

# The Organization of Work and Its Significance for Health and Wellbeing

THE ORGANIZATION OF WORK AND ITS SIGNIFICANCE  
FOR HEALTH AND WELLBEING

Government commission to summarize knowledge regarding  
factors that create sound and healthy workplaces

REPORT 2020:7

ISBN 978-91-986142-2-0

---

Swedish Agency for Work Environment Expertise

Box 6051, SE-800 06 Gävle

Telephone: 00 46 2614 84 00, Email: [info@mynak.se](mailto:info@mynak.se)

[www.sawee.se](http://www.sawee.se)

# The Organization of Work and Its Significance for Health and Wellbeing

**This report is written by:**

Karolina Parding

Fredrik Sjögren

Christer Petersson

Niklas Pekkari

# Foreword

In June 2018, the Swedish government commissioned the Swedish Agency for Work Environment Expertise to compile knowledge about factors that engender healthy and well-functioning workplaces (A2018/01349/ARM).

According to this commission, particular attention should be paid to the organizational and social aspects of work environments. To carry out this mission, the Agency tasked a number of researchers from various colleges and universities with producing literature reviews in four areas: the physical work environment, leadership, the organization of work and the psychosocial work environment.

This report presents our literature review in the area “The Organization of Work”. It was planned for, conducted and written by Professor Karolina Parding and Dr Fredrik Sjögren, PhD, with the assistance of Christer Petersson, MA and Niklas Pekkari, MA, all from the Luleå University of Technology. Dr Anna Berg Jansson and Dr Mats Jakobsson, both at Luleå University of Technology, have also contributed with valuable comments on the report, during the process. Professor Lotta Dellve of the University of Gothenburg conducted a quality review of the report at the request of the Agency, and librarian Malin Almstedt Jansson of the University College of Gävle and Maivor Hallén, head librarian at the Faculty of Engineering at Lund University have assisted our outside experts in identifying and furnishing scientific documentation for the literature review on which this report is based.

Taking as its starting point research regarding public sector organizations, the literature review shows that how work is organized plays a significant role in employee health and wellbeing. One important conclusion is that to foster health and wellbeing in public sector organizations, the employees should be able to do their work in a manner that is consistent with their professional logic, or at least not in conflict with it. According to the literature review, affording professional logic interpretive priority could lead to fewer conflicting demands, greater influence and, potentially, a more reasonable workload, greater social support and more favourable conditions for learning and competence development. Whilst results are based on public sector organization studies, the results can be assumed to be of relevance in other, but similar, work contexts. The literature review further shows that the flexibility found in various forms of employment can promote health. However, this is only if it is based on the employee perspective and perceptions, such as through employees wanting to have, and actually having, influence on their own working hours.

The authors of the report are responsible for the results and conclusions presented.

I wish to express my tremendous gratitude to our outside researchers and quality reviewers, and to the Agency employees who contributed to the creation of this valuable literature review.

The literature review has been published on the Agency website, and in the Literature review series.

Gävle, February 2020



Nader Ahmadi  
Director-General

## Our process model for systematic reviews

To support the researchers in their preparation of this literature review, the Swedish Agency for Work Environment Expertise developed a system for the systematic creation of literature compilations in its area of responsibility. It contains systems of preparation, literature search, relevance assessment, quality assurance and the presentation of studies and results. It also includes the Agency's process management and university library support, as well as external quality assurance.

At the Agency, first Nadja Grees and later Anna Mannikoff have served as supervising process managers for preparing the literature review. Susanne Lind administered the process, while a team of communicators comprising Pernilla Bjärne, Sverre Lundqvist, Liv Nilsson, Joakim Silfverberg and Camilla Wengelin has been responsible for the work of text management, layout, accessibility and the scheduling and planning of webinars and podcasts.

# Abstract

This report is based on a literature review of current research in the area of working life studies, focusing on organization of work. This summary is not to be viewed as comprehensive, but rather as indicative of key issues and results in this area. It is a so-called “rapid review” (Grant & Booth, 2009), and is based on a systematic literature search conducted by an information specialist in collaboration with the project experts. Its focus is on factors that contribute to sound and healthy workplaces, with high efficiency and productivity, including that the employees both experience a good work environment and feel good at work. The aim is to summarize and describe current research regarding the organization of work (including organizational models) that can contribute to health and wellbeing, efficiency and productivity in working organizations mainly in a Swedish, but also in a Nordic context.

To achieve this aim, three more specific questions were formulated:

1. Which principal orientations can be identified within the research on the organization of work (including organizational models) in terms of contexts and study objects, methodological approaches and theoretical perspectives?
2. Which organizational factors can be identified as contributing to employee health and wellbeing, efficiency and productivity?
3. Based on the results of the publications’ analysis, what knowledge gaps can be identified, and what general advice can be formulated?

This literature review includes 80 publications, most with a focus on a Swedish context, although the workplace, labour market and work life contexts of other Nordic

countries are also included. All in all, we can see that there is a considerable body of research concerning the organization of work. It is at the same time clear, judging from the publications included, that much of this research actually focuses on factors constraining health and wellbeing. In other words, judging from the analysis of the included publications, it is clear that there is a lack of research with a direct focus on the organization of work (including organizational models) as it relates to health and wellbeing in which the focus is on factors that promote health. Even scarcer is research that focuses on the organization of work (including organizational models) as it relates to health and wellbeing, as well as productivity and efficiency. It is also striking that neither health, wellbeing, productivity nor efficiency is unambiguously defined, but rather the vast majority of publications lack explicit definitions of what is meant by the terms health, wellbeing, productivity and efficiency. This entails that drawing overly far-reaching conclusions is problematic, as it is reasonable to assume that different definitions are being used (implicitly). The two main themes that emerged during the analysis are conflicting logics in the public sector and the temporal and spatial aspects of organization of work. It should be noted that these main themes share a degree of commonality. It is also clear, judging from the publications included, that much of the research that is available focuses on the public sector, albeit in different ways.

The literature review concludes with a description of identified knowledge gaps and some general advice. The general advice is focused on what employers as actors need to consider when it comes to organizing work in a way that promotes health and wellbeing as well as efficiency and productivity.





# Table of Contents

<b>Abstract</b>	<b>1</b>
<b>1. Introduction</b>	<b>5</b>
The task	5
Purpose and questions	6
Sample and method	6
<b>2. Key terms</b>	<b>11</b>
Organization and organizational models	11
Health and wellbeing	11
Efficiency and productivity	12
<b>3. Results</b>	<b>13</b>
Overall description of included publications	13
Conflicting logics in the public sector	16
Temporal and spatial aspects of organization of work– forms of employment and flexibility	23
Employee wellbeing and working organizations' efficiency and productivity	37
Summarizing comments and conclusion	37
Knowledge gaps	39
<b>4. Conclusions</b>	<b>43</b>
General advice	43
<b>5. References</b>	<b>45</b>
<b>6. Appendices</b>	<b>51</b>
Appendix 1 – Inclusion and exclusion criteria	51
Appendix 2 – Categorization template	52
Appendix 3 – Sector breakdown	53
Appendix 4 – Search strings	54



# 1. Introduction

There are health problems in Swedish working life. Nearly three out of ten workers have reported having work-related symptoms over the last 12-month period (Swedish Work Environment Authority, 2018b). Working people are currently experiencing work-related mental health problems more often than previously. Work-related problems that can be tied to a heavy workload, stress and mental illness now constitute the most common reasons for employees to be sick-listed (Swedish Work Environment Authority, 2016, 2018b). In 2017, a quarter of those employed in Sweden had a job that was highly stressful mentally, while six out of ten reported having, to some extent or to a high degree, too much to do at work (Swedish Work Environment Authority, 2018a). The number of reported accidents has also increased during the 2010s, including both accidents that led to absence due to illness and those that did not (Swedish Work Environment Authority, 2019). Even though working organizations and society at large also suffer from illness, accidents and sick-listings, e.g. in relation to the demographic challenges facing Sweden and the rest of the Nordic region (Nordic Council of Ministers, 2018), the suffering is naturally greatest among those personally affected. It is important, for their sake, to expand our knowledge of illness in working life and what factors lead away from it and towards both health and wellbeing.

The reasons why work-related illness is on the rise in Sweden can, at least partly, be explained based on organizational and social factors related to both mental illness and mental wellbeing (Vingård, 2015). One expression of the need to focus in particular on the social and organizational work environments is the Swedish Work Environment Authority's Organizational and Social Work Environment Regulations (AFS 2015:4) regarding the responsibilities of employers with respect to those very issues. Regardless

of whether the issue is stress due to heavier workloads or physical injuries caused by an unclear division of responsibilities, the organization of work is a key issue for a good work environment. It then becomes clear that if we seek to understand health and wellbeing in working life, we have to consider the role that working organizations and the organization of work play in this context. It is not an individual responsibility or fault. Summarizing knowledge about the effects of the organization of work on health and wellbeing is also consistent with the goals set by the UN for 2030, and in particular Goal 3: Health and Wellbeing and Goal 8: Decent working conditions and economic growth.

In order to achieve health and wellbeing in working life in general and in specific workplaces in particular, we need to be aware of which factors lead to illness and diminished wellbeing. We also need to know which factors promote health and wellbeing in working life and, more specifically, at workplaces among the employees. Without such knowledge we will, to a certain extent, lack direction in terms of how work needs to be organised to promote health and wellbeing.

## The task

This literature review has been prepared at the behest of the Swedish Agency for Work Environment Expertise for the expressed purpose of identifying factors within the organization of work that contribute to a good work environment, health and high efficiency in the workplace. This project is based on a targeted Government commission tasking the Agency with summarizing knowledge regarding factors that create sound and healthy workplaces, with a particular focus on the organizational work environment: "Work environment

initiatives must not only protect employees from injury and illness, they must also promote good health. The Swedish Agency for Work Environment Expertise has consequently been tasked with summarizing such research, with a focus on factors that create sound and health workplaces.” (Government decision A2018/01349/ ARM). As can be seen, both the Government commission and the resulting Agency project emphasize the importance of stressing so-called health factors, or promoting health and wellbeing. The starting point for the summary has consequently been to focus on what is positive and serves to promote health and wellbeing for both employees and working organizations, rather than on problems.

However, this turned out to be a difficult point of departure, which may have to do with and reflect a tradition within working life- and work environment research, of often focusing on key areas related to risks and problems. Still, we have tried to focus on what works, rather than what does not work, when possible. This report is thus based on a literature review of current research in the area of the organization of work, with a special emphasis on factors that contribute to workplace employees enjoying a good work environment and feeling good at work.

The summary has been designed at the behest of the Agency as a “rapid review” (see Grant & Booth, 2009), i.e. a limited systematic review. More about what that entails may be found under heading 1.3 Sample and method.

## Purpose and questions

The purpose of the literature review is to compile and describe current research results regarding the organization of work (including organizational models) that can contribute to health, wellbeing, and work organizations’ efficiency and productivity, in mainly a Swedish but also a Nordic context.

To achieve this purpose, we have formulated three questions:

1. Which main orientations can be identified within the research regarding the organization of work (including organizational models) in terms of contexts and study objects, methodological approaches and theoretical perspectives?
2. Which organizational factors can be identified as contributing to employee health and wellbeing, efficiency and productivity?
3. Based on the results, what knowledge gaps can be identified, and what general advice can be formulated?

## Sample and method

The sample and method are described below. The literature search is described by way of introduction, followed by a description of how screening of publications was performed based on inclusion and exclusion criteria. This is followed by a description of how the included publications were analysed.

### Literature search

This literature review is based on scientific literature in the form of peer-reviewed articles, and a few anthology chapters. Other types of publications may of course contain valuable knowledge of relevance to this literature review, such as reports from the social partners in the labour market, but it was not possible to include them within the scope of our assignment. The summary is a rapid review (Grant & Booth, 2009), and is based on a systematic literature search conducted by an information specialist in consultation with the project’s experts. According to Grant and Booth, a rapid review consists of an assessment of what is already known about the subject being studied that is conducted by applying systematic review methods for critically assessing existing research. Grant and Booth also discuss how the analysis in a rapid review is intended to describe the studied material in general, and to describe its overall orientation. That the review is “rapid” means that

some steps in the traditional literature review have been limited and not carried out to the same extent as in a traditional summary, so as to thereby reduce the time it takes to conduct the review (Grant & Booth, 2009). The literature sought out in the review is restricted to reviewed journal articles, although a few anthology chapters were also captured in the search and included. The focus of the literature review was on summarizing the publications' results, and as such the focus was not on validity aspects or generalizability.

The literature search began with a dialogue between the information specialist and the experts in order to identify relevant terms and phrases for the search strategy. The latter provided so-called standard articles, i.e. articles that are deemed obvious for inclusion, and are used to test searches and suggested search terms, and to guide decisions regarding the final search strategy. The strategy was designed with an aim to identify as many of all the relevant studies as possible, while at the same time imposing reasonable limits for the sake of the execution of the project. During the process of designing the search strategy, the information specialist conducted initial searches to ensure that the strategy yielded relevant studies. The final searches were conducted in June 2019.

The search criteria were designed to capture publications, in the form of articles, that address the organization of work as well as organizational models as they relate to employee health and wellbeing. The articles sought were limited to those that were published over a 10-year period (2009–2019) and relevant to Swedish and Nordic working life. Scopus was chosen as the primary database and Web of Science as the supplemental database in order to identify as many relevant studies as possible, and to meet the Swedish Agency for Work Environment Expertise's requirement that literature searches be conducted in at least two relevant databases. This naturally entails a limitation, making it reasonable to assume that some relevant publications were not captured in the literature search conducted.

The search process and inclusion and exclusion processes are described in Figure 1. The final search strategies for each database are presented in Appendix 4. Only scientifically reviewed articles and three anthology chapters were included. The search strategy is based on inclusion and exclusion criteria (see Appendix 1). These criteria were formulated based on the PEO framework, where P stands for participants, population or problem, E stands for exposure and O stands for outcomes of interest in answering the review question and defining which publications are to be included (e.g. "Different ways of organizing work" under exposure) or excluded (e.g. "Ergonomics" under outcomes).

The search strategy was initially based on the Scopus database by combining the various search links stepwise in the strategy. The search strategy was then adapted by changing field tags to search in the Web of Science database. All identified studies were imported into the EndNoteX9 reference management system, where duplicates were removed based on Bramer, Giustini, de Jonge, Holland and Bekhuis (2016).

### Supplemental literature search

In addition to the literature search described above, we chose to include two journals that were not covered by the chosen databases, *Arbetsmarknad & Arbetsliv* and the *Nordic Journal of Working Life Studies*. The decision to include these was based on the fact that they focus in particular on Swedish and Nordic contexts that correspond to the purpose of the literature review. There are of course other journals that could contain publications of relevance to our literature review. However, we limited ourselves to one Nordic and one Swedish journal, due to the time constraints. The sample from these journals is presented below.

#### *Arbetsmarknad and Arbetsliv (A & A)*

With regard to A & A, a manual review was performed of all published issues from Volume 16 Issue 1 to Volume 25 Issue 1. The manual review began with a reading of all the

titles and abstracts of the aforementioned issues. The review was conducted based on the formulated inclusion criteria (Appendix 1). To take further steps to identify relevant publications, the manual review was supplemented with a search conducted using the journal's own search function. The following search terms were used: health, wellbeing, organization, organizing, efficiency and productivity. Eleven abstracts were selected for a full-text reading, and ten publications were ultimately included, as they met the inclusion criteria.

### ***Nordic Journal of Working Life Studies (NJWL)***

With regard to NJWL, a manual review was again performed on all published issues from Volume 1 Issue 1 2011 (the journal's first issue) to Volume 9 Issue 2 2019. The manual review began with a reading of all titles and abstracts of the aforementioned issues. The review was conducted based on the formulated inclusion criteria (Appendix 1). To take further steps to identify relevant publications, the manual review was supplemented with a search conducted using the journal's own search function. The following search terms were used: health, wellbeing, satisfaction, job stress, healthy work, organization, efficiency and productivity, as these terms were considered to correspond to the Swedish search terms. Seven abstracts were selected for a full-text reading, and a total of six publications included that met the inclusion criteria.

### **Screening of publications based on inclusion and exclusion criteria**

The main search identified studies in relation to the inclusion and exclusion criteria (Appendix 1), and was conducted in two steps. In step one the project experts manually reviewed all the abstracts for relevance with the help of the web-based Rayyan tool ([www.rayyan.qcri.org](http://www.rayyan.qcri.org)), whereupon 3,348 abstracts were excluded, 109 included and 2 eliminated, as they proved to be duplicates. In the event of uncertainty about a publication, it was discussed among the project experts. Full texts of the studies that met the inclusion criteria were ordered.

In step two the experts reviewed the full texts for inclusion based on the inclusion and exclusion criteria. This review was performed in the Mendeley reference management system, and 30 studies that failed to meet the inclusion criteria were screened.

A total of 79 articles were included using the process. Together with the articles from *Arbetsmarknad & Arbetsliv* and *Nordic Journal of Working Life*, a total of 100 articles were included for quality assessment. They were read and categorized by the experts based on a common categorization template (Appendix 2). An additional 20 articles were eliminated during the categorization process in accordance with the exclusion criteria, with the result that a total of 80 articles are included in this literature review. The categorization template was formulated to provide an overview of the content of the articles, and to facilitate their analysis.

