretation is also aligned with the emergence of company-sponsored interactive “[informal](#)” activities (e.g. virtual watercoolers, mentoring events) that seek to facilitate informal conversations between managers and employees working remotely, and the idea that managers had to boost their digital communication with team members to assure not only coordination of work-related activities, but also to [check in](#) on how their team members were handling a world where office needs and personal needs intertwine.

One area where technology could help with time allocation when WFH is with coordination and organisational support tasks — for many such tasks, AI digital assistants might soon achieve a level of sophistication which is close to that of human assistants. Such digital assistants will be able to help workers increase their productivity, and possibly reduce email and short coordination meetings, by handling routine coordination tasks such as scheduling meetings, sharing access to resources, and locating information.

Our data also indicates that for some managers, WFH means interleaving work and personal life. We see this from the fact that for some managers the length of the workday has increased compared to pre-COVID days, and this likely means that they switch between personal and work tasks at certain points during the day. This might indicate that, for these managers, work and personal life will collide, with the barriers between the two blurring. Technology can help managers and workers maintain barriers between work and personal life, which in turn can help shorten the span of their workday and possibly increase their wellbeing.

Emerging human-computer interaction styles such as augmented and virtual reality, as well as newly designed meeting spaces, hold promise for improving the quality of remote interactions among team members

It is possible that some managers take advantage of the flexibility of WFH and that this is the source of the longer workdays we observed after the start of the pandemic. Technology could help with “sculpting boundaries”, both in the form of planning tools, as well as in the form of AI assistants that can provide real-time suggestions and support. Planning tools could help managers see the big picture — how much time they are investing in different activities, and what they are able to accomplish. Real-time assistants could help them react, primarily when there is a need for flexibility with boundaries. These assistants could help list options for sculpting boundaries that workers could evaluate and implement. The assistants could also support managers’ mental wellbeing as they look for ways to satisfy the competing demands of work and personal life.

One reason that managers spend additional time communicating might be that they have not found an adequate replacement for the formal and informal face-to-face meetings that were possible when working in a shared office. They can use tools such as Zoom to have virtual face-to-face meetings. However, these make it [difficult](#) for conversants to observe each other’s non-verbal cues, such as body posture, head and arm gestures, eye gaze (including eye contact), and non-verbal utterances. Emerging human-computer interaction styles such as augmented and virtual reality, as well as newly designed meeting spaces, [hold promise](#) for improving the quality of remote interactions among team members that might be distributed across different locations (some at home, some in the office), and could provide access to shared tools such as whiteboards, simulations, and shared social spaces.

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