

# Working conditions and health of knowledge workers

## 42 baua: Facts

Data from the 2018 BIBB/BAuA Employment Survey indicate that knowledge workers often have work-related resources, such as autonomy. However, they also have to deal with high work demands, especially work intensity. Despite the resources, high demands can pose a risk to health and well-being. Knowledge workers experience more fatigue and headaches and find it more difficult to detach from work compared to non-knowledge workers.

### Who is a knowledge worker?

In the context of the changing world of work and digitalisation, knowledge work is becoming more prevalent. In contrast to workers who mainly perform routine tasks or physical work, knowledge workers are highly qualified individuals who predominantly apply theoretical and analytical knowledge in their work.

Following previous research<sup>1</sup>, we define employees as knowledge workers if all of the following conditions apply:

- 1) The profession belongs to the main occupational groups 1-3 according to the International Standard Classification of Occupations (ISCO-08). These include managers and professionals, as well as technicians and associate professionals.
- 2) The person holds at least a bachelor's degree or an equivalent qualification.
- 3) The job activity involves frequent problem solving, frequent professional communication and frequent computer use.

Using data from the 2018 BIBB/BAuA Employment Survey, we compare knowledge workers (n = 4.551) to non-knowledge workers (n = 15.458) regarding occupations, job demands, resources and health.

### Occupations of knowledge workers

Knowledge workers are more often employed in personal service occupations (34 % vs. 25 %), commercial and business services (33 % vs. 27 %), and IT and scientific services (11 % vs. 3 %) compared to non-knowledge workers. On the other hand, non-knowledge workers are more frequently represented in production (29 % vs. 19 %) and other economic services (16 % vs. 3 %). Thus, knowledge work occurs in many different occupations and particularly often in the service sector.

### Job demands of knowledge workers

Knowledge workers are exposed to high work demands (see Fig. 1). Knowledge workers more often experience multitasking (78 % vs. 56 %), deadline or performance pressure (60 % vs. 44 %), and interruptions (54 % vs. 42 %) compared to non-knowledge workers. Moreover, they are also more often confronted with new tasks (65 % vs. 33 %) or experience situations in which they are required to improve procedures or try out new things (48 % vs. 24 %). Furthermore, the data reveals that more knowledge workers perceived an increase in professional demands over the last two years (52 % vs. 43 %) compared to non-knowledge workers. Moreover, 27 % of knowledge workers tend to feel overwhelmed in terms of workload (vs. 21 % non-knowledge workers).

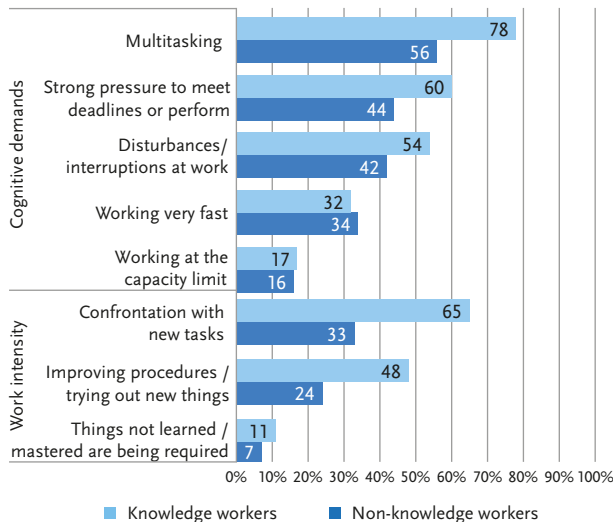


Fig. 1: Frequent work demands of knowledge workers compared to non-knowledge workers (in %).

### Resources of knowledge workers

At the same time, knowledge workers more frequently have access to work-related resources compared to non-knowledge workers (see Figure 2). For example, they can often plan and schedule their own work (86 % vs. 60 %) or can influence time breaks (76 % vs. 60 %) and the amount of work (40 % vs. 29 %). Both employee groups experience high levels of social support, although the levels tend to be slightly higher for knowledge workers.

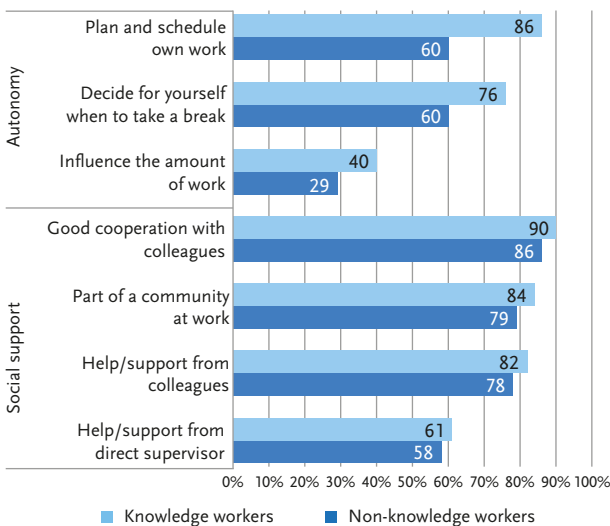


Fig. 2: Frequent resources of knowledge workers compared to non-knowledge workers (in %).

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### Health of knowledge-workers

In the survey, 26 % of knowledge workers report frequent difficulties to detach from work (vs. 21 % of other workers). Insufficient detachment from work during rest times is an early indicator of unfavourable working conditions and stress<sup>2</sup>. In addition, knowledge workers suffer more often from certain psychosomatic complaints, such as headaches (36 % vs. 33 %) and emotional exhaustion (30 % vs. 25 %). This result is also evident when controlling for third variables (education, age and gender).

### Summary

Knowledge workers often have high work-related resources but are also exposed to increased job demands (i.e. work intensity). Furthermore, the majority of knowledge workers report an increase in professional demands in the last two years. In addition, knowledge workers have more difficulties detaching from work during non-work time and experience certain psychosomatic symptoms more frequently than non-knowledge workers. Against this background, companies should implement preventive measures in the framework of occupational health management<sup>3</sup>. This may include, for example, training interventions focussing on time management, target setting or boundary management between work and private life. In this way, organisations can help support the health of their employees in the long-term.

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### Further information

- 1 C. Viñas-Bardolet, J. Torrent-Sellens & M. Guillen-Royo, 2020. Knowledge Workers and Job Satisfaction: Evidence from Europe. *Journal of the Knowledge Economy*, 11(1), 256–280.
- 2 Wendsche, J, Lohman-Haislah, A, Schulz, A, Schöllgen I, 2018. Mentales Abschalten von der Arbeit als Erholungsindikator. *ASU: Zeitschrift für medizinische Prävention. Sonderheft Psychische Gesundheit*, S. 25-31. Verfügbar unter: [www.baua.de/dok/8809934](http://www.baua.de/dok/8809934)
- 3 Eine Zusammenstellung praxisreprobierter Werkzeuge für ein präventives Personal- und Gesundheitsmanagement (z. B. Checklisten, Online-Tools und Leitfäden) ist verfügbar unter: <https://gesundearbeit-mega.de/toolbox-gesundheitsmanagement>