### **Categorization and thematization of included publications**

All the included publications were read in their entirety and categorized systematically. The categorization was performed based on a template in which the reference, year, population, problem or purpose, main results, methodological approach, theoretical framework, form of employment and any focus on organization, efficiency, sex or gender, ethnicity, class, sector, country, etc. was noted for each included publication. The categorization template and an illustrative example of how such a categorization looks are presented in Appendix 2. The results of the categorization were used to describe the publications at an overall level (Section 3.1), and also to see whether any general patterns appeared in the publications with regard to the organization of work and organizational forms linked to employee health and wellbeing, and working organizations' efficiency and productivity. The categorization also showed that a majority of the publications pertain to the care, nursing and social services sectors, which reside largely in the public sector. Common denominators for publications within the public

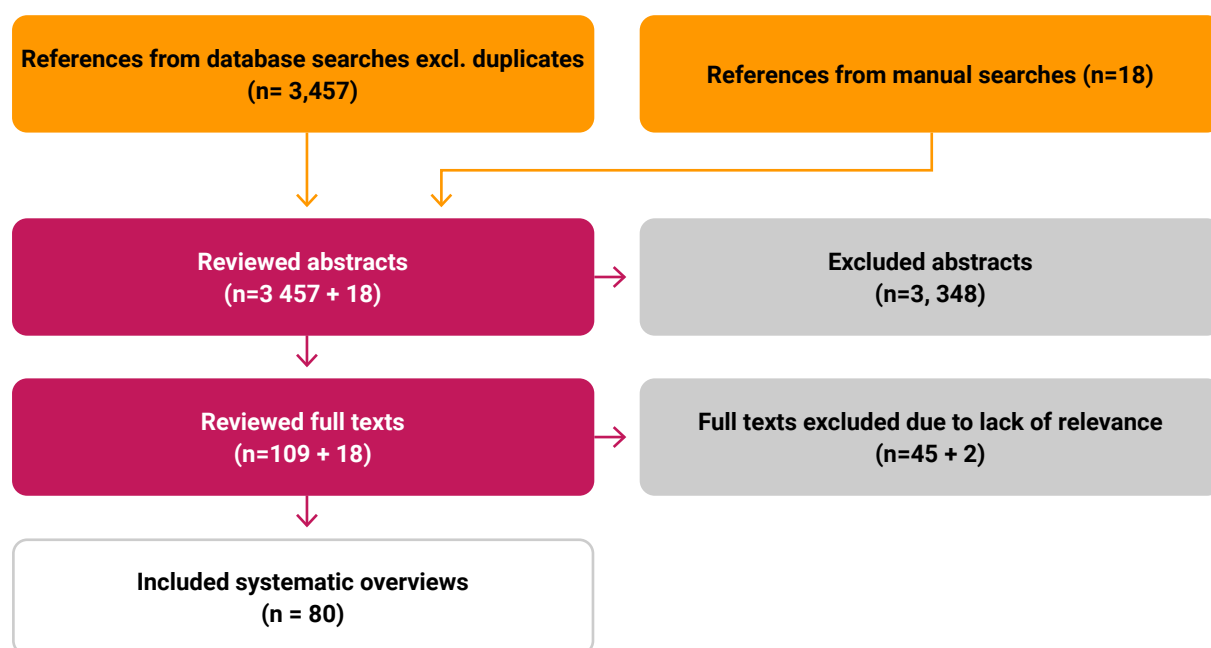
sector proved to relate to conflicting logics in the organization of work. From this we derive the first main theme, i.e. Conflicting logics in the public sector. The analysis also showed that a large share of the publications addressed the organization of work in time and space, which yielded another main theme: The organization of work in time and space, with a more or less pronounced focus on flexibility. The results for the two main

themes are presented with the help of sub themes in order to foster clarity and create a common thread.

## Structure of the report

The key terms for the summary are presented and defined in Chapter 2. The results are presented in Chapter 3, which also contains a section on identified knowledge gaps. Chapter 4 contains conclusions and general advice.

**Figure 1: The search process**



A list of all excluded studies is available at [mynak.se](http://mynak.se) in connection with this report.





## 2. Key terms

Given the task of creating the summary and its purpose, it is important to define and discuss the terms that this task and its purpose comprise. The terms consist of organization and organizational models, health and wellbeing, efficiency and productivity. These terms are used more or less explicitly in the included publications and are also more or less clearly defined. They are discussed and defined here to clarify how they can be understood and how we view them. The definitions have been obtained in part from the included publications whenever definitions could be identified in them, which is then stated explicitly below, and when such was not the case, which is in a way a result in itself, they are based on definitions and approaches from other scientific literature.

### Organization and organizational models

Neither the concept of organization nor the concept of organizational models are defined in the included publications. One generally accepted view on what constitutes an organization is that it is a group of individuals who create a coordinated system of activities based on a division of labour with a view to achieving specific goals over a longer period of time (Hitt, Miller & Colella, 2015). An organization is also characterized by continuity, which means that the organization continues even if its individual composition changes.

One general view on the organization of work is that it has to do both with the formal structure of the working organization (organization as noun) and with how the work is managed and allocated (organization as verb). The organization of work can also be viewed based on which forms of employment the organization uses, as forms of employment have a bearing on how work

is organized in time and space as well as, for example, numerically. Yet another means of identifying a focus on models for the organization of work is to look at the organizational concepts or trends applied in organizing work, such as New Public Management (NPM) or Lean Production.

### Health and wellbeing

The terms health and wellbeing are defined explicitly in only some of the included publications. This could be because the focus of the publications is not on health and wellbeing, but rather on how different ways of organizing work (including organizational forms) are manifested. Health and wellbeing are often handled implicitly, e.g. in terms of how a way of organizing work is perceived to affect job satisfaction. Bordi, Okkonen, Mäkinen and Heikkilä-Tammi (2018) maintain, in their included article, that most research studies that are conducted proceed on the basis of different factors, such as job satisfaction, stress, burn-out or work engagement to measure wellbeing. The factors on which one focuses in terms of wellbeing in relation to work are based to a large extent on the research discipline in which one is active. Job satisfaction is a domain-specific operationalization that relates to wellbeing in one's working life (Imhof & Andresen, 2018). Factors used in the publications included in the present literature review to measure wellbeing include job security, work-related demands, degree of control, autonomy, subjective wellbeing, social support, employability, quality in the work, work-related stress and work engagement (see for example Imhof & Andresen, 2018). Favourable conditions for competence development and learning may be viewed as preconditions for health and wellbeing, because favourable conditions for, in parti-

cular, competence development and learning can constitute a buffer against deficiencies in the work environment otherwise (Karasek & Theorell, 1990).

## Efficiency and productivity

The terms efficiency and productivity are undefined in all of the publications included in this literature review. Only a handful of the included publications offer a perspective in which both employee wellbeing and working organization efficiency and productivity or their equivalents are mentioned explicitly (Öhrling, 2014; Hansen & Høst, 2012; Lindfors & Hansen, 2018; Strandlund, Bernhard-Oettel & Låstad, 2018; Alverén, Andersson, Eriksson, Sandoff & Wikhamn, 2012; Ramstad, 2014). This could in any event be presumed to be partly attributable to these terms perhaps being used primarily in research fields that are not particularly focused on the organization of work or on health and wellbeing. Other terms that could be related to efficiency and productivity that are used in the reviewed publications include competitive advantage (Viitala & Kantola, 2016) and performance (Strandlund et al., 2018), which are used to describe working organizations characterized by efficiency and wellbeing. However, these terms too are left undefined in the publications.

In research concerning organizational efficiency and productivity, productivity is gene-

rally defined as a measure of the amount of product generated per unit of input (The Expert Group for Studies in Public Economics, 2013; Linna, Ukko, Pekkola & Melkas, 2010). A unit can consist, for example, of an individual employee or a group of employees (Hitt et al., 2015). Efficiency is a more complex concept, and consensus on its definition is lacking (Sharma & Singh, 2019; Unemo, 2012; Murray, 2006). One feature common to the definitions most often referred to as models for organizational efficiency in the scientific literature is that they pertain mainly to “how well” the organization is faring in relation to various set goals (Sharma & Singh, 2019). With regard to the term “competitive advantage”, an organization is described as having a competitive advantage if it “performs some aspect of its work better than competitors can or when it can perform the work in a way that competitors cannot duplicate, such that it offers products/services that are more valuable to customers”. (Hitt et al., 2015, p. 16).

Key terms for the summary have been defined above. One conclusion is that few definitions appear in the included publications, which means that conclusions drawn from these terms should be viewed with a degree of caution; different studies may have proceeded on the basis of different definitions, which are not made clear to the reader. In the following chapters we will present the results of our analysis of the included articles, based on the thematization performed during the analysis.

# 3. Results

The results of the literature review are presented in this section. We will first present an overall picture of the number of publications per year over the relevant ten-year period, the contexts (countries) in which the studies were conducted, the sectors in which they were conducted, and which methods and theoretical frameworks were applied in the publications. We will provide a more in-depth account of the results in the publications, based on the themes that emerged during the analysis of the publications.

## Overall description of included publications

Under this heading we will present an overall description of the publications included in this literature review. This description is intended to provide an orientation with regard to the included publications.

## Number of publications per year

The publications included in this literature review span a period of roughly ten years, from 2009 to 2019, spread over those years as per Diagram 1. From 2009 through 2014 an increase in the number of publications can be seen each year, while the numbers as of 2015 vary (only half of 2019 is included). Roughly 56 per cent of the publications included in the literature review were published in the last four and a half years.

## Number of publications per country

One selection criterion for the publications is that the study must pertain to or include a Nordic context. To show that the sample corresponds to the set selection criteria, the number of publications per included country is presented in Diagram 2. Sweden's prominence is due in part to the sample, which included the journal *Arbetsmarknad & Arbetsliv*, which focuses on conditions

Chart 1: Number of publications per year

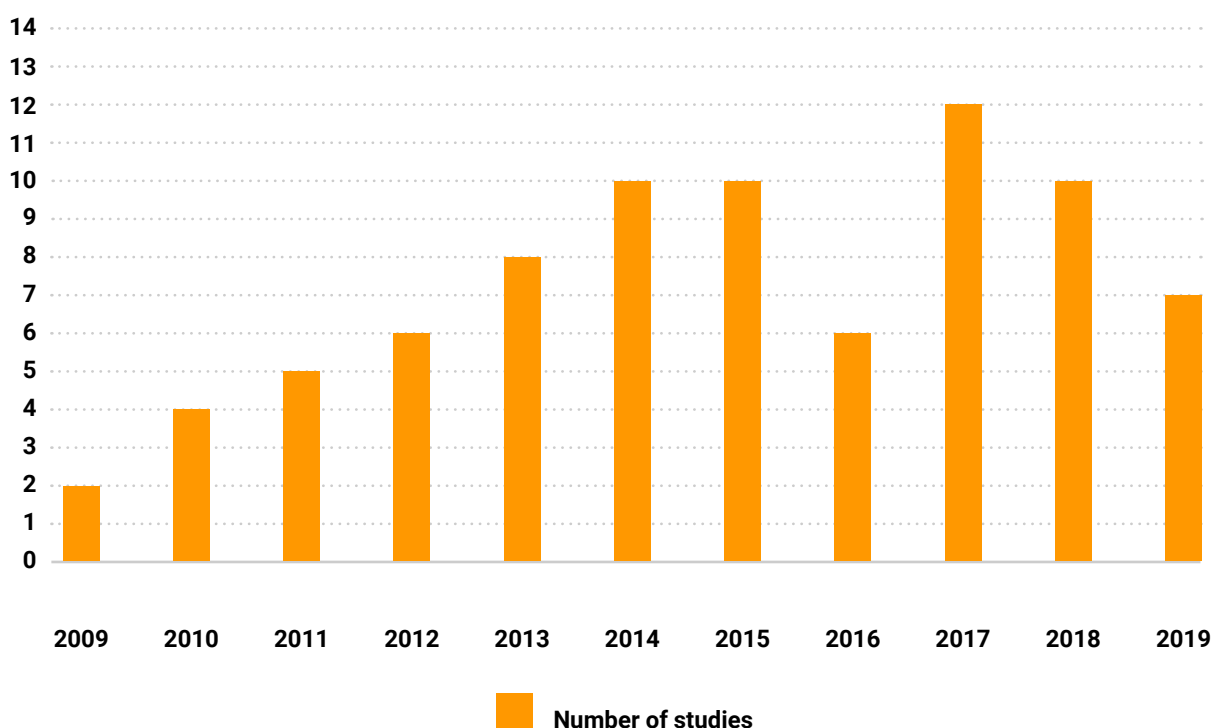


Chart 2: Number of publications broken down by country

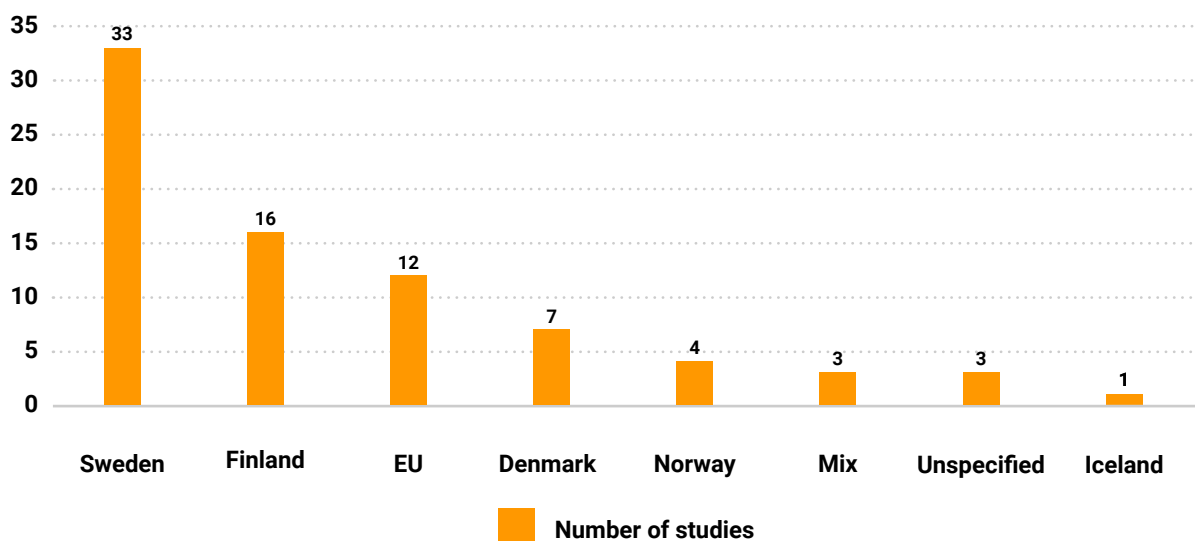


Chart 3: Breakdown by sector – SNI 2017

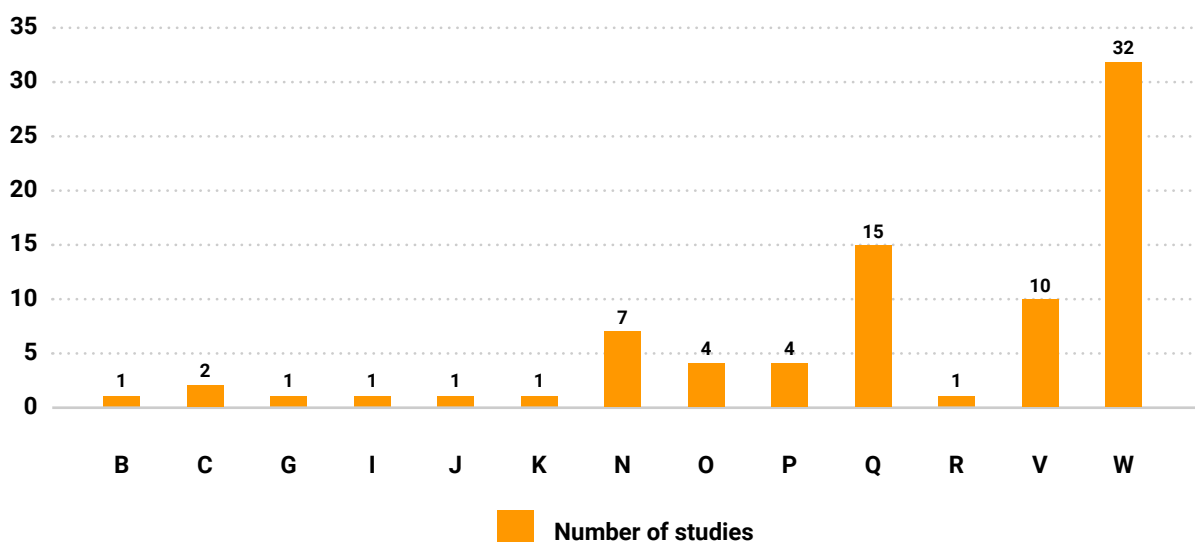
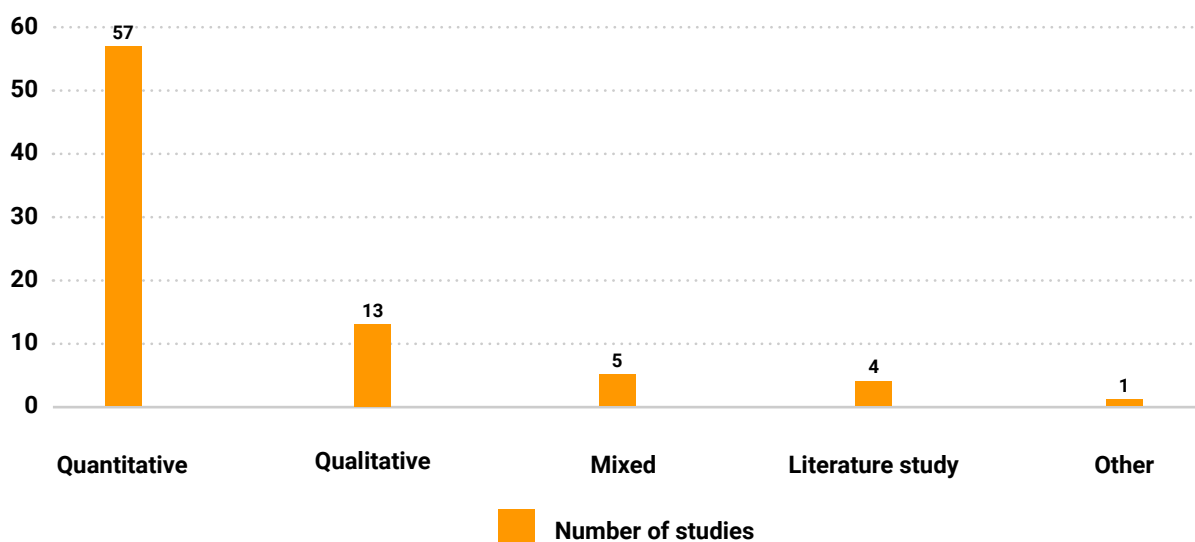


Chart 4: Number of publications per methodological approach



in the Swedish labour market and working life. Another possible factor has to do with Sweden's historically strong tradition of work environment research.

### **Number of publications by sector**

Diagram 3 shows the labour market sectors to which the studies pertain. The sector breakdown was determined based on SNI 2007. SNI 2007 is the standard for Swedish industrial classification in effect as of 2008 and is used to refer a company's operations to one or more industrial branches ([www.sni2007.scb.se](http://www.sni2007.scb.se)). Most of the articles are in Sector W, which stands for Unspecified. The articles that are included here use large databases that span the entire labour market, such as the European Working Conditions Surveys (EWCS). Other sectors that appear very often include healthcare, nursing and social services (Q) and staffing and recruiting (N). Multiple sectors appear in a number of cases, and are categorized as V. One common combination is for V to include Q (healthcare, nursing and social services) and N (staffing and recruiting).

### **Number of publications per methodological approach**

In the publications, the authors employ different methods to present and discuss the studied phenomena. The most common approaches in the publications are either qualitative or quantitative. The starting point used in the publications that take a qualitative approach is to try to understand and interpret social and often complex contexts, where the specific context in which the study was conducted is key to understanding and interpreting its results. In the publications that take a qualitative approach, semi-structured interviews are often used to collect empirical data from a smaller sample of informants. In other words, an effort is made in these publications to understand experiences and practices among the studied population and put them into a context. Statistical methods are used in the publications based on quantitative approaches to analyse data collected from various databases, such as the Europe-

an Working Conditions Survey, in which the included population often totals thousands of respondents. Here a causal link is sought between two or more variables, such as job insecurity and insomnia (see for example Mai, Hill, Vila-Henninger & Grandner, 2019) in order to draw general conclusions. The authors commonly proceed based on earlier research, and hypothesis-test their results, e.g. whether fixed-term workers exhibit less absenteeism due to illness than do permanent ones (see for example Oke, Braithwaite & Antai, 2016). With regard to which methodological approach is applied in the publications, the majority of the studies (57) were conducted using a quantitative approach; see Diagram 4.

### **Number of publications based on theoretical perspective**

It is difficult to visually convey which theoretical starting points, including theoretical models and analysis rasters, were used in each publication. One reason is that, in many publications, a framework for analysis was constructed on the basis of individual terms predicated on earlier research. Commonly occurring terms in the publications include job satisfaction, job insecurity, flexibility, NPM and precarious work. The demands-control-support model (Karasek & Theorell, 1990) appears most often in those publications in which the authors use existing theoretical models. It was used in 21 publications. The so-called effort-reward model (Siegrist, 1996) also appears, and was used in four publications. Both of the models address stressors at work, which can be linked to illness.

### **Analysis perspective**

It is generally accepted that structural factors such as class, gender and ethnicity are relevant in studies of the opportunities and obstacles that individuals and groups face in life, particularly working life. As a result, we have also looked to see if any patterns could be identified with respect to whether the publications proceeded on the basis of a class, gender or ethnicity perspective. Few publications were identified as having adopted an explicit

ethnicity or gender perspective, and none presented class as an explicit perspective. However, gender and ethnicity were included as variables in the quantitative publications, although no pronounced gender or ethnicity-based approach was emphasized. However, statements were found in these publications to the effect that a given phenomenon occurs more commonly for one gender. There is also a host of publications in which female-dominated professions are studied, which may be seen as an expression to the effect that female-dominated work environments are elucidated in particular, not least by focusing on the public sector. But even here the explicit gender perspectives in the analyses were few. Intersectional perspectives, i.e. those in which relationships between different power structures or categorizations (such as class and gender) are focused on, could not be identified. This is an interesting result per se, given that these so-called key categories, which have to do with societal structures, are essential to understanding the work environment for different categories of individuals and groups – both the actual work environment and the perceived work environment. The absence of focus on the foregoing could indicate an individual focus, while structural aspects in workplaces, the labour market and in working life are made invisible.

### Summarizing comments

In conclusion, it may be noted that nearly half the publications (38 out of 80) address different types of forms of employment. The form of employment used may be seen as a precondition for the organization of the work, but also as a means of organizing the workforce, and in turn the work, at a general level, making it relevant here. The focus is not on forms of employment per se, but rather on forms of employment as they relate to the organization of work as tied to health, wellbeing, efficiency and productivity. It is noteworthy that a majority of these publications focus on atypical forms of employment, i.e. some type of employment that does not include permanent positions, even though permanent

positions remain the most common form by a large margin. One explanation for this could be that such forms of employment entail more challenges for both those with and without permanent positions, and that researchers focus on them to a large extent for that reason.

In the next section the results are presented in the form of overarching themes, followed by concretizing sub themes that emerged in the analysis of the publications included in this literature review.

## Conflicting logics in the public sector

A large number of the included publications have to do with working conditions and the organization of work in public sector organizations, which may in part be thought to reflect the fact that the public sector has been characterized by institutional change in recent decades. This change is often explained as having to do with the introduction of NPM (see for example Bejerot, Forsberg Kankkunen & Hasselblad, 2015; Debesay, Harsløf, Rechel & Vike, 2014; Keisu, Öhman & Enberg, 2016; Trydegård, 2012). NPM can be described as a management and leadership philosophy, but it also naturally has direct implications in practice, i.e. including in terms of how work is organized, making it relevant here. The publications indicate that, at a general level, NPM focuses on the creation of, for instance, internal markets, measurable performance combined with streamlining, and continuous efforts to improve cost effectiveness (see for example Astvik, Welanders & Isaksson 2017; Bejerot et al., 2015; Trydegård, 2012; Allodi & Fischbein, 2012). There are of course different ways of describing both what NPM entails and what its effects will be. The focus here is on what is described as the effects of NPM.

If the public sector was formerly managed and led (and thus organized) based mainly on the logic of the profession and to some extent on that of the organization or, in other words, the logic of the bureaucracy, NPM entails a shift towards the logic of the organization/

bureaucracy but also, to some extent, towards the logic of the market. Within the field of Sociology of Professions, the professional logic (occupational professionalism) is, roughly categorized, described as being based on collegial authority, profession-specific knowledge, use of own discretion and trust on the part of management that the professional practitioners will themselves be able to make decisions as to how best to plan, execute and follow up their work, based on the knowledge they possess. On the other hand, the organizational logic may be said to be based on hierarchical authority and is driven from the senior management level. Rules, routines, standardization and assessments are viewed here as key elements in how best to organize the work.

With the new management ideal, arguments have been made in favour of planning, executing and following up on work in different ways than before. This is often described as a clash between logics. This clash is presented in many publications as problematic, based on the experiences of the professionals themselves, as is described below. The clash is described on the basis that the professionals identify more with the logic of their profession than with the logic of the organization, and the logic with which they identify is no longer afforded the interpretive priority that it was formerly perceived to have. As a result, factors that promote health and wellbeing are not identified within this theme; quite the opposite. Various aspects of problems rooted in NPM-influenced ways of organizing work are described below.

### **Conflicting demands**

Conflicting demands are described as an effect of the NPM-influenced way of organizing work. The professionals, i.e. the public sector professionals, thus most often identify more strongly with the so-called professional logic than with the bureaucratic logic (see for example Jansson & Parding, 2011). With NPM, the professionals experience conflicting demands when they themselves express that the logic on which they wish to base their

work and how it is planned, executed and followed up now stands in contrast to the ways in which the organization seeks to organize the work, i.e. based on principles around which the work is organized. In one concrete example the employees report feeling caught between different types of rationalities for how the work is to be organized, where one specific type of rationality, one specific type of efficiency and one specific type of cost-consciousness and policy goals are afforded interpretive priority (Astvik et al., 2017; Keisu, 2017).

Astvik et al. (2017), in a questionnaire study involving nearly 5,000 employees in social services, indicate that the introduction of NPM is contributing to tension between occupational and organizational professionalism. According to the authors, this tension between these two types of professionalism is resulting in social services employees experiencing heavier work-related demands and role conflicts, even as they also find that there is a lack of openness within the employing organization.

According to the authors, one consequence of heavy demands, role conflicts and a low degree of openness is that the social services employees, such as social service secretaries and officers, generally feel less loyalty to the organization than do their supervisors. This reflects their strong identification with occupational professionalism. The authors argue that to promote employee wellbeing, counteract staff turnover and maintain the quality of these services, employers should work to develop and ensure openness, so that employees have better means of influencing their work. This should also potentially reduce conflicting demands.

In one study aimed at critically investigating discourses regarding NPM and dignity in and on the job, Keisu (2017) focuses on how an attractive job is described by employees and supervisors in the elderly care field. The results of the study indicate that one group, the employees, position themselves based on a so-called dignity discourse while another group, the supervisors, proceed instead on the

basis of a so-called NPM discourse combined with a degree of dignity discourse when they describe what constitutes an attractive job. Keisu further discusses how working in the elderly care field involves heavy workloads and difficult working conditions, which can cause job satisfaction to suffer. According to Keisu, conditions favourable to creating a secure and comfortable work environment are viewed by the employees as something that can be achieved via structures for training and career advancement. Based on the discourse in the elderly care field regarding what makes such work attractive, Keisu identifies three different subject positions: the bureaucrat who proceeds from a neoliberal discourse on organizational efficiency, the opponent who proceeds from a discourse about dignity within the occupation, and the defender who proceeds from a discourse on dignity as a caregiver.

According to Keisu, it appears that supervisors in the elderly care field more often position themselves based on the neoliberal discourse (the bureaucrat), even as the employees position themselves via the discourse regarding occupational dignity (the opponent). Both supervisor and employees at the same time assume a position in the third discourse, which has to do with dignity as a caregiver (defender). Keisu's results show that there are tensions between different logics within elderly care that stem from the introduction of NPM within the sector, and it appears that the conflict between different logics is particularly prominent among those employees who hold no managerial position. Another study in which role conflicts and conflicting demands are experienced is Trydegård (2012), who argues that the reforms entailed by the introduction of NPM are contributing to contradictory ideas of what good care and nursing actually are, and how they are created.

Another study that addresses conflicting demands is a Danish quantitative study by Andersen et al. (2017). Here the associations between individual and work-related factors, including the work environment within Danish correctional treatment, are studied. The study results show that factors that can

contribute to employees running a high risk of burnout, which can be translated as a low level of health and wellbeing, include things such as excessively heavy quantitative demands and emotional demands in the relationships between correctional officers and inmates. Although the study does not focus on the organization of work or conflicting demands per se, it does indicate that health and wellbeing are negatively impacted when the work is organized in such a way that role conflicts and, in turn, a lack of clarity in roles, combined with low social support are present.

In one quantitative study, Björk, Bejerot, Jacobshagen and Härenstam (2013) have examined how a scarcity of organizational control for supervisors in public organizations can find expression in that the managers perceive their job duties as illegitimate. This means that supervisors within public organizations in which different units and departments have to compete with regard to the division of resources between one another, experience their job duties as illegitimate to a greater extent, which can have negative effects on health and wellbeing.

In summary, it is clear that when different groups of employees proceed on the basis of contrasting logics in terms of how best to plan, execute and follow up their work, the result is conflicting demands for the employees, who have to cope with working based on a logic that they do not consider best suited for their activities. This appears to entail a health risk.

## Reduced professional influence

Another aspect that recurs and is related closely to conflicting demands is that, when work is organized based on NPM principles, the professionals experience poorer opportunities to exert professional influence. There are numerous publications in which this aspect is discussed. For example, Jansson and Parding (2011) draw, via a qualitative study, a picture of how the work of upper secondary school teachers and nurses is organized. The teachers work in interdisciplinary teams based on the aim – from management – to improve quality.



The new organizational habitat goes against the teachers' own desires for the work to be organized in subject-based teams. The work of the nurses is organized and occurs in the form of telephone advice, and this way of organizing the work is again described as proceeding from changes made by the organization with a view to improving quality and making the operations more efficient. Telephone advice proves to be perceived as entailing that daily encounters with other nurses in the practice are organized away, and that the work is instead characterized more by working alone than previously. The authors discuss how these new ways of organizing work can be seen as an expression of being "customer-centric", which can be related to NPM, and how this results in the teachers and nurses experiencing both reduced social support in their work and the degradation of conditions surrounding daily learning and competence development as, in purely concrete terms, they no longer sit together with one another and consequently do not meet as often as they did before. The foregoing example certainly elucidates the organization of the work in terms of conditions for social support, learning and competence development. At the same time, the authors also show that the logic of the organization is granted interpretive priority in terms of the best way to organize the work, namely a way that the professionals do not consider the best way. The employees' professional influence may be seen as restricted, and the organizational influence as strong. Another study that focuses on teachers in particular is that by Allodi and Fischbein (2012) who, via a quantitative study, show that the teacher's role and profession is changing in many countries as a result of the introduction of NPM-related management principles. In the case of teachers this has to do, for example, with greater top-down management, an increased focus on metrics and a higher degree of standardization, while the teachers at the same time find that their autonomy and influence are being diminished.

Ede and Rantakeisu (2015) show, in a qualitative study of care work and the introduction

of flexible working hours, that the altered way in which the work is organized temporally has led to their perceived influence over their work having diminished, and their perceived workload having increased. It thus becomes clear here that the organization of work can be tied to a diminished influence on the work. With regard to social services, Astvik et al. (2017) show, via a quantitative study, that there are significant differences between various occupational groups in the social services field in terms of their means of influencing their work. Care assessors perceive themselves as having the least influence, while the supervisors have the most. The authors discuss the fact that, in earlier research in which the focus was on the consequences of management in the public sector, such diminished influence was in fact in evidence, although conflicting demands and increased workloads are also associated with negative health effects for the employees in this sector. Yet another study that points to diminished professional influence is Trydegård's (2012) quantitative study, which involved some 2,500 respondents from Denmark, Sweden, Finland and Norway. The study describes how the introduction of NPM in the elderly care field with a view to increasing efficiency and productivity through greater standardization and micro-management is affecting the daily work in a negative way, not least with respect to the degree of control at work. According to Trydegård this is due in part to the diminution of the employees' freedom of action and influence over work.

According to Bejerot et al. (2015) the introduction of NPM in both the education and healthcare sectors is contributing to such organizations becoming more hierarchical and stratified in terms of demands and influence. According to the authors, this increased stratification is manifested mainly in teachers having less leeway for professional autonomy and influence over the conformation of the organization, and fewer possibilities to apply their own expertise within the framework of their jobs. The authors also argue that even as professional influence has decreased, or been lost, in some public sector professions,

certain other professions have created important new positions with greater influence. They mention, for example, medical experts with job duties within governing bodies and school administrators as separate public sector professions whose members have greater responsibilities and influence. This reflects that the logics on which work is based and organized are logics that appeal to individuals at the managerial and executive levels, rather than to operative employees out in the organization.

In contrast to the foregoing, Öhrling (2014) shows, via a longitudinal study based on both questionnaire and interview data of cleaners under municipal auspices, that greater autonomy, including greater participation and greater responsibility, contribute to increased job satisfaction and improved health, which are evident in both decreased absenteeism due to illness and in self-assessed health.

Collectively these studies present a picture of how NPM-influenced ways of organizing work are perceived as diminishing professional influence. Although explicit links to health and wellbeing are not always made, a picture emerges which indicates that diminished professional influence is perceived negatively by employees, while greater influence can lead to greater job satisfaction and improved health.

### Increased workload

Another aspect of the problems associated with the NPM-based ways of organizing work has, in purely concrete terms, to do with them entailing an increased workload; more specifically, an increased degree of documentation or, in other words, a higher degree of administrative tasks and, in turn, bureaucratization. Here we find described the ways in which this leads to an intensification of the work, in which the employees experience a higher workload level.

One example is Trydegård (2012), who reports that employees in the elderly care field in the Nordic Region experience a heavier workload as a result of the altered organization of the work due to the introduction of NPM. For example, Trydegård shows that the care work is micro-managed, as it has been

divided into smaller time-limited units, causing the employees to experience increased time pressure. This increased time pressure is described as entailing that the employees find that they have a heavier workload, with the result that they cannot adapt the care they provide based on the individual needs of their elderly patients, which is what they want to do. The issue here is thus not just an increased workload, but also that the increased workload means working on the basis of a logic, or principle, if you will, that flies in the face of the employees' personal views of how the work needs to be done in order to meet the needs of the elderly.

In the education and healthcare sector, Bejerot et al. (2015) note that the introduction of NPM leads to heavier workloads for employees in those sectors. In the school the authors argue that heavier teacher workloads have arisen partly as a result of reforms concerning their mission as teachers, such as the individualization of instruction and the elimination of the ceiling on class sizes, and partly through the implementation of the management principles that NPM entails, such as a greater emphasis on measuring teacher performance. Doctors' workloads have also increased, although not to the same extent as for teachers. One explanation offered by the authors for why doctors have a greater degree of legitimacy in the public bargaining process is that they can point to standardized quality requirements and thus more easily set limits on the extent to which their work is intensified.

In one quantitative study involving nearly 700 welfare employees, Aronsson et al. (2015) examined work environment factors on the job. Although the focus is not explicitly on the organization of the work, it is clear that when work is not organized in way that accommodates recovery, there is a risk of mental illness among the employees. Another study that is consistent with these results was conducted in a social administration context, where Göransson et al. (2013) studied the effects of a preventive workplace-based intervention on the participants. The authors take the approach that the employees are actors

with freedom of action to make their own decisions. The results show that the participants in the intervention perceived themselves to be able to cope with demands in a better way. Individuals who have better balance at work and in their work environment also enjoy better health; they enjoy their jobs more and feel more rested. This study thus indicates that the organization of work in a way that offers accommodation for a balanced working situation is beneficial to health and wellbeing.

Collectively, these studies paint a picture in which the work is characterized by a heavier workload that can be tied to NPM-related principles. In purely concrete terms we see a focus on documentation, which takes time, and micro-management of the work to an increased extent. However, it is not just more job duties that are found have been imposed on the professionals, but also duties that stand in contrast to what those practitioners themselves consider important to their work activities and in what ways, as well as the elements that are included in their professional roles. Nor are explicit links to health and wellbeing made with regard to increased workloads, but it is clear that the professionals do experience general dissatisfaction and stress because of the intensification, which may be viewed as a risk for negative effects on health.

### **Reduced social support**

Another effect of the organization of work based on NPM principles consists of perceptions of diminished opportunities for social support. One example, which is also noted above, involves the ways in which teachers and nurses find that the organization of their work degrades their opportunities for receiving social support from the colleagues with whom they argue themselves to have the most in common, not least in terms of where their workstations are located (Jansson & Parding, 2011). This is because the NPM-based organization entails interdisciplinary work teams for teachers, leading to a low degree of proximity to colleagues who teach the same subject, and telephone work for nurses, leading to a low degree of proximity to other nurses. The

work is described as being organized in this way, despite the fact that the teachers and nurses view their colleagues as key in terms of obtaining support in their daily work.

Bejerot et al. (2015) show that employees with managerial responsibilities in both education and healthcare report that their means of allocating the work so that the employees can receive the attention they need have been diminished over the last two decades. According to the authors, the reason is that the introduction of NPM has led to employees with managerial responsibilities being given greater areas of responsibility and fewer means of defining their job duties. Trydegård (2012) also notes that the introduction of NPM contributes to bigger areas of responsibility for supervisors and more emphasis on financial management, and on running the operations in a more “businesslike” way. One conclusion drawn by the author is that there is less time to provide support for the employees because the jobs of their supervisors have changed. For example, Trydegård argues that the diminished support for employees in the healthcare field has meant that they are increasingly exposed when they have to make difficult professional decisions, as their supervisors are less available. An overall picture emerges in which professionals’ work is being organized in such a way that support from their collegial peers is diminished, even as their supervisors have more subordinates and less time for them. This signals that the organization of the work in practice serves to reduce the support at work. Although health and wellbeing are not discussed explicitly in these publications, it is generally accepted (Karasek & Theorell, 1990) that support is a key component of a good work environment, which is why the foregoing results can be seen as problematic.

### **Reduced opportunities for learning and competence development**

Yet another aspect has to do with the ways in which work in the public sector is organized in relation to conditions surrounding learning and competence development. Parding and

Berg-Jansson (2018) describe, in the context of choice and decentralization reforms, how conditions surrounding learning in teachers' work are perceived as circumscribed. They show how the particular subject they teach is absolutely key for upper secondary school teachers. Despite this, the work is not perceived as being organized in a way that enables daily subject-related learning. This is described in terms of the opportunities for learning being limited in both time and space. The study reflects results from earlier studies in education and healthcare contexts (see for example Jansson & Parding, 2011). In one study of elderly care, factors that employees considered attractive in their work were analysed (Keisu, 2017). The employees were reported as viewing conditions surrounding competence, advancement and career opportunities as an important part of an attractive job. Keisu at the same time paints a picture of employees who are critical towards management because of a lack of career opportunities and structures for competence development.

Even though there are only a few publications in which the focus is on the conditions surrounding competence development, learning and career opportunities, the composite picture is that an organization of work that incorporates favourable conditions for such things is an important determiner of whether a job is to be viewed as attractive. No direct link is made here between the conditions surrounding learning, competence development and health and wellbeing. However, it is still reasonable to assume that these things are important factors at work in the form of buffers against problematic work environments (Karasek & Theorell, 1990).

### From public to private

The included publications also include one study in which forms of ownership and health and wellbeing are discussed. In one quantitative study Kokkinen, Virtanen, Pentti, Vahtera and Kivimäki (2013) considered what effects organizational change in the form of privatization has on long-term employee sick-listings. The study results show that

privatization per se does not contribute to employees being sick-listed long term to a greater extent than when the organization was under public auspices. However, the authors note at the same time that this is because the workforce is not reduced after reorganization and remains sufficient to discharge its job duties. The study states that the employees who are reorganized to work under private auspices exhibit marginally longer long-term absenteeism due to illness than before.

### Summarizing comments

In summary, the publications that elucidate the work environment in the public sector may be said to show that new ways of organizing work that can be linked to NPM principles are, by and large, described as being perceived negatively by the professionals, i.e. the public sector professionals. It should be noted here that NPM is an umbrella term for a management and leadership philosophy, and it can thus take different forms of practical expression. This makes it difficult to claim that A leads to B. A picture is instead formed in which a host of problems for the employees are identified in the context of NPM.

The problems have to do largely with public sector professionals finding themselves caught between logics in terms of how best to plan, execute and follow up their work, i.e. their professional logic and the organizational logic. Because the professionals identify with, and thus see the relevance of, the professional logic to a greater extent than the organizational logic or the market logic, a clash occurs. To do their jobs in a way that is not perceived as optimal within their professional cadre, whether it be in terms of efficiency or content, engenders dissatisfaction and stress, which could also conceivably lead to poor health and diminished wellbeing. It also becomes clear that the various subheadings under which the results are described overlap to a large extent, which means that the factors are bound up with one another.

## Temporal and spatial aspects of organization of work– forms of employment and flexibility

The foregoing theme had to do with how the work in a specific sector is organized, and its implications for health and wellbeing. The theme in this section instead spans sector boundaries and also encompasses the public sector, with a focus on how work is organized temporally and spatially. Here we describe various aspects of the organization of work in time and space as they relate to employee health and wellbeing. The ways in which work is organized in time and space overlap in many cases, and they cannot be viewed as entirely separate; for example, a temporary worker may be perceived from the viewpoint of the working organization as spatially flexible, while being perceived from the viewpoint of the ordering organization as temporally flexible.

### The temporal organization of work

The organization of work in relation to health and wellbeing can be viewed in the light of temporal aspects. Initially we will describe results relating to job security, followed by various forms of employment (temporal) and, finally, results relating to the disposition of working hours.

#### *Job security*

Job security has to do with feeling assured that one's position and work will continue, that circumstances are stable. Job security may thus also be viewed as a temporal aspect of how work is organized. Job security is also a factor that affects health and wellbeing. De Witte, Vander Elst and De Cuyper (2015, p. 110) state that the opposite of job security, i.e. job insecurity, is characterized by the perception that one's job is threatened, and has been defined as "an overall concern about the continued existence of the job in the future". De Witte et al. proceed on the basis that the perception of insecurity is subjective, which means that it can be perceived in different ways, thereby entailing that employees within

the same enterprise will perceive varying degrees of job insecurity. According to the authors, this means that some employees will fear that they will be sacked even though there are no objective grounds for such a presumption, even as other employees will feel certain that they will be able to keep their job, despite the presence of actual risks that they may lose it. They also argue that there is generally a correlation between the subjective assessment of an employee's risk of being sacked and the objective risk of losing their job. They draw the conclusion that perceived job insecurity is a reflection of the objective labour market position in which the employees find themselves. The authors further note that there is a distinction between quantitative and qualitative job insecurity. Quantitative job insecurity finds expression in worry over the loss of the job per se. Qualitative job insecurity finds expression in that the individual feels worried about aspects of their job, such as their working conditions, compensation or opportunities for career advancement.

A Finnish quantitative study by Kinnunen, Mäkikangas, Mauno, Siponen and Nätti (2011) investigates links between perceived employability and burnout, diminished psychological wellbeing and self-classed job performance between involuntary fixed-term workers, voluntary fixed-term workers and permanent employees. The results indicate that voluntary fixed-term workers perceive, to a higher degree, more protection against negative psychological wellbeing and burnout compared to involuntary fixed-term employees.

Self-perceived employability is at the same time important for permanent employees as well. The authors conclude that self-perceived employability has a direct correlation with employee wellbeing, regardless of the type of position in question. De Cuyper, De Witte, Kinnunen and Nätti (2010) is another study that focuses on job security. The authors study the links between job insecurity, employability and wellbeing among permanent employees in a Finnish quantitative study of a nationally representative sample of just over 4,000 respondents. Here we find results

showing that high quantitative job insecurity (losing the job) has a negative impact on job satisfaction. The authors also show that high qualitative job insecurity (the conditions of the employment) correlate negatively with self-assessed health status among permanent employees. The temporal organization of the work is made visible here again in the form of the temporal duration of the employment and how it relates to health and illness.

There are other examples of publications in which the problematic effects of job insecurity are described, and where a link between job insecurity and various negative effects on the employee is shown. These effects impact individuals both at work and outside of work. In one meta-analysis, Llosa, Menéndez-Espina, Agulló-Tomás and Rodríguez-Suárez (2018) review 56 earlier studies of separately independent samples that included a total of just over 53,000 participants, and find a significant correlation between subjective job insecurity and mental health in the form of depression, anxiety and emotional exhaustion. Perceiving one's job as being uncertain can, in other words, have negative health effects.

Insomnia can also arise as a result of job insecurity. In a quantitative study based on data from the European Working Conditions Survey, Mai et al. (2019) show a correlation between job insecurity and general insomnia. Strandlund et al. (2018) show, via a cluster analysis, that individuals with alternative jobs, i.e. jobs that do not include permanent positions, may experience negative consequences in terms of financial worry.

In the Nordic context there is at the same time one example, involving hotel cleaning staff in Denmark, showing that the conformation of the social insurance system can contribute to weakening the correlation between job insecurity and financial worry (Eriksson & Li, 2009). The study describes how the so-called flexicurity model used in Denmark results in what could otherwise be perceived as job insecurity with negative consequences not being so, as long as a system is in place that covers individuals, such as flexicurity. Eriksson and Li also show that in-

dividuals may feel job satisfaction if they perceive the possibility of so-called work-life balance. In a European study with nearly 12,000 respondents, De Moortel, Vandenheede and Vanroelen (2014) examined whether low job quality is negatively associated with employee mental wellbeing. The authors show that countries that have welfare systems based on principles that support the possibility of balancing work with free time and family are less vulnerable to problems associated with mental illness stemming from low job quality.

Virtanen, Janlert and Hammarström (2011) analyse the interaction between perceived job insecurity, temporary employment and health in a quantitative study involving just over 1,000 Swedish respondents. The results show that job insecurity has the same negative impact on health regardless of whether the employees hold fixed-term or permanent positions. According to the authors, the perception of job insecurity depends largely on whether one's own job is threatened, or if there is a risk of losing job duties. The authors argue that this means that policies aimed at improving employee wellbeing are a key factor to take into consideration when striving for greater flexibility in terms of forms of employment.

The study by Bernhard-Oettel, Leineweber and Westerlund (2019) looks at forms of employment as they relate to emotional exhaustion. The study is relevant here, as it shows how the way work is organized in terms of forms of employment relates to health, or rather to illness. The authors examine the ways in which working conditions related to emotional exhaustion (control, demands, support) differ and change for permanent employees, fixed-term employees, the self-employed and employees who changed their form of employment in the years 2008–2010. The study is quantitative, with just over 6,000 respondents, and was conducted in Sweden. The study results provide no clear indication that the segmentation of the workforce into a core and a periphery is present, but rather it appears that the self-employed generally have better working conditions

than either fixed-term or permanent employees, which is consistent with earlier research that studied working conditions based on forms of employment. One notable conclusion drawn by the authors is that forms of employment were affected in different ways during the financial crisis; the reduced work-related demands were greatest for those with fixed-term contract positions and the self-employed, even as those holding permanent positions perceived a diminished degree of control over their jobs. According to the authors, this reduced level of work-related demands associated with the financial crisis, combined with the perception of social support and control over one's work, caused the level of emotional exhaustion among Swedish employees to decrease. This may be explained in that the financial crisis contributed to a less demanding work situation for many employees, as Sweden's exports and GNP fell, even though Sweden fared relatively well compared with the rest of Europe.

In a quantitative study involving just over 2,500 respondents from five different European countries, de Jong (2014) analyses whether the type of employment contract affects the association between organizations' externalization motives, i.e. their reasons for taking on fixed-term workers, and the mental wellbeing of the employees. The results show that the type of employment has important consequences for the association between externalization motives and job insecurity, work-related irritation and life satisfaction. According to de Jong, organizations' externalization motives have a stronger association with the wellbeing of permanent employees than with fixed-term workers. In concrete terms this means that the hiring of fixed-term workers based on reactive restructuring motives, such as cost cutbacks, appears as a threat to the permanent employees, and contributes to lowering their perceived level of security and comfort. Moreover, de Jong argues that the type of employment does not affect the relationship between flexibilization motives and job insecurity, which may be explained in that employees perceive flexibilization moti-

ves as an indication that the organization is being affected by more difficult times, while at the same time not signalling to the permanent employees that their jobs are in danger. One general conclusion advanced by de Jong is that externalization motives are associated with psychological wellbeing in a different way for permanent employees and fixed-term workers, which means that temporary workers are affected to a greater extent by organizations' externalization motives than are fixed-term workers.

Kalleberg (2018) discusses working conditions based on his earlier research concerning six industrialized nations, including Denmark, which represent different welfare systems and labour markets. Kalleberg studies how precarious working conditions differ from country to country, and the consequences that precarious working conditions have in terms of, for example, perceived job insecurity, financial uncertainty and subjective wellbeing. According to Kalleberg, precarious working conditions can have an effect on subjective wellbeing, and thus have a negative impact on health at the individual level. From this point of departure, he presents three proposals for how flexibility can be conformed to meet employers' requirements while at the same time providing opportunities for individuals to cope with the negative consequences associated with this type of flexibility. First, the social safety net should contribute to spreading risk and helping individuals cope with the feelings of distress and uncertainty that are associated with precarious working conditions. Second, there should be greater access to formal education and lifelong learning, as well as opportunities for retraining to prepare and help them manage changes in their working lives. Kalleberg concludes that changes in labour legislation and regulations should be made in order to protect all employees, and not just those who are considered to hold precarious positions.

A study by Piasna et al. (2013) is yet another that focuses on forms of employment, and more specifically on vulnerable employees. Starting from a broad European quantitative study from the fifth wave of the

European Working Conditions Survey 2010, which included Sweden, the authors look into the extent to which vulnerable employees, defined as women with a low level of education, have access to participation and influence via HRM practices, and how those things affect their perception of “job quality”. HRM practices include local workers’ councils or direct daily communication emanating from and initiated by management. The study results show that those employees who are designated as vulnerable have less access to direct forms of participation and communication than do other employees. Furthermore, the authors show that communication and access to consultation at the workplace level has a positive effect on employees’ perceived “job quality”.

Task-based and representative participation in HRM practices has a positive effect on all employees’ perceived “job quality”. Based on the study results, the importance of including all groups of employees in participation at the workplace is emphasized, as it confers benefits in terms of perceptions associated with “job quality” and the work environment, which have effects on employee wellbeing.

All in all, it is evident that jobs that are perceived as being uncertain are bound up with negative effects at the individual level. This means that there are risks with respect to the health and wellbeing of individuals when work is organized in a way that is perceived as temporally uncertain. The effects are also dependent on the individual’s attitude. It is, however, important to problematize each individual’s claims, and thus their attitude. Of course, an individual’s attitude also has to do with their position in the society. For example, a woman of foreign origin with a low level of education and a highly educated man born in Sweden will have different attitudes, which are related to their respective social positions.

### *Forms of employment*

Here we will present results pertaining to the organization of work based on different temporal aspects of the employment format, i.e. permanent employment, fixed-term

contract employment and temporary agency employment, while also including the organization of work during the workday and the working week.

Permanent employment is a means of categorizing work temporally. The typical ideal so-called standard employment relationship (SER) is characterized by a combination of full-time work and stable conditions, which have been bargained for collectively (see for example Van Aerden, Moors, Levecque & Vanroelen, 2015). This employment relationship was formerly dominant but has recently come under challenge as the labour market has come to be characterized by a greater degree of flexibilization which, for employees, often finds expression in fixed-term contract positions of various kinds. In other words, the flexible approach to organizing work manifests in that an ever-growing proportion of companies and organizations choose to avail themselves of more fixed-term contract positions rather than permanent positions. At the same time, researchers such as Dekker and van der Veen (2017) show that a permanent position generally entails higher “job quality”. The authors argue that it is also becoming clear that different groups of individuals have better or worse chances at “job quality”, with gender, education level and occupation each exerting an influence. Men in high-status occupations have the best chances at “job quality”, and the higher the level of education the better those chances are, which indicates that structural inequalities certainly exist.

Fixed-term contract positions offer another means of categorizing the organization of work temporally. One common way of describing today’s more heterogeneous employment relationship is in the form of a core consisting of employees with permanent positions and stable working conditions, and a periphery consisting of employees with fixed-term employment relationships, and thus more uncertain terms of employment. One example of how work can be organized temporally is thus in the form of various kinds of fixed-term contract positions. For example, Kretsos and Livanos (2016) use the



European Union Working Force Survey and analyse the extent of precarious employment situations. They argue that 10 per cent of the total workforce may be characterized as being subject to precarious conditions.

Most have to do with involuntary part-time and temporary positions. Groups with these forms of employment stand out as particularly vulnerable and run a greater risk of getting stuck in precarious positions than do other groups. Precarious working job situations are defined here in terms of risk. Bambra, Lunau, van der Wel, Eikemo and Dragano (2014) also problematize fixed-term contracts, based on a European study that took the European Working Condition Survey as its starting point, in which they show a correlation between fixed-term contracts and “not good” with respect to health. Also based on an analysis of the European Working Condition Survey, Aleksynska (2018) shows that temporary employment relationships, i.e. when the job does not involve a permanent position, but rather some type of fixed-term arrangement, can be tied to negative effects on job satisfaction.

Another study in a Swedish context is by Waenerlund, Virtanen and Hammarström (2011), who take a quantitative approach to study whether fixed-term contract forms of employment are related to non-optimal self-assessed health status and psychological wellbeing. The study results show that fixed-term contract forms of employment have a correlation with poorer self-assessed health, even after adjustments have been made for previous health status and sociodemographic factors. According to the authors, the results of the study indicate that there is a relationship between the type of form of employment and self-assessed psychological wellbeing and health status, and that this relationship may be explained by factors such as job uncertainty, low financial margins and work-related stress. The study results support other research which has shown that job insecurity is experienced more often by fixed-term contract employees than by permanent employees. One conclusion presented by the authors is that fixed-term contract positions are as-

sociated with poor self-assessed health and psychological wellbeing, even in countries that are considered to have a high level of social security, such as Sweden. According to the authors, the fact that fixed-term workers in countries with good social safety nets still experience job insecurity may be due to the fact that some of the terms of employment for fixed-term contract positions are universal, and independent of any national welfare regime. Because countries such as Sweden continue, despite their highly developed social safety nets, to exhibit differences in health between individuals with different forms of employment, the authors consider that additional efforts should be made to reduce health-related differences between different forms of employment in the labour market.

The results for fixed-term contract positions in relation to the organization of work are, however, not entirely unambiguous. For example, Imhof and Andresen (2018) note, in a literature review of 54 publications, that the research on the potential negative effects of fixed-term contract positions is equivocal. For example, Llosa et al. (2018) argue that some individuals with a fixed-term position may experience stress (which finds expression in the form of frustration, insecurity, powerlessness and a sense of unfair treatment) while other individuals perceive their fixed-term contract position as a positive, in that they view it as a challenge and a learning opportunity. Other researchers (see for example Bernhard-Oettel, Rigotti, Clinton & de Jong, 2013; Kauhanen & Nätti, 2015) note that the individual's volition with respect to the form of employment, as well as the working conditions, can have an effect on their perception of wellbeing. Bernhard-Oettel et al. (2013) show, for example, that differences in perceptions of job insecurity may be attributable to differences in preferences for fixed-term contract positions. In simple terms it may be said that those who desire a fixed-term contract position may perceive their fixed-term contract position positively, while those desiring a permanent position may perceive the fixed-term position negatively.

Strandlund et al. (2018) study commercial employees and argue that flexible positions need not entail only negative effects for the individual. As an example, the authors argue that in the case of students, flexible positions may instead have a positive effect, as those who wish to do so can combine work with their studies. Moreover, Juliá, Vanroelen, Bosmans, Van Aerden and Benach (2017) argue, based on a quantitative study, that some prefer fixed-term contract positions because they perceive them as challenging in that they offer opportunities to work in different workplaces. Ek, Sirviö, Koiranen and Taanila (2014) study the effects of precarious work in relation to mental wellbeing among 2,100 younger individuals in a Finnish context. The study results indicate that work-related stress and the level of education play an important role in the relationship between psychological wellbeing and younger people with a history of precarious jobs. The authors argue that a precarious job is not, per se, a strong indicator of negative effects on individuals' psychological wellbeing, but rather that the quality of the job must also be considered. The results support the view that, for example, a low level of control at work and heavy demands leading to work-related stress play an important role in the relationship between precarious jobs and young people's work-related mental wellbeing. The results further indicate that a higher level of education serves as a resource that can protect precariously employed women against negative effects on their work-related mental wellbeing even as a high level of education combined with precarious jobs for men entails an increased risk of negative effects. It is also clear that the situation can differ for different groups of individuals.

There are thus both studies that point to problems and studies that take a sort of "it depends" approach. Even though this may be said to reinforce the "problem" results, there is research (Reuter et al., 2019) that points to a statistically significant correlation between fixed-term contract positions and the presence of illness, with individuals in fixed-term contract positions exhibiting a higher presence

of illness than permanent employees. Amilon and Wallete's (2009) study is another concerning forms of employment and sick-listing in which temporary employment relationships are discussed that are based on flexibility for the employer, but pose a risk to the individual. Based on a quantitative study, they show that sick-listing reduces opportunities for permanent employment among women, and increases the risk of joblessness among men.

Caring for children increases the risk of joblessness for women. The authors argue that there are major differences between different temporary jobs, but that the trend persists. Saloniemi and Salminen (2010) describe, in a Finnish context, the relationship between the form of employment and work-related injuries. Based on earlier research regarding workplace accidents, the authors hypothesize that there is a positive correlation between fixed-term contract positions and workplace-related injuries. The results are negative, i.e. the hypothesis that those in fixed-term contract positions should be at a greater risk of injury on the job does not hold up. The authors argue that this can be explained in that, in a Finnish context, fixed-term contract positions are most prevalent in the public sector, e.g. in educational and healthcare organizations, which are traditionally not considered to be as prone to work-related accidents as is the case in, for example, the manufacturing industry.

According to Ojala and Pyöriä (2019), precarious work, which includes jobs and positions that are temporally unpredictable, is negative for the individual at an overall level. Based on a quantitative study involving over 13,000 respondents, the authors show the relationship between precarious work and the risk of early retirement due to illness.

The results from the study indicate that employees who may be characterized as having precarious jobs run a significantly higher risk of having to retire early due to illness. However, it is not short periods of precarious work that increase the risk of retirement due to illness, but rather when multiple precarious jobs are accumulated over an extended period of time, and where the feeling of perceived

low employability is palpable. At the same time, Pyöriä and Ojala (2016) argue in another article that employees' subjective perceptions and fears of becoming jobless may be a more relevant factor than precarious work per se, i.e. when the individual rates their chances in the open labour market. Another study tangential to Ojala and Pyöriä's is that by Nielsen, Dyreborg and Lipscomb (2019) who, in a Danish qualitative study, examine how the concept of precarious work finds expression in various groups of young employees, and whether the precarious job can be viewed as a transitional period in the careers of young employees. The study results indicate that the volatile and uncertain jobs function, for some young people, as transitional positions from their studies or apprenticeships, while other young workers risk getting stuck long-term in uncertain and insecure precarious positions. The authors argue that a fixed-term contract position does not automatically entail that a job is to be viewed as precarious. The young employees who risk getting stuck in uncertain positions are those who, for example, lack education and are consequently consigned to the margins of the labour market. The authors emphasize an active labour market policy intended to bolster the position of young workers in the labour market by building their competence and qualifications as desired in order to mitigate the risk that they will end up stuck in precarious jobs long term.

Temporary employment is another means of organizing work temporally. Temporary staffing agencies are thus a variant of the flexible approach to organizing work. Here the work is organized for a shorter or longer period of time. In Sweden individuals can be permanent employees of a staffing agency, although they may also be hired on a more temporary basis. The position is with the staffing agency, while the work is done for the client organization. This way of organizing work can thus be viewed both spatially and temporally, and the employee can be employed on a fixed-term contract with the staffing agency and can get to work at several different workplaces. Employees at temporary staffing

agencies have an employment relationship that may be described as triangular in its configuration. This triangularity entails that the employees of the staffing agency have an employment relationship with the staffing agency of which they are employees, plus a working relationship with the client company that hired their labour, while the staffing agency and the client company in turn have a business relationship. What this means for the temporary workers is that aspects such as terms of employment and compensation are regulated by the staffing agency, even as their daily work is supervised and assigned by the client company to which they have been hired out.

Håkansson and Isidorsson (2018) studied temporary workers who have worked for extended periods at the client organization and compare them with the client organization's own employees. The results show that the temporary workers perceive a higher degree of job insecurity than do the client organization's own employees. One explanation that Håkansson and Isidorsson offer is that the temporary workers do not have access to competence development. The client organization does not engage in competence development beyond what is required for the temporary workers to be able to perform their job duties, even as the staffing agency does not provide competence development to the employees whom they have hired out, so as not to threaten the business relationship with the client organization. Augustsson (2014) advanced a similar rationale that asserts that when job duties that require greater competence need to be performed, the client organization will choose its own employees and not the temporary ones. These results are not tied explicitly to health, but when the conditions surrounding competence development based on this way of organizing work are perceived as inadequate, the issue of negative effects on wellbeing may be raised. Kalleberg, Nesheim and Olsen (2015) also discuss temporary employment from the standpoint of job security, health and wellbeing, this being in the form of "job quality". The authors argue that employment contracts whose designs are per-

manent in nature can contribute to reducing the feelings of uncertainty that temporary workers often experience due to the triangularity of their employment relationship. According to the authors, the conformation of the employment contract can help to mitigate the financial worry that is intimately bound up with perceived “job quality” and personal wellbeing.

In a Swedish questionnaire study involving just under 500 temporary workers, Håkansson and Isidorsson (2016) study risk factors related to temporary workers. The results point to a number of significant risk factors that can affect the work-related wellbeing of such employees. For example, the authors identify class affiliation within the staffing context as a risk factor, as temporary workers are at twice the risk of having problems with work-related wellbeing compared to white-collar workers hired on a temporary basis. The study results also show that temporary workers who perceive their jobs as being physically demanding to a greater extent than do the client company’s own employees run a three-times higher risk of sustaining work-related injuries. According to the authors, there are also indications that client companies use temporary workers to reduce the physical stress on their own employees, with the temporary workers being assigned more physically demanding tasks to a greater extent. Third, opportunities for competence development and learning play a role, functioning as a buffer against work-related illness, but Håkansson and Isidorsson’s results also show that temporary workers do not enjoy opportunities for competence development and learning to the same extent as the client company’s own employees. According to the authors, temporary workers are not given access to the same instruction regarding safety and health-promoting work as the client company’s own employees, thereby contributing to the temporary workers being at greater risk of developing work-related illnesses. The study results show that temporary workers experience job insecurity to a greater extent than other employees in the Swedish labour market. Håkansson and Isidorsson found a

bivariate correlation between perceived job insecurity and the likelihood of developing a “work-related disorder”, although this correlation vanished with the inclusion of other variables in the model, which indicates that temporary workers in a Swedish context enjoy better conditions than do those in other countries, as Swedish temporary workers continue to be paid between assignments. The conclusions drawn by Håkansson and Isidorsson (2016) are that the triangular employment relationship between temporary worker, temporary staffing agency and client company means that the temporary workers have a “dual relation”, wherein the work is supervised and assigned by the client company even as the staffing agency has the responsibility as the employer, and this impacts the risk of being affected by a “work-related disorder”.

There is also research that points to risks associated with temporary agency employment from the standpoint of workplace accidents. In a Finnish context, Hintikka (2011) studied workplace accidents in which temporary workers were involved and analysed them using national statistics from other industries in Finland. Hintikka’s results indicate that the temporary workers’ risk of work-related accidents is increasing, and is at the same time higher than in other industries included in the study. According to Hintikka, this could be due to the fact that the prevalence of temporary workers is increasing in Finland in traditionally accident-prone occupational sectors. However, it is also emphasized that workplace accidents in which temporary workers are involved are rarely of a more serious nature. Hintikka’s results also show that certain job duties, primarily manual labour in the production and construction industries, are more prevalent among temporary workers, which contributes to their accident risk being elevated. Pille Strauss-Raats (2019) also discusses temporary employment from a risk and safety standpoint. In a comparative case study involving cases from Sweden and Poland, this author studied how regulatory frameworks and policies impact temporary workers’ work-related health and safety at the

workplace level. Strauss-Raat's study indicates the rules and restrictions affecting temporary workers affect which job duties temporary workers perform, thus affecting the allocation of risk between the temporary workers and their directly employed colleagues. In the Polish context, the allocation of risk appears to disfavour the temporary workers, as they have to devote themselves to a greater degree to job duties that can lead to work-related illness and injury. In the Swedish context the differences between the directly employed and temporary workers are, according to Strauss-Raat, smaller, even though there are still indications that the temporary workers are at greater risk of work-related illness and injury.

Another problem that can arise for organizations that use temporary workers, as well as fixed-term workers, is that there is a risk that their social relationships will suffer, and trust will be difficult to cultivate (Viitala & Kantola, 2016; Svensson, 2012).

Both the temporal and spatial aspects are prominent here. Viitala and Kantola (2016) show via semi-structured interviews with temporary workers and permanent employees that temporary workers view themselves as visitors, and not as part of the work team, and that tensions arise among the employees as a result. According to Viitala and Kantola, another consequence is that the temporary workers do not receive access to information flows, and thus fail to learn the organization's norms and values. The authors also note that the hiring of temporary workers has negative consequences for the organization, in that the permanent employees become less engaged. In one quantitative study, Svensson (2012) writes that temporary workers generally have a lower degree of trust in other people, and that this can have consequences for the ability of organizations to innovate.

Kalleberg et al. (2015) argue that social support from the client company and the temporary staffing agency are important preconditions if the temporary workers are to perceive a high degree of "job quality".

The temporal organization of work over the day, the week and even the year can also

be seen as a way in which work is specifically organized temporally. How work is organized temporally in this way can also be related to health and wellbeing. In other words, the temporal organization of work can relate to how the working hours are distributed. Piasna (2018) turns to the European Working Conditions Survey and shows how the intensity of a job is related to when it is done. Working long hours, nights and weekends and with working hours that are subject to change by the employer correlates with higher perceived intensity on the job. Other studies also show that the way work is organized over the workday and working week can impact the individual. Bamberg, Dettmers, Funck, Krähe and Vahle-Hinz (2012) studied flexible working hours and "on-call" work, and show that the respondents in the study reported increased irritation, bad moods and decreases in social activities, housework and "low-effort activities". The authors argue that with flexible work schedules such as "on-call" work, just knowing that one might be called in has negative effects, regardless of whether or not the individual is actually called in to work.

Additional studies that focus on the temporal organization of work include Heponiemi, Puttonen and Elovainio (2014) and Heponiemi, Aalto, Pekkarinen, Siuvatti and Elovainio (2015), which focus on the effects of on-call work. In their studies of doctors in Finland, they identify problems that can arise in connection with on-call work, i.e. work that occurs outside of regular daytime working hours. Being on call and the associated often long workdays that include working in the evening can lead to insomnia, a lower perceived quality of life and greater dissatisfaction with their work among doctors who work on call compared to those who do not.

Heponiemi et al. (2015) further argue that jobs that include on-call work lead to higher levels of work-related stress due to, for example, more administrative tasks, as the doctors have to do more of it themselves during their on-call hours compared to daytime hours. Perceptions of a reduced level of influence are noted as well. This is consis-

tent with Leineweber et al. (2013) who, in a quantitative study representative of Sweden nationwide, show that if employees have control over their working hours it has a positive effect on health. Their results also indicate that unlimited work can result in the job taking over one's life, and lead to the employee experiencing an imbalance between work and recovery, which can increase the risk of stress and poor health.

Ede and Rantakeisu (2015) studied flexible working hours in the Swedish elderly care sector. The authors report that there is a policy goal to the effect that everyone must be entitled to full-time work. The proportion of full-time employees in the elderly care sector has been lower than within other occupations and organizations. They describe so-called activity-flexible working hours, i.e. spending both some preset hours with the care recipients and colleagues with whom they customarily work, and a requirement to be on call in case the organization has need of them, e.g. if someone is sick and there is thus a shortage of staff. This temporal organization of work is perceived negatively by the employees. This is so both because it is difficult to be on call because personal activities may have to take a back seat, and even if such is not the case, it becomes more difficult to recover when there is always a chance of being called in to work a shift in one's free time. Moreover, shifts that are worked outside of ordinary shift hours are described as more onerous because the work sometimes has to be done with care recipients other than the usual ones, recipients with whom one has not established a relationship, and with colleagues one does not know well. In one qualitative study, Guldvik, Christensen and Larsson (2014) examine the job situations of personal assistants. The authors discuss the temporal organization of the work of the personal assistants in terms of an asymmetric power relationship, which means that it is the users who have control over the disposition of working hours. As a result, the personal assistants often perceive their situations as unpredictable and uncertain in terms of when the work is to be done.

In a qualitative study among doctors in Norway, Svedahl et al. (2019) show that the doctors perceive a heavier workload, which the authors tie to seasonal factors, such as a consequence of influenza. According to the authors, one consequence of this perceived increased workload can be that the healthcare staff's own wellbeing is negatively affected, even as it becomes more difficult to recruit staff – bad conditions are unattractive.

The organization of work in relation to time may also be viewed in the light of the ways in which work can be organized to enable individuals to work more years without negative health consequences arising. Berglund, Seldén and Halleröd (2017) discuss, based on a quantitative study in Swedish context, mechanisms that can induce the older segment (52–59) of the workforce to continue working for more years rather than retiring. The study results indicate that older employees see themselves as being forced to retire due to job-related demands. At the same time, the authors assert that there are job-related resources that can serve as buffers against job-related demands while at the same time motivating the older employee to keep working into their later years. For example, employees who feel a sense of physical wellbeing and experience job satisfaction are better equipped to handle job-related demands of, for example, a physical nature. Support and motivation can also serve as a buffer. Given these results, an organization of work that is intended ensure that physical activity occurs during the workday and routines that provide older people with support and motivation could contribute to better health and wellbeing, thereby enabling individuals to keep working longer.

All in all, it is evident that earlier research has shown that the temporal organization of work as it relates to health and wellbeing is complex. The way in which the work is organized and scheduled over the day is important. However, there are also publications which show that the individual's attitude toward such a temporal organization of work also influences whether the disposition of

their working hours is perceived negatively or positively from the standpoint of health and wellbeing.

## The spatial organization of work

The spatial organization of work relates to where the work is carried out. It also has to do with how it is carried out, i.e. concrete models for work processes and working methods. We will first present results related to the spatial organization of the workplace, followed by results tied to individuals doing their work at different workplaces, as well as the organization of the work in the form of concrete organizational models on which the work is based.

Regarding the concrete organization of the workplace with workstations, there are examples of research showing that perceptions of the conditions surrounding social support, learning and competence development are, for example, affected by how the work is organized. Parding and Berg-Jansson (2018) and Jansson and Parding (2011) show how the layout of the workplace, i.e. where the workstations are positioned at work, can be related to whether and in what ways the employees perceive the conditions surrounding social support, learning and competence development. In purely concrete terms, a picture emerges of how upper secondary school teachers and nurses perceive their conditions as restrictive when they do not sit near other teachers in their subject or other nurses, respectively. Although there is no direct link to health, wellbeing, productivity or efficiency, the spatial organization of work stands out as key to understanding these employees' opportunities for support as well as professional development. Berthelsen, Muhonen and Toivanen (2017) show that the spatial organization of work in academia has a negative effect when employees transition from having their own offices to their workplace being organized on an activity basis. The employees perceive the activity-based workplaces at the university negatively, in part because a sense of social community among colleagues is perceived to have decreased, and support from immediate

supervisors is perceived to have decreased as well. According to the authors, these employees also see themselves as being less involved in the workplace, and report that they tend to be less likely to recommend that others seek employment at their place of work, even as more employees are thinking about seeking new jobs as compared to the time prior to the introduction of activity-based workplaces.

In a quantitative study, Fløvik, Knardahl and Christensen (2019) shed light on the ways in which different types of separate and recurrent organizational changes in the workplace can affect employees' physical wellbeing in the long term. The study results indicate that organizational changes can impact organizations as a whole, individual departments, work teams and individual employees in different ways. Their results further show that long-term detrimental effects on employees' mental wellbeing can arise up to two years after the organizational changes were implemented. Organizational changes that can have detrimental effects on employees include reorganizations, cutbacks and terminations, while the authors argue that there is little knowledge about the underlying mechanisms that contribute to employees reacting differently to organizational changes. One conclusion is that exposure to organizational changes at the individual level may contribute to an increased risk of clinical mental illness, and that this increased risk applies to both individual and multiple, recurrent organizational changes. Examples of organizational changes are described below.

In a Finnish study focused on the outsourcing of primary care, Koponen et al. (2010) discuss whether the organization of work and, in particular, the form of outsourcing used can have both negative and positive effects on the psychosocial work environment, and on employee wellbeing. The outcome depends on whether or not the new service providers focus on the employees' health and psychological work environment. At the same time, Böckerman and Maliranta (2013) discuss the relationship between outsourcing in the form of off-shoring and various aspects associated

with wellbeing in a Finnish quantitative study. The study results show that the off-shoring of work to, primarily, low-wage countries is perceived as destructive and contributes to the severing of employee relationships, which results in job satisfaction – an indicator of wellbeing – decreasing among the remaining employees. The authors also address examples of cases where off-shoring may have a positive effect on employee wellbeing. When operations are relocated to high-wage countries, the vertical mobility within the organization increases. Greater vertical mobility can help to increase perceived employee wellbeing, as they see greater opportunities for attractive career advancement. Böckerman and Maliranta's (2013) study indicates that the organization of work in the sense of where it takes place can also affect employee health and wellbeing. This has also been discussed by Snorradóttir, Tómasson, Vilhjálmsón and Rafnsdóttir (2015). These authors discuss the ways in which employees perceive their work in the context of comprehensive restructuring and downsizing. More concretely, they study health and wellbeing among bank officers who remain in the workplace and those who lost their jobs as a result of the financial recession that contributed to the collapse of Iceland's banking system in 2008. The study results show that the bank officers who succeeded in avoiding the cutbacks and continued to work at the banks constituted the group that reported the lowest level of health and wellbeing among both men and women. Moreover, the analysis indicates that the bank officers who were rehired by the banks after having had their employment terminated exhibited a significantly higher level of health and wellbeing than did those who avoided losing their jobs. Within this group there are, however, gender-related differences. According to the authors, women who were rehired under stable employment terms at the banks reported the highest levels of self-perceived health and wellbeing, while women who were rehired on a temporary basis reported the lowest levels of self-perceived health and wellbeing. The authors characterize the results as

surprising, as the loss of a job and unemployment are usually viewed as being among the most stressful situations that people can experience within the framework of their professional lives. The authors draw the conclusion that job insecurity was an important factor in relation to the low level of self-perceived health and wellbeing among those employees who remained at their banks following the staff cutbacks. One important point that the authors stress is that, in connection with organizational changes and, more specifically, staff cutbacks, consideration should also be given to those employees who remain in the enterprise by focusing on measures intended to bolster and support their levels of health and wellbeing.

Alfonsson (2015) discusses how as-needed employees relate to permanent employees. This publication may certainly be said to bear upon the temporal organization of work, based on the form of employment. However, it bears upon the organization from a spatial perspective as well. The author's results indicate that as-needed employees perceive a lack of closeness with permanent employees. The as-needed employees are at risk of falling outside the sense of community in the workplace and, in the long run, at risk of being treated in an abusive manner. A large share of the as-needed employees' work environment problems are due to the fact that the flexible forms of employment that exist in the modern labour market create situations in which as-needed employees become distanced from those who have permanent positions, because of non-existent or insufficient interaction with the permanent employees in the workplace. This distancing results in the as-needed employees being met with prejudice and a higher degree of control by their permanently employed colleagues, which has a negative effect on their degree of autonomy. According to Alfonsson, the situation appears to be negative from a health perspective, as earlier research shows that social support is a protective factor against job-related illness. Alfonsson's study offers examples of the problems that can arise in relation to how



work is organized spatially when two different groups of employees (permanent and as-needed employees) have to work together in the same enterprise.

In a longitudinal case study, Håkansson, Holden, Eriksson and Dellve (2017b) consider the ways in which management practices can support socially sustainable working conditions when an enterprise introduces lean production as a basis for how its work is managed and organized. The study results show that, within the studied company, socially sustainable working conditions appear to be related to favourable working methods and a management practice that succeeds in integrating top-down and bottom-up perspectives in the process. These integrated perspectives contribute to cultivating engagement among the employees with respect to organizational change and the introduction of lean production. Improvement systems were developed and implemented within the studied company that enabled conscious engagement and means of influencing the change process from the employee side. The transformation was also described as creating clear roles and goals for the employees. The authors argue that organizing work in a way that clarifies roles and goals can be viewed as a factor that promotes health in the form of, for example, job satisfaction. Håkansson, Dellve, Waldenström and Holden (2017a) also argue that the transition to lean management entails a lower degree of task control, as the work processes are standardized and simplified. According to the authors, the employees are also given means of influencing their job duties, which contributes to a broadening and deepening of their competence. The authors argue that the studied enterprise offers an example of how the introduction of lean management can contribute to sustainable and healthy psychosocial working conditions if the transition to lean management occurs in a way that maintains healthy psychosocial work-related resources such as opportunity for personal growth for the employees.

Von Thiele Schwarz, Nielsen, Stenfor-Hayes and Hasson's (2017) study fo-

cusing on Kaizen billboards offers a similar example of a concrete model for organizing work. In a study based on two interventions, one within the Danish postal service and the other at a Swedish regional hospital, the authors examine how the use of lean management tools, i.e. Kaizen billboards, impacts employee wellbeing. In the first case (the Danish postal service), Kaizen billboards are used to implement action plans, while in the second case (the Swedish hospital), work-related health problems are integrated within the framework of existing Kaizen billboards. One conclusion drawn by the authors is that, when interventions occur within contexts in which employees use Kaizen and the Kaizen billboards are used expressly to deal with psychosocial work environment issues, the intervention can lead to positive results such as improved employee wellbeing. Even though the authors are discussing the psychosocial work environment, this study is relevant here, as Kaizen can be viewed as a model for organizing work.

Another way of organizing work is the call-centre model. In their comparative quantitative study involving 967 respondents, Mustosmäki, Anttila and Oinas (2013) examine how work engagement varies between call centres and other service enterprises by measuring the prevalence of demands, autonomy and social support. The study results show that call-centre employees reported being subject to heavier demands and having a lower degree of autonomy and social support than in other service occupations. According to the authors, these results substantiate earlier research showing that call centres are characterized by Taylorism and, in turn, less complex job duties, as well as a low level of control over the work tempo and working methods for the employees. The authors argue that it is possible that greater work engagement within the call-centre industry could be achieved by reducing the work-related demands (particularly the time-related demands) while at the same time increasing employee influence on job duties by cutting back on managerial controls and reducing the standardization of those duties. The authors argue that “team

building” and other activities predicated on having fun together and which, traditionally speaking, strengthen the social support in the workplace, could be put to better use in different ways.

One study that clearly does not focus on health or wellbeing explicitly, but rather implicitly, is that by Hedlund, Andersson and Rosén (2010), which examines what employees consider to constitute an attractive job based on problems that organizations experience in recruiting a competent workforce. Data were collected using the “Questions about an attractive job” survey tool, which includes three main categories, i.e. job content, working conditions and job satisfaction. All in all, job attractiveness is assessed individually based on the promotion of a holistic perspective. The study results show that employees consider their job to be a relatively important aspect of their life. Half of the employees who answered the questions reported that they work first and foremost for sustenance and survival, while one-third reported that they work for self-fulfilment and quality of life. The majority of the employees included in the study considered their current job to be attractive, with mainly social contacts and relationships appearing as the most common explanation in the employee responses. With regard to job satisfaction, the employees reported that it is important that the work they do be noticed, as this contributes to a sense of feeling needed; being seen. The authors note that the responses in the study have to do largely with insufficient time for reflection or recovery which, according to them, indicates that the increased presence of stress in working life and organizational conditions are affecting their health and wellbeing.

On a more general level, Byrne (2018) discusses in a qualitative study why Denmark often stands out as a country where employees report high job satisfaction in many work-related dimensions, such as “job quality”, balance between work and free time, influence, opportunities for learning and job satisfaction. Byrne argues that Danish working life is conformed based on collec-

tive agreements, which may be viewed as institutional intermediaries that contribute to creating ties between society, the employees and psychosocial wellbeing. According to the authors, the collective agreements in Denmark maintain and reproduce compatible socio-economic contexts that shape the ways in which working life impacts employees. The collective agreements engender an organic solidarity that integrates employees into separate but interdependent groups that provide a form of decentralized and legitimate regulation, and connect macro-economic goals with everyday work contexts. The conformation of the Danish work-related institutional context potentially contributes to creating protective factors against negative effects, such as fragmentation of the boundary between working life and free time. Byrne’s study can be seen as an example of how the labour market, rather than workplaces, can be organized to achieve health and wellbeing.

In summary it is clear that spatial aspects of the organization of work are relevant to employee health and wellbeing.

### Summarizing comments

All in all, the organization of work, both spatially and temporally, clearly seems to have an impact on health and wellbeing. On the other hand, the picture is complex; it is not always the case that, for example, an uncertain job is perceived negatively, but rather a great deal depends on the individual’s attitude towards how their work is organized temporally, as well as spatially. In other words, different types of flexibility can tend to promote health if they are based on the employee’s perspectives and perceptions, for example through their having influence over their own working hours. There are at the same time indications that key concepts such as class, gender and ethnicity have an impact on health and wellbeing. If our first main theme has to do with the organization of work in the public sector and the focus there is on qualitative studies, this theme stands out in many quantitative studies.

## Employee wellbeing and working organizations' efficiency and productivity

What came to light in the work on this summary is that a focus on any causal relationship between the organization of work and employee health and wellbeing on the one hand and the increased efficiency and productivity of the working organization on the other is nearly non-existent in the included publications. The same is true with regard to a focus on any correlations between them. Either efficiency and productivity are not addressed at all, which is true of the lion's share of all the included publications, or any relationships between employee health and wellbeing and the increased efficiency and productivity of the working organization are left unelaborated. Some publications take as their starting point that job satisfaction and/or perceived security on the part of employees has, or can have, a positive effect on the working organization's productivity (Hansen & Høst, 2012) or performance (Lindfors & Hansen, 2018; Strandlund et al., 2018), or confer competitive advantages (Alverén et al., 2012). However, these terms are not defined, which makes it difficult to draw overly far-reaching conclusions based on these studies.

Two exceptions to the foregoing are Ramstad (2014) and Öhrling (2014). Ramstad proceeds based on the presence of scientific consensus as to what types of workplaces are conducive to both productivity and quality of working life. She finds in her questionnaire study, in which she examines Finnish workplaces in both the public and private sectors, that many of the respondents find that decentralized decision-making leads to increases in both productivity and work quality. As in other publications, productivity is, however, not defined. On the other hand, it is measured based on the respondents' perception of productivity, e.g. how productive they perceive their work to be, how high-quality they perceive the products and services to be, and how flexible they perceive the customer service to be, while financial productivity is not measured

at all. The results also point to a major difference between managers and employees, with the latter simultaneously perceiving increased quality of work life and productivity to a considerably lesser extent than the former (Ramstad, 2014).

Öhrling (2014) shows how changes in a municipal cleaning company in which the cleaners are involved in decisions regarding operations and finances entailed both increased efficiency and greater job satisfaction. The health of the employees was improved as well, something that is evident in both considerably lower absenteeism due to illness and the employees' self-perceived health. These improvements also appear to have conferred financial benefits in the form of reduced costs due to absenteeism and better resource utilization due to the employees' new responsibility for purchasing.

## Summarizing comments and conclusion

This literature review includes 80 publications, with most focused on Swedish workplaces and the Swedish labour market and working life contexts, although those of other Nordic countries are also represented. Overall it is evident that there is a substantial body of research on the organization of work and how it affects employee health and wellbeing, even though this summary obviously cannot be said to encompass all the publications in the field. It is at the same time clear, to judge from the included publications, that much of the research has had to do with factors that cause health and wellbeing not to be promoted. In other words, based on the analysis of the included publications, it is clear that there is a lack of research that has a direct focus on the organization of work (including organizational models) as it relates to health and wellbeing and where the focus is on factors that promote health. There is even less research concerning the organization of work (including organizational models) as it relates to productivity and efficiency and where the

focus is on factors that promote health. It is also striking that neither health, wellbeing, productivity nor efficiency is unambiguously defined. Instead, the vast majority of publications lacks definitions that precisely and explicitly define what is meant by these terms. As a result, it is also difficult to draw overly far-reaching conclusions, as it is reasonable to assume that different definitions have been used.

The two main themes that emerged during the analysis, i.e. the organization of work in the public sector and the organization of work in time and space, partially overlap. Furthermore, it is clear that much of the available research focuses on the public sector, albeit in different ways; everything from the ways in which management ideals impact the concrete organization of work and how this is perceived by the employees, to how hiring in the public sector affects the organization of work and how that is perceived by the employees.

One conclusion with regard to the first main theme, i.e. conflicting logics in the public sector, is that public sector organizations may need to consider whether their organizational logic is truly more efficient and more productive than (re)affording the professional logic greater legitimacy and, in turn, interpretive priority. In order to create health and wellbeing, the employees (in many cases public sector professionals with a university education in their area of specialization) may be presumed to need to do their jobs in a manner consistent with their professional logic, or at least in a manner that does not conflict with it.

Giving the professional logic interpretive priority could lead to fewer conflicting demands, greater influence and possibly a more reasonable workload, increased social support and better conditions in terms of learning and competence development, which are in and of themselves important for health and wellbeing. It may also be assumed that the quality of the services the public sector professionals provide, i.e. issues pertaining to efficiency and productivity, would be enhanced by the fact that those who can and do

carry out the work are given a powerful voice in terms of how their work is planned for, executed and followed up, as is supported by Öhrling's (2014) findings.

One conclusion with regard to the second main theme, i.e. the organization of work in time and space, forms of employment and flexibility, is that the temporal and spatial aspects of how work is organized are key in terms of health and wellbeing. On the other hand, the picture painted here is a complex one. Whether a given type of job is perceived in terms of both time and space as good or bad depends largely on the individual's own desires and situation, as well as their social position. In those cases where individuals work based on temporal and spatial circumstances that do not seem to suit them, these conditions are perceived negatively, e.g. being seasonally employed with a different job location each season as a single parent can lead to a situation being perceived as extremely difficult. The same circumstances can also be perceived positively by another individual, such as a young person who is studying and at the same time chooses to take on seasonal work when they can fit it in. That individual may instead view the situation as one of freedom, and as a challenge that suits them based on where they are in their life. It is important to point out that most individuals are not free of responsibilities and family obligations, which means this situation is less common. Although this makes it difficult to describe any concrete optimum way of organizing work, it is clear that it is important for employees to have influence over the organization of their work in time and space to the greatest possible extent.

As noted above, an explicit focus on specific organizational models that contribute to greater health and wellbeing is seldom evident in the studied publications. Nor is there any clear focus on the organization of work as it relates to health, wellbeing, productivity or efficiency. This tends to make it problematic to offer an opinion on overarching organizational ideal models that contribute to positive health effects.

Here we will present identified knowledge gaps based on the results of the analysed publications, including suggestions for further research.

## Knowledge gaps

A number of knowledge gaps have been identified in the course of carrying out this literature review. Below we will present a summary of these gaps, with an emphasis on issues of particular importance for further study. At issue are contexts and study objects, theoretical starting points and perspectives, and methodological issues. These aspects partly overlap, but we will address them individually here. The knowledge gaps we describe below also have relevance to the UN's global goals for 2030, and in particular Goal 3: Health and Wellbeing and Goal 8: Sustainable economic growth and decent working conditions (The United Nations, n.d.). It is relevant to consider issues regarding the ways in which the health and wellbeing of various groups in the workplace, in the labour market and in working life are being addressed in other ways.

### Contexts and study objects

- Based on the quantitative overview of the analysed publications, it is clear that there is a substantial number of studies that focus on the contexts of care, nursing and social services, as well as the hiring context as it relates to health and wellbeing. This may reflect that conditions in these contexts are problematic, with the result that there is a need to continue to focus on them. At the same time, it is important in further studies to focus on workplace contexts and occupational groups that are less prevalent, and which are categorized in Diagram 5. Because the majority of the studies, regardless of context, concern factors that constitute problems, it is also relevant to try to identify workplace contexts, occupations, sectors and industries that are functioning well, so as to amass more knowledge about when things

are actually working well and how such conditions can be created.

- A large share of the publications focus on employees who hold various types of atypical or non-standard positions, which are consolidated under the term fixed-term contract positions. However, most employees in Sweden and the Nordic region still work within the framework of standardized permanent positions, and in contexts that involve factors that are described as promoting health and are consequently important for employee wellbeing. This makes it important to continue to research the standardized forms of employment so as to further deepen our knowledge of health-promoting aspects in these contexts. It is also relevant to determine whether and how these factors can be transferred or adapted to the more atypical forms of employment. It may also be significant to consider how atypical forms of employment can be reduced in cases where health and wellbeing is not attained.
- The analysed publications evince relatively little focus on tying the organization of work to employee health and wellbeing while at the same time focusing on productivity and efficiency. In light of this, articles were included in which health and wellbeing are addressed while efficiency and productivity were not. Here we can identify a need for more knowledge about how different ways of organizing work can make it health-promoting while at the same time being more efficient and productive.
- Moreover, issues as to whether these apparently different aspects are simultaneously feasible and possible to achieve need to be researched more thoroughly. It is reasonable here to assume that interdisciplinary approaches are of particular importance, such as approaches in which health economics and human work science are combined.

- One aspect of health and wellbeing as they relate to organization and organizational forms that is not encountered in the analysed publications has to do with the introduction of new technology. How are digitalization and artificial intelligence affecting health and wellbeing? Is it possible for work be organized so that digitalization serves as a support at work? How? Can AI unburden professionals so that the technology promotes employee health and wellbeing? How? These are just a few examples of relevant issues to be addressed.
- A lack of pronounced perspectives that focus on, e.g. gender, class, ethnicity and/or age, on a structural level, is evident in the analysed publications. Only a few of the publications touch on these key factors. To create and maintain sustainable and equitable working conditions in which all employees and groups of employees have opportunities for health and wellbeing in their working lives, it is important to study how these factors impact health and wellbeing more explicitly. For example, it is relevant to study whether and how different organizations are structured based on similarities and differences both within and between different organizations in relation to which groups of individuals work in them, e.g. whether and how different ways of organizing work can be clarified holistically in one and the same organization. What potential differences exist in relation to, e.g. male- and female-dominated workplace contexts within the same organization? How can work be organized to be inclusive, so that all employees enjoy equivalent conditions at work? These are just a few examples of questions that could be relevant. Studies with an explicit focus on, in particular, gender, class, ethnicity and age, both separately but also using intersectional approaches, are important to focus on moving forward.

## Theoretical starting points and perspectives

- Based on the overview of the analysed publications, it is clear that two theoretical starting points seem to occur commonly, i.e. the demand–control–support model and the effort–reward model. It is important to focus on other theoretical perspectives and starting points, and optionally on combinations moving forward. We also see here how important it is to include general perspectives on key categories, as is discussed below.
- Because few of the analysed publications exhibit any pronounced gender, ethnicity, class or age perspective, even though it is generally accepted that these factors do play a role in people’s real opportunities and obstacles in their working lives, it is particularly important to focus on such aspects moving forward. For example, studying how immigrants, which constitute a heterogeneous and thus complex group, can both establish themselves in working life and achieve health and wellbeing is a key issue for the individuals, the employing organizations and society. This is particularly true in view of the labour shortage seen in many regions, sectors and occupations. Another concrete example is to study how work can be organized in order to examine whether and how the elderly, another heterogeneous group, can maintain health and wellbeing in their working lives. This issue is also important for the individuals, the employing organizations and society.
- It has long been established that learning and competence development are important factors in health and wellbeing (see for example Karasek & Theorell, 1990). So-called lifelong learning is on the agenda to safeguard the competence supply and enable individuals to meet changing demands in the labour market. It can also be argued that learning and competence development strengthen competitive ability and

productivity. Learning and competence development that are integrated into daily work, i.e. workplace learning, have been asserted as being especially successful (see for example [www.arbetsplatslarandet.se](http://www.arbetsplatslarandet.se)). Judging from the publications analysed, issues pertaining to continuous learning in working life, not least in the form of workplace learning, have not stood out as key issues. This could be due in part to the fact that the search for publications was not focused on the organization of work in relation to conditions surrounding learning, but it could also be due to a knowledge gap in this area. Studies that focus on the conditions surrounding continuous learning and competence development on the job thus constitute a knowledge gap that it is important to address as we move forward.

workplaces have different context-dependent circumstances, needs, opportunities and obstacles, and are consequently affected in different ways by, for example, organizational change processes.

The foregoing knowledge gaps and suggestions for further research are to be viewed as examples. There are of course more contexts and more study objects, theoretical starting points, perspectives and methodological areas and issues that may be relevant to focus on moving forward.

## Methodological issues

- A large number of the publications apply quantitative methods (see Diagram 4) to data from major national databases, with the result that the research becomes somewhat generalized and overarching. Such knowledge is important. However, based on that we can at the same time see a number of knowledge gaps that need to be researched in greater detail. It is important to address putting the focus on specific countries, as well as specific regional and local conditions and assumptions surrounding health and wellbeing. It can be argued that the place where work is sited plays a role in what the conditions surrounding the work are, and that work can also affect the place where it is carried out.
- There is also a need to conduct more qualitative case studies and comparative studies so as to foster a deeper understanding of and insight into which factors are perceived as promoting health by employees in different contexts. This is based on the fact that different occupations and





## 4. Conclusions

When it comes to conclusions, they can be drawn in relation to different actors in the labour market, in working life and in the workplace. Based on the analysed publications, which have to do in large measure with factors that hinder rather than help, on relevant sick-listing statistics, and on recurrent reports of poor work environments in broadly disparate work environment contexts, one main conclusion is that research regarding factors and processes that promote health is of the greatest importance. It is costly at the individual, organizational and societal level for work to be organized in such a way that people feel poorly and become ill.

Part of this task has to do with presenting general advice to employers, which we will do below. However, it should be noted that each workplace has its particular characteristics and challenges, with the result that suitable measures need to be identified within each workplace or organization. Nevertheless, some general advice is presented here.

### General advice

Here we present some concrete advice for various actors with various roles in working life on matters pertaining to the organization of work, health, welfare, productivity and efficiency. However, the focus is on the employers. This advice is based on our analysis of the included publications.

### Advice for employers

- Employers should organize work in a way that enhances the opportunities available to the employees to have influence and codetermination with respect to their work situation (e.g. scheduling, execution and processes). This involves reducing mi-

cro-management in order to create greater opportunities for the employees to exert control over their work.

- Employers in the public sector need to consider which governing logic(s) (professional, bureaucratic, market) are to be given interpretive priority so as to then identify which logic(s) permeate the organization of the work, which logic(s) go together, and which create conflicting demands. Conscious choices then need to be made in terms of which logic(s) are to serve as the basis for organizing the work. This advice is rooted in the problem of a seeming overemphasis on bureaucratic and market logics rather than professional logic, which is perceived as permeating the work of public sector professionals, according to their own accounts.
- Employers should strive to ensure that all employees find that they have a meaningful job and the competence to do a thorough job that is perceived as meaningful, supported by continuous information, feedback and competence development.
- Employers should consequently create opportunities for career advancement and other developmental opportunities (everything from learning integrated into the daily work to formal training, courses and other competence-building activities), and thus opportunities for new responsibilities and mandates as well. This is important because favourable conditions for learning on the job can serve as a buffer against work environment-related problems. Furthermore, continuous learning and competence development can help the employees and the organization in connection with changes in the labour market in such a

way that individuals are not stuck with yesterday's skills, but rather have the competence that is in demand. This should also benefit employers, not least in view of the competence supply problems that are discernible even today. Given that, in this summary, we have presented a picture in which different groups of individuals find themselves in more or less vulnerable positions, it is important for the employer to strive towards working methods and processes that are inclusive with respect to, e.g. gender, ethnicity and age. For example, this has to do with working practically to achieve both vertical and horizontal equality, where different categories of employees hold positions on different levels.

- Employers need to realize the importance of trust in job satisfaction; both among the employees and between employees and managers it must be high. To foster trust, a certain continuity must be present in the social relationships, in which social support can arise and be nurtured.
- In light of the flexibilization of working life in general, employers need to approach and organize work based on the importance of a balance between demands and resources, and between work and free time. This has to do not least with integrating a long-term perspective on the workload, as well as opportunity to disengage from the work entirely.
- Both employers and relevant key actors need to watch to ensure that those cases in which the organization is organized with the help of temporary workers need to have concrete strategies for including those employees in competence development processes, as part of ensuring that these individuals are also provided with conditions favourable to continuous learning and competence development.

- 

- Employers also need to ensure that social relationships are functional, as they create conditions favourable for social support. In other words, the relationship between the core and the periphery needs to be minimized.
- Both employers and relevant key actors need to come to terms with the issue of the presence of fixed-term contract positions, including temporary positions, as these types of forms of employment are generally worse for individual health and wellbeing, and also potentially for organization continuity and productivity overall.

Employers can also help their employees, regardless of their form of employment, to bolster their wellbeing, e.g. by providing opportunities for them to impact their work situation through training, influence, codetermination and competence development.

## 5. References

- AFS 2015:4 Arbetsmiljöverkets föreskrifter om organisatorisk och social arbetsmiljö. Stockholm: Arbetsmiljöverket.
- Aleksynska, M. (2018). Temporary employment, work quality, and job satisfaction. *Journal of Comparative Economics*, 46(3), 722-735.
- Alfonsson, J. (2015). Permanent nykomling - Om behovsanställdas villkor. *Arbetsmarknad & Arbetsliv*, 21(3), 7-22.
- Allodi, M. W., & Fischbein, S. (2012). Teachers' perceptions of their work environment in Swedish junior high schools. *Research in Comparative and International Education*, 7(3), 376-393.
- Alverén, E., Andersson, T. D., Eriksson, K., Sandoff, M., & Wikhamn, W. (2012). Seasonal employees' intention to return and do more than expected. *The Service Industries Journal*, 32(12), 1957-1972.
- Amilon, A., & Walette, M. (2009). Work absence - A signalling factor for temporary workers? *Labour*, 23(1), 171-194.
- Andersen, D. R., Andersen, L. P., Gadegaard, C. A., Høgh, A., Prieur, A., & Lund, T. (2017). Burnout among Danish prison personnel: A question of quantitative and emotional demands. *Scandinavian journal of public health*, 45(8), 824-830.
- Arbetsmiljöverket. (2016). Arbetsmiljöstatistik Rapport 2016:3 - Arbetsorsakade besvär 2016. Stockholm: Arbetsmiljöverket. Hämtad från <https://www.av.se/globalassets/filer/statistik/arbetsorsakade-besvar-2016/arbetsmiljostatistik-arbetsorsakade-besvar-2016-rapport-2016-3.pdf> [2020-01-22].
- Arbetsmiljöverket. (2018a). Arbetsmiljöstatistik Rapport 2018:2 - Arbetsmiljön 2017. Stockholm: Arbetsmiljöverket. Hämtad från <https://www.av.se/globalassets/filer/statistik/arbetsmiljon-2017/arbetsmiljostatistik-arbetsmiljon-2017-rapport-2018-2.pdf> [2020-01-22].
- Arbetsmiljöverket. (2018b). Arbetsmiljöstatistik Rapport 2018:3 - Arbetsorsakade besvär 2018. Stockholm: Arbetsmiljöverket. Hämtad från [https://www.av.se/globalassets/filer/statistik/arbetsorsakade-besvar-2018/arbetsorsakade-besvar\\_2018\\_rapport.pdf](https://www.av.se/globalassets/filer/statistik/arbetsorsakade-besvar-2018/arbetsorsakade-besvar_2018_rapport.pdf) [2020-01-22].
- Arbetsmiljöverket. (2019). Arbetsmiljöstatistik Rapport 2019:01 - Arbetsskador 2018. Stockholm: Arbetsmiljöverket. Hämtad från <https://www.av.se/globalassets/filer/statistik/arbetsskador-2018/arbetsmiljostatistik-arbetsskador-2018-rapport-2019-1.pdf> [2020-01-22].
- Aronsson, G., Ishäll, L., Göransson, S., Lindfors, P., Nylén, E. C., & Sverke, M. (2015). Arbetsuppdag och återhämtning i välfärdstjänstearbete. *Arbetsmarknad & Arbetsliv*, 21(2), 7-25.
- Astvik, W., Welander, J., & Isaksson, K. (2017). Sorti, tystnad och lojalitet bland medarbetare och chefer i socialtjänsten. *Arbetsmarknad & Arbetsliv*, 23(3), 41-61.
- Augustsson, G. (2014). Temporary and regular workers fulfill their tasks side-by-side, but in different learning conditions. *Journal of Workplace Learning*, 26(2), 79-90.
- Bamberg, E., Dettmers, J., Funck, H., Krähe, B., & Vahle-Hinz, T. (2012). Effects of On-Call Work on Well-Being: Results of a Daily Survey 1. *Applied Psychology: Health and Well-Being*, 4(3), 299-320.
- Bambra, C., Lunau, T., Van der Wel, K. A., Eikemo, T. A., & Dragano, N. (2014). Work, health, and welfare: the association between working conditions, welfare states, and self-reported general health in Europe. *International Journal of Health Services*, 44(1), 113-136.
- Bejerot, E., Kankkunen, T. F., & Hasselblad, H. (2015). Två decennier av new public management: arbetsmiljön i skola och sjukvård. *Arbetsmarknad & Arbetsliv*, 21(3), 23-41.

- Berglund, T., Seldén, D., & Halleröd, B. (2017). Factors affecting prolonged working life for the older workforce: the Swedish case. *Nordic Journal of Working Life Studies*, 7(1).
- Bernhard-Oettel, C., Leineweber, C., & Westerlund, H. (2019). Staying in or switching between permanent, temporary and self-employment during 2008–2010: Associations with changing job characteristics and emotional exhaustion. *Economic and Industrial Democracy*, 40(2), 215-237.
- Bernhard-Oettel, C., Rigotti, T., Clinton, M., & de Jong, J. (2013). Job insecurity and well-being in the temporary workforce: Testing volition and contract expectations as boundary conditions. *European Journal of Work and Organizational Psychology*, 22(2), 203-217.
- Berthelsen, H., Muhonen, T., & Toivanen, S. (2017). Vad händer med arbetsmiljön när man inför aktivitetsbaserade kontor inom akademien? *Arbetsmarknad & Arbetsliv*, 23(3), 9-23.
- Björk, L., Bejerot, E., Jacobshagen, N., & Härenstam, A. (2013). I shouldn't have to do this: Illegitimate tasks as a stressor in relation to organizational control and resource deficits. *Work & Stress*, 27(3), 262-277.
- Bordi, L., Okkonen, J., Mäkinen, J.-P., & Heikkilä-Tammi, K. (2018). Communication in the Digital Work Environment: Implications for Wellbeing at Work. *Nordic Journal of Working Life Studies*, 8(S3).
- Bramer, W. M., Giustini, D., de Jonge, G. B., Holland, L., & Bekhuis, T. (2016). De-duplication of database search results for systematic reviews in EndNote. *Journal of the Medical Library Association : JMLA*, 104(3), 240–243. doi:10.3163/1536-5050.104.3.014
- Byrne, J. P. (2018). Denmark, Durkheim, and Decentralization: The Structures and Capabilities of Danish Working Lives. *Nordic Journal of Working Life Studies*, 8(3).
- Böckerman, P., & Maliranta, M. (2013). Outsourcing, Occupational Restructuring, and Employee Well-Being: Is There a Silver Lining?. *Industrial Relations: A Journal of Economy and Society*, 52(4), 878-914.
- De Cuyper, N., De Witte, H., Kinnunen, U., & Nätti, J. (2010). The relationship between job insecurity and employability and well-being among Finnish temporary and permanent employees. *International Studies of Management & Organization*, 40(1), 57-73.
- de Jong, J. (2014). Externalization motives and temporary versus permanent employee psychological well-being: A multilevel analysis. *European Journal of Work and Organizational Psychology*, 23(6), 803-815.
- De Moortel, D., Vandenheede, H., & Vanroelen, C. (2014). Contemporary employment arrangements and mental well-being in men and women across Europe: a cross-sectional study. *International journal for equity in health*, 13(1), 90.
- De Witte H., Vander Elst T., De Cuyper N. (2015) Job Insecurity, Health and Well-Being. I Vuori J., Blonk R., Price R. (eds) *Sustainable Working Lives. Aligning Perspectives on Health, Safety and Well-Being* (ss. 109-128). Dordrecht: Springer.
- Debesay, J., Harsløf, I., Rechel, B., & Vike, H. (2014). Dispensing emotions: Norwegian community nurses' handling of diversity in a changing organizational context. *Social science & medicine*, 119, 74-80.
- Dekker, F., & van der Veen, R. (2017). Modern working life: A blurring of the boundaries between secondary and primary labour markets?. *Economic and Industrial Democracy*, 38(2), 256-270.
- Ede, L., & Rantakeisu, U. (2015). Gränslöst arbete? Flexibel arbetstid i äldreomsorgen. *Arbetsmarknad & Arbetsliv*, 21(4), 54-68.
- Ek, E., Sirviö, A., Koironen, M., & Taanila, A. (2014). Psychological well-being, job strain and education among young Finnish precarious employees. *Social Indicators Research*, 115(3), 1057-1069.
- Eriksson, T., & Li, J. (2009). Working at the boundary between market and flexicurity: Housekeeping in Danish hotels. *International Labour Review*, 148(4), 357-373.

- Expertgruppen för studier i offentlig ekonomi. (2013). 2013:8 Den offentliga sektorn – en antologi om att mäta produktivitet och prestationer. Hämtat från [eso.expertgrupp.se: https://eso.expertgrupp.se/wp-content/uploads/2013/08/ESO-2013\\_8-till-webben.pdf](https://eso.expertgrupp.se/wp-content/uploads/2013/08/ESO-2013_8-till-webben.pdf)
- Fløvik, L., Knardahl, S., & Christensen, J. O. (2019). Organizational change and employee mental health: A prospective multilevel study of the associations between organizational changes and clinically relevant mental distress. *Scandinavian journal of work, environment & health*, 45(2), 134-145.
- Grant, M. J., Booth, A. (2009) A typology of reviews: an analysis of 14 review types and associated methodologies, *Health information and libraries Journal*, 26, 91-108.
- Guldvik, I., Christensen, K., & Larsson, M. (2014). Towards solidarity: working relations in personal assistance. *Scandinavian Journal of Disability Research*, 16(sup1), 48-61.
- Göransson, S., Lindfors, P., Ishäll, L., Nylén, E. C., Kylin, C., & Sverke, M. (2013). Dialog och kunskap om arbetsmiljö-En intervention som balanserar?. *Arbetsmarknad & Arbetsliv*, 19(4), 113-125.
- Hansen, J. R., & Høst, V. (2012). Understanding the relationships between decentralized organizational decision structure, job context, and job satisfaction—A survey of Danish public managers. *Review of Public Personnel Administration*, 32(3), 288-308.
- Hedlund, A., Andersson, I. M., & Rosén, G. (2010). Är dagens arbeten attraktiva? Värderingar hos 1 440 anställda. *Arbetsmarknad & Arbetsliv*, 16(4), 31-43.
- Heponiemi, T., Aalto, A. M., Pekkarinen, L., Siuvatti, E., & Elovainio, M. (2015). Are there high-risk groups among physicians that are more vulnerable to on-call work?. *The American journal of emergency medicine*, 33(5), 614-619.
- Heponiemi, T., Puttonen, S., & Elovainio, M. (2014). On-call work and physicians' well-being: testing the potential mediators. *Occupational Medicine*, 64(5), 352-357.
- Hintikka, N. (2011). Accidents at work during temporary agency work in Finland—Comparisons between certain major industries and other industries. *Safety science*, 49(3), 473-483.
- Hitt, M. A., Miller, C. C., & Colella, A. (2015). *Organizational behavior*.
- Håkansson, K., & Isidorsson, T. (2016). Between two stools: occupational injuries and risk factors for temporary agency workers. *International Journal of Workplace Health Management*, 9(3), 340-359.
- Håkansson, K., & Isidorsson, T. (2018). Job quality for temporary agency workers and client organization employees at a Swedish manufacturing plant. i T. Isidorsson, & J. Kubisa (Red.), *Job Quality in an Era of Flexibility. Experiences in a European Context* (ss. 177-199). London: Routledge.
- Håkansson, M., Dellve, L., Waldenström, M., & Holden, R. J. (2017b). Sustained lean transformation of working conditions: A Swedish longitudinal case study. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 27(6), 268-279.
- Håkansson, M., Holden, R. J., Eriksson, A., & Dellve, L. (2017a). Managerial practices that support lean and socially sustainable working conditions. *Nordic journal of working life studies*, 7(3).
- Imhof, S., & Andresen, M. (2018). Unhappy with well-being research in the temporary work context: mapping review and research agenda. *The International Journal of Human Resource Management*, 29(1), 127-164.
- Jansson, A., & Parding, K. (2011). Changed governance of public sector organisations= challenged conditions for intra-professional relations?. *International Journal of Public Sector Management*, 24(3), 177-186.
- Juliá, M., Vanroelen, C., Bosmans, K., Van Aerden, K., & Benach, J. (2017). Precarious employment and quality of employment in relation to health and well-being in Europe. *International Journal of Health Services*, 47(3), 389-409.
- Kalleberg, A. L. (2018). Job Insecurity and Well-being in Rich Democracies. *The Economic and Social Review*, 49(3, Autumn), 241-258.
- Kalleberg, A. L., Nesheim, T., & Olsen, K. M. (2015). Job quality in triadic employment relations: Work attitudes of Norwegian temporary help agency employees. *Scandinavian journal of management*, 31(3), 362-374.

- Karasek, R., Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. New York: Basic Books.
- Kauhanen, M., & Nätti, J. (2015). Involuntary temporary and part-time work, job quality and well-being at work. *Social Indicators Research*, 120(3), 783-799.
- Keisu, B. I. (2017). Dignity: a prerequisite for attractive work in elderly care. *Society, Health & Vulnerability*, 8(sup1), 1322455.
- Keisu, B. I., Öhman, A., & Enberg, B. (2016). What is a good workplace?: Tracing the logics of NPM among managers and professionals in Swedish elderly care. *Nordic journal of working life studies*, 6, 27-46.
- Kinnunen, U., Mäkilängas, A., Mauno, S., Siponen, K., & Nätti, J. (2011). Perceived employability: Investigating outcomes among involuntary and voluntary temporary employees compared to permanent employees. *Career Development International*, 16(2), 140-160.
- Kokkinen, L., Virtanen, M., Pentti, J., Vahtera, J., & Kivimäki, M. (2013). Does transfer of work from a public sector organisation to a commercial enterprise without staff reductions increase risk of long-term sickness absence among the staff? A cohort study of laboratory and radiology employees. *Occup Environ Med*, 70(8), 585-587.
- Koponen, A. M., Laamanen, R., Simonsen-Rehn, N., Sundell, J., Brommels, M., & Suominen, S. (2010). Psychosocial work environment and emotional exhaustion - Does a service provision model play a role?. *Health policy*, 94(2), 111-119.
- Kretsos, L., & Livanos, I. (2016). The extent and determinants of precarious employment in Europe. *International journal of manpower*, 37(1), 25-43.
- Leineweber, C., Kecklund, G., Theorell, T., Åkerstedt, T., Alexanderson, K., & Westerlund, H. (2013). Inflytande över arbetstiden och sjuknärvaro/sjukfrånvaro. *Arbetsmarknad & Arbetsliv*, 19(4), 87-99.
- Lindfors, P., & Hansen, N. (2018). Control dimensions, job demands and job satisfaction: does ownership matter?. *International Journal of Workplace Health Management*, 11(5), 305-318.
- Linna, P., Ukko, J., Pekkola, S., Melkas, H. (2010) Defining and measuring productivity in the public sector: managerial perceptions, *International Journal of Public Sector Management*, 23(3) 300-320.
- Llosa, J. A., Menéndez-Espina, S., Agulló-Tomás, E., & Rodríguez-Suárez, J. (2018). Job insecurity and mental health: A meta-analytical review of the consequences of precarious work in clinical disorders. *anales de psicología*, 34(2), 211-221.
- Mai, Q. D., Hill, T. D., Vila-Henninger, L., & Grandner, M. A. (2019). Employment insecurity and sleep disturbance: Evidence from 31 European countries. *Journal of sleep research*, 28(1), e12763.
- Murray, R. (2006) Vad är effektivitet och hur mäta den i kommunal verksamhet?, i *Mått på välfärdens tjänster – en antologi om produktivitet och effektivitet i kommunala verksamheter*, Expertgruppen för studier i samhällsekonomi 2006:2, s. 117-163.
- Mustosmäki, A., Anttila, T., & Oinas, T. (2013). Engaged or not? A comparative study on factors inducing work engagement in call center and service sector work. *Nordic journal of working life studies*, 3(1), 49.
- Nielsen, M. L., Dyreborg, J., & Lipscomb, H. J. (2019). Precarious work among young Danish employees-a permanent or transitory condition?. *Journal of Youth Studies*, 22(1), 7-28.
- Nordiska Ministerrådet (2018) State of the Nordic Region 2018. Köpenhamn: Nordiska Ministerrådet.
- Ojala, S., & Pyöriä, P. (2019). Precarious work and the risk of receiving a disability pension. *Scandinavian journal of public health*, 47(3), 293-300.
- Oke, A., Braithwaite, P., & Antai, D. (2016). Sickness absence and precarious employment: A comparative cross-national study of Denmark, Finland, Sweden, and Norway. *Int J Occup Environ Med (The IJOEM)*, 7(3 July), 713-125.
- Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan-a web and mobile app for systematic reviews. *Systematic reviews*, 5(1), 210. doi:10.1186/s13643-016-0384-4

- Parding, K., & Berg-Jansson, A. (2018). Conditions for workplace learning in professional work: Discrepancies between occupational and organisational values. *Journal of Workplace Learning*, 30(2), 108-120.
- Piasna, A. (2018). Scheduled to work hard: The relationship between non-standard working hours and work intensity among European workers (2005–2015). *Human Resource Management Journal*, 28(1), 167-181.
- Piasna, A., Smith, M., Rose, J., Rubery, J., Burchell, B., & Rafferty, A. (2013). Participatory HRM practices and job quality of vulnerable workers. *The International Journal of Human Resource Management*, 24(22), 4094-4115.
- Pyöriä, P., & Ojala, S. (2016). Precarious work and intrinsic job quality: Evidence from Finland, 1984–2013. *The Economic and Labour Relations Review*, 27(3), 349-367.
- Ramstad, E. (2014). Can high-involvement innovation practices improve productivity and the quality of working-life simultaneously? Management and employee views on comparison. *Nordic journal of working life studies*, 4(4), 25-45.
- Regeringsbeslut A2018/01349/ARM. Uppdrag att sammanställa kunskap om faktorer som skapar friska och välmående arbetsplatser. Hämtad från <https://www.regeringen.se/>
- Reuter, M., Wahrendorf, M., Di Tecco, C., Probst, T. M., Ruhle, S., Ghezzi, V., ... & Dragano, N. (2019). Do Temporary Workers More Often Decide to Work While Sick? Evidence for the Link between Employment Contract and Presenteeism in Europe. *International journal of environmental research and public health*, 16(10), 1868.
- Saloniemi, A., & Salminen, S. (2010). Do fixed-term workers have a higher injury rate?. *Safety science*, 48(6), 693-697.
- Sharma, N., Singh, R. K. (2019) A unified model of organizational effectiveness, *Journal of Organizational Effectiveness: People and Performance*, 6(2) 114-128.
- Siegrist J (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1, 27–41.
- Snorraddóttir, Á., Tómasson, K., Vilhjálmsdóttir, R., & Rafnsdóttir, G. L. (2015). The health and well-being of bankers following downsizing: a comparison of stayers and leavers. *Work, employment and society*, 29(5), 738-756.
- Strandlund, E., Bernhard-Oettel, C., & Låstad, L. (2018). Otrygghet–oro–ohälsa? En studie bland handelsanställda. *Arbetsmarknad & Arbetsliv*, 24(1-2), 27-46.
- Strauss-Raats, P. (2019). Temporary safety. Regulating working conditions in temporary agency work. *Safety science*, 112, 213-222.
- Svedahl, E. R., Pape, K., Toch-Marquardt, M., Skarshaug, L. J., Kaspersen, S. L., Bjørngaard, J. H., & Austad, B. (2019). Increasing workload in Norwegian general practice—a qualitative study. *BMC family practice*, 20(1), 68.
- Svensson, S. (2012). Flexible working conditions and decreasing levels of trust. *Employee Relations*, 34(2), 126-137.
- Trydegård, G. B. (2012). Care work in changing welfare states: Nordic care workers' experiences. *European Journal of Ageing*, 9(2), 119-129.
- Waenerlund, A. K., Virtanen, P., & Hammarström, A. (2011). Is temporary employment related to health status? Analysis of the Northern Swedish Cohort. *Scandinavian journal of public health*, 39(5), 533-539.
- Van Aerden, K., Moors, G., Levecque, K., & Vanroelen, C. (2015). The relationship between employment quality and work-related well-being in the European Labor Force. *Journal of Vocational Behavior*, 86, 66-76.
- Viitala, R., & Kantola, J. (2016). Temporary agency workers shake a work community: a social capital perspective. *Employee Relations*, 38(2), 147-162.
- Vingård, E. (2015). Psykisk ohälsa, arbetsliv och sjukfrånvaro : en kunskapsöversikt. Hämtad från <http://urn.kb.se/resolve?urn=urn:nbn:se:hig:diva-23053>
- Virtanen, P., Janlert, U., & Hammarström, A. (2011). Exposure to temporary employment and job insecurity: a longitudinal study of the health effects. *Occupational and environmental medicine*, 68(8), 570-574.

Unemo, L. (2012) Teori och forskningsläget, i Den effektiva staten – en antologi från Statskontoret, Statskontoret 2012, s. 15-49.

von Thiele Schwarz, U., Nielsen, K. M., Stenfors-Hayes, T., & Hasson, H. (2017). Using kaizen to improve employee well-being: Results from two organizational intervention studies. *Human relations*, 70(8), 966-993.

Öhrling, T. (2014). Increased participation among cleaners as a strategy to improve quality and occupational health. *Nordic journal of working life studies*, 4(3), 79-98.



## 6. Appendices

### Appendix 1 – Inclusion and exclusion criteria

The inclusion and exclusion criteria are based on the PEO framework. P = participants, population or problem. E = exposure. O = outcomes of interest.

#### Inclusion criteria

P	E	O
Work organizations, workplaces and similar terms/synonyms	Different ways of organizing work	Employee health and well-being, e.g. Quality of life, well-being, health indicators, mental health, psychosocial well-being, healthy work, life satisfaction, meaningfulness, work satisfaction, job stress, work-life balance, workplace health, self-rated health.
Organizations as in a group of individuals	Organization models/theories	The organization's efficiency/productivity
	How the work is managed and organized, e.g. line organization	

#### Exclusion criteria

P	E	O
Organizations of other types based on voluntary unsalaried work	Studies that focus solely on self-employed people who are not part of an overarching organization or who have multiple employees, such as a hairdresser who has her own business in her basement.	Ergonomics
Single individuals, e.g. employees	Studies that focus on the organization of work in which the roles of producer and consumer ("prosumers") are conflated, e.g. studies about social media or Wikipedia. The focus is on the prosumer role specifically, and not on the underlying organization.	Customary care/treatment administered by the healthcare system or its equivalent
Unsalariated work	Informal organization that studies all aspects of the psychosocial work environment	
The labour market overall	Organization of the labour market	

This appendix has been translated from Swedish to English. The authors of this report have not reviewed the translation.

## Appendix 2 – Categorization template

References – complete references provided here as per APA.
Year – the year of publication is stated here.
Participants/population – the population or who has participated in the study is stated here.
Problem/purpose – the overall problem formulation or purpose of the article is stated here.
Main result – the article's main result in succinct form.
Methodological approach – which method the authors of the article used
Theoretical framework – which theoretical framework the authors of the article used
Form of employment – which form(s) of employment the article addresses
Organization – the organization of work that the article concerns
Efficiency – whether the article addresses efficiency and productivity from an organizational perspective
Sex/gender – whether the article focuses on a sex or gender perspective
Ethnicity – whether the article concerns a specific ethnicity (e.g. migrant workers)
Class/white-collar workers/blue-collar workers – it is indicated here whether the article has a particular class perspective or pertains to work groups consisting of white-collar and/or blue-collar workers.
Sector – the sector addressed in the study is specified here.
Country – the country or countries included in the study is/are specified here.
Other – "Other" can be entered here in connection with categorization, e.g. if the authors of the article have indicated that the study is representative only of the studied group.

## Appendix 3 – Sector breakdown

The sector breakdown has been performed as per SNI 2007.

A. Agriculture, forestry and fishing
B. Mineral extraction
C. Manufacturing
D. Supply of electricity, gas, heating and cooling
E. Water supply, sewage treatment, waste management and renovation
F. Construction industry
G. Trade; motor vehicle and motorcycle repair
H. Transport and storage
I. Hotel and restaurant industry
J. Information and communication industry
K. Finance and insurance industry
L. Real estate business
M. Enterprises in the areas of law, economics, science and technology
N. Rental, administrative and support activities, travel services and other support services
O. Public administration and defence; compulsory social security
P. Education
Q. Healthcare and nursing; social services
R. Culture, entertainment and leisure
S. Other service industry
T. Gainful household employment; household production of various goods and services for own consumption
U. Enterprises associated with international organizations, foreign embassies and the like

In addition to these categories we have added Other (V), which covers several of the sectors A–U, and Not Specified (W), for cases where the article does not make clear which sector(s) are intended. W includes articles that draw on data from large European databases, such as the European Working Conditions Surveys (EWCS).

## Appendix 4 – Search strings

Main search Scopus 190626		
	Description	Items found (approx.)
1	<p>Organization of work</p> <p>TITLE-ABS-KEY (Voice W/1 (silenc*)) OR TITLE-ABS-KEY (Employ* W/0 (insecurity or security)) OR TITLE-ABS-KEY («Employ*relations*») OR TITLE-ABS-KEY (Work W/0 (organizing OR organizational OR organization)) OR TITLE-ABS-KEY ( Governance W/1 ( work* OR employ* OR jobs OR labor OR corporate OR organization* )) OR TITLE-ABS-KEY (“Termsofemployment”) OR TITLE-ABS-KEY (“Workplace organization”) OR TITLE-ABS-KEY («Wellbeing» OR Wellbeing) OR TITLE-ABS- KEY ( Health W/0 (work* OR employ* OR occupational) ) OR TITLE-ABS-KEY (“Working conditions”) OR TITLE-ABS-KEY (“Organization of work”) OR TITLE-ABS- KEY (Managing W/1 (Work OR Job OR labor)) OR TITLE-ABS-KEY (“Working practices”) OR TITLE-ABS-KEY (“Work environment”) OR TITLE-ABS-KEY («Work organization”)</p>	407 933
2	<p>Forms of work</p> <p>TITLE-ABS-KEY (“Agencywork*”) OR TITLE-ABS-KEY (Alternative PRE/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (Atypical PRE/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (Casual PRE/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (Contingent PRE/0 (Work* OR Employ* OR Job OR Labour)) OR TITLE-ABS- KEY (Crowd PRE/1 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY («Digital labour») OR TITLE-ABS-KEY («Employee sharing») OR TITLE-ABS-KEY («Gig economy») OR TITLE-ABS-KEY («Job sharing») OR TITLE-ABS-KEY (Non-permanent PRE/0 (Work* OR Employ* OR Job OR Contracts)) OR TITLE-ABS-KEY (Non-standard PRE/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (Nonstandard PRE/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (On-call PRE/0 (Work* OR Employ* OR Job OR Contracts)) OR TITLE-ABS-KEY (Outsourcing) OR TITLE-ABS-KEY (Platform PRE/0 (Work* OR businesses))</p> <p>OR TITLE-ABS-KEY («Portfoliowork») OR TITLE-ABS-KEY (Precarious W/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (Probation) OR TITLE-ABS-KEY (- Seasonal PRE/0 (Work* OR Employ* OR Job)) OR TITLE-ABS-KEY (Temporary PRE/0 (Work* OR Employ* OR Job OR Contracts)) OR TITLE-ABS-KEY (“Professionalization”) OR TITLE-ABS-KEY (“Professional work”) OR TITLE-ABS-KEY ( Privatization) OR TITLE-ABS-KEY (Bureaucra*) OR TITLE-ABS-KEY (Entrepreneurship) OR TITLE-ABS-KEY (“Lean production” ) OR TITLE-ABS-KEY (“Lean management” ) OR TITLE-ABS-KEY (“New public management”)</p>	145 794
3	1 AND 2 (3 standard articles)	5 740
4	<p>3 AND Filters activated:</p> <p>Language: English</p> <p>Publication type: Article (incl. In press)</p> <p>Year: 2009 and after</p> <p>There are 179 reviews.</p> <p>There are 365 books and book chapters.</p>	2 484 (no duplicates removed)

DOI(10.4337/9781784716899) OR DOI(10.1016/0361-3682(93)E0001-W) OR DOI(10.1177/0011392111402585) OR DOI(10.1016/j.ssci.2012.05.016) OR DOI(10.1016/j.ssci.2014.03.016) OR DOI(10.1177/0011392111402584) OR DOI(10.1108/09513551111121329) OR DOI(10.1177/0170840612443456) OR DOI(10.1111/j.1468-0432.2009.00449.x) OR DOI(10.1111/gwao.12194)

**Test search Web of Science 190626**

No	Description	Items found (approx.)
1	<p>Organiza- tion of work</p> <p>TS=(Voice NEAR/1 (silenc*)) OR TS=(Employ* NEAR/0 (insecurity or security)) OR TS=(«Employ* relations*») OR TS=(Work NEAR/0 (organizing OR organiza- tional OR organization)) OR TS=( governance NEAR/1 ( work* OR employ* OR jobs OR labor OR corporate OR organization* ) ) OR TS=(“Terms of employ- ment”) OR TS=(“Workplace organization”) OR TS=( «Well being» OR Wellbeing ) OR</p> <p>TS=( health NEAR/0 (work* OR employ* OR occupational )) OR TS=(“Working conditions”) OR TS=(“Organization of work”) OR TS=(Managing NEAR/1 (Work OR Job OR labor)) OR TS=(“Working practices”) OR TS=(“Work environment”) OR TS=(“Work organization”)</p>	203 668
2	<p>Forms of work</p> <p>TS=( “Agency work*”) OR TS=(“Alternative Work*” OR “Alternative Employ*” OR “Alternative Job”) OR TS=(“Atypical Work*” OR “Atypical Employ*” OR “Atypical Job”) ORTS=(“Casual Work*” OR “Casual Employ*” OR “Casual Job”) OR TS=(“Contingent Work*” OR “Contingent Employ*” OR “Contingent Jobs” OR “Contingent Labour”) OR TS=(“Crowd Work*” OR “Crowd Employ*” OR “Crowd Job”) OR TS=(«Digital labour») ORTS=(«Employee sharing») OR TS=(«Gig economy») OR TS=(«Job sharing») OR</p> <p>TS=(“Non-permanent Work*” OR “Non-permanent Employ*” OR “Non-perma- nent Jobs” OR “Non-permanent Contracts”) OR TS=(“Non-standard Work*” OR “Non-standard Employ*” OR “Non-standard Jobs”) OR TS=(“Nonstandard Work*” OR “Nonstandard Employ*” OR “Nonstandard Jobs”) OR TS=(“On-call Work*” OR “On-call Employ*” OR “On-call Jobs” OR “On-call Contracts”) OR TS=(Outsourcing) ORTS=(“Platform Work*” OR “Platform businesses”) OR TS=(«Portfolio work») OR TS=(“Precarious Work*” OR “Precarious Employ*” OR “Precarious Jobs”) OR TS=(Probation) OR TS=(“Seasonal Work*” OR “Seasonal Employ*” OR “Seasonal Jobs”) OR TS=(“Temporary Work*”</p> <p>OR “Temporary Employ*” OR “Temporary Jobs” OR “Temporary Contracts”) OR TS=(“Professionalization”) OR TS=(“Professional work”) OR TS=( Privatization) OR TS=(Bureaucra*) OR TS=(Entrepreneurship) OR TS=(“Leanproduction”) OR TS=(“Lean management” ) OR TS=(“New publicmanagement”)</p>	104 695
3	1 AND 2	3 945
4	<p>3 AND Filters activated:</p> <p>Language: English</p> <p>Publication type: Article (incl. in press)</p> <p>Year: 2009 and after</p> <p>There are 103 reviews.</p> <p>There are 131 books and book chapters.</p>	<p>2 283</p> <p>(no duplicates removed)</p>



Swedish Agency for Work  
Environment Expertise

[sawee.se](http://sawee.se)

ISBN 978-91-986142-2-0