

Experiences of Finnish Defence Forces personnel on equality related to remote work— Career development opportunities and remote work agreements

Tiina Kähkönen

tiina.kahkonen@mil.fi

 <https://orcid.org/0000-0003-3879-4566>

Department of Leadership and Military Pedagogy, National Defence University, Kadettikouluntie 7, 00860, Helsinki, Finland

Abstract

This study investigates equality issues related to remote work, career development, and remote work agreements within the Finnish Defence Forces. A total of 868 employees participated in the study. A quantitative approach was used, and t-tests ($n = 868$) were conducted to assess statistically significant differences in experiences of equality concerning personnel promotion opportunities, job rotation opportunities, and the ability to accept work regardless of location as well as suitable remote work agreements. The comparison groups were hybrid workers versus on-site workers, soldiers versus civilians, and men versus women. The study found that the personnel do not generally think that on-site workers have better promotion opportunities than hybrid workers. Remote work was seen as promoting equal job rotation opportunities among personnel. Remote workers agreed with this opinion more than on-site workers, and the difference in opinion between both groups was highly significant. The majority of respondents, particularly hybrid workers, agreed that equality would be better achieved through individual agreements on remote work. However, on-site women workers was the only group with the opinion that strictly limited remote workdays promoted equality better than individual agreements. Hybrid workers were less supportive of the current limits, and significant differences were found between them and on-site workers. This study highlights the need for more flexible, individualised remote work policies to enhance workplace equality. The findings can inform the development of management strategies and remote work practices in organisations. Future research could explore the international and organisational variation of these effects and provide deeper insights into employees' perceptions of equality in remote work environments by integrating qualitative and quantitative methods.

Keywords:

remote work, equal career development, Finnish Defence Forces, remote work agreements

Article info

Received: 2 September 2024

Revised: 28 January 2025

Accepted: 4 February 2025

Available online: 19 April 2025

Citation: Kähkönen, T. (2025) 'Experiences of Finnish Defence Forces personnel on equality related to remote work – Career development opportunities and remote work agreements', *Security and Defence Quarterly*, 50(2), pp. 21–35. doi: [10.35467/sdq/200794](https://doi.org/10.35467/sdq/200794).



© 2025 T. Kähkönen published by War Studies University, Poland.

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Introduction

The Finnish Defence Forces have actively transitioned towards a modern work organisation that facilitates various flexible working arrangements, including remote work for personnel. Remote work can be defined as “a flexible work arrangement where employees perform their duties in locations outside the traditional workplace and do not have direct contact with colleagues but can communicate with them through technology” (Di Martino and Wirth, 1990, p. 530). As remote work becomes increasingly prevalent, especially after Finland’s accession to the North Atlantic Treaty Organization (NATO) and the establishment of remote work as a standard practice within the defence forces, a question arises regarding the experience of equality that remote work evokes among defence forces personnel in relation to their career development.

Equality and fairness at the workplace are closely linked concepts—discrimination and unequal treatment at the workplace are prohibited. According to Finland’s Non-Discrimination Act (1325/2014), an employer must not place employees in an unequal position based on age, origin, nationality, language, religion, belief, opinion, political activity, trade union activity, family relationships, health, disability, sexual orientation, gender, or any other personal characteristic (Finlex, the Ministry of Justice, Finland, 2014). Furthermore, the prohibition of gender-based discrimination is specified in the Act on Equality between Women and Men (609/1986) (Finlex, the Ministry of Justice, Finland, 1986).

In the Finnish Defence Forces, the nature of tasks performed by soldiers and civilians differs considerably, often making remote work more accessible to civilians than to soldiers. For instance, soldiers in training roles, on ships, in air forces, or in leadership positions typically require physical presence, which limits their ability to engage in remote work. However, initiatives such as decentralised working—where personnel work partially from the defence forces facility nearest to their home—have been introduced to promote work–life balance, reduce commuting, and enhance job satisfaction. These measures have been positively received, with hybrid workers reporting increased satisfaction, which in turn strengthens the Finnish Defence Forces’s reputation as an employer (Kähkönen, 2024; 2023a). Despite these advances, challenges remain. Organising remote work in military contexts is particularly complex due to the handling of classified materials, which often cannot be accessed remotely or over unsecured networks. Additionally, home environments or public spaces like cafés may not meet stringent security requirements (Kähkönen and Huhtinen, 2024).

Equality in remote work has been studied previously. For example, in a study conducted by Kooli (2022), female remote workers reported that working remotely might hinder equal career development, compared to those working in the office. The study found that female remote workers felt marginalised in terms of salary progression and rewards within the work community. Karjalainen (2021) has also explored remote work and the gender-related issues associated with it. Based on research findings, the frameworks, content, and conditions of work can become gendered in remote work settings. Karjalainen (2021) emphasises the need for further research on the topic, particularly large-scale surveys based on extensive data.

The Finnish Government’s Prime Minister’s Office investigated the impact of the COVID-19 crisis on gender equality in Finland. The investigation examined both women’s and men’s perceptions of gender equality at the workplace (Mesiäislehto *et al.*, 2022). According to the study, men perceived that gender equality was achieved at the workplace

more often than women did, and remote work showed a highly increased male respondents' perception of equality between 2018 and 2021. In 2021, the gender gap, with respect to views on equality, was more significant at remote work (2021: women 33% vs. men 48%) than at on-site work (31% vs. 39%). The Prime Minister's Office study (Mesiäislehto *et al.*, 2022) suggests that the increasing positive views of remote workers regarding equal treatment may indicate that remote work promotes more equitable treatment of employees, although further research on equality-related themes is still needed.

On an international level, remote work has been studied from the perspective of whether it is equally accessible to both men and women. According to a previous research, women were underrepresented among remote workers in Europe before the COVID-19 pandemic (López-Igual and Rodríguez-Modroño, 2020). However, findings vary significantly depending on the type and frequency of remote work being examined (Bailey and Kurland, 2002; López-Igual and Rodríguez-Modroño, 2020) as well as the country context (Milasi *et al.*, 2020). The significance of context is not limited to the national level, though. One of the most critical areas that most studies overlook is the extent to which different organisational contexts influence how remote work relates to the varying work and family life outcomes for men and women as well as their experiences of equality. Van der Lippe *et al.* (2018) addressed this issue in greater depth.

Kähkönen (2023b) studied the various impacts of remote work and suggested, among other things, that remote work can promote an employee's career development and enable them to take on work from locations farther away from their hometown. This enhances fairness, for example, between rural and urban dwellers. In Kähkönen's (2023c) literature review, a table is provided listing both positive and negative perceived effects of remote work, including issues related to fairness, such as whether remote workers have the same opportunities for promotion as those primarily working on-site, regardless of gender. Kähkönen (2024) also found that a restriction on remote work (maximum 12 days per month) is seen as somewhat artificial among the Finnish Defence Forces personnel.

Despite these findings, there remains a need for further examination of how remote work influences the perception of equality and career development within military organisations, where job roles—and thus opportunities for remote work—differ significantly between soldiers and civilians as well as between men and women. This study aims to address these gaps by investigating the perception of career development based on the research question: *Do experiences regarding equitable career development differ between respondent groups?* The study also analyses the preferred remote work agreement using the research question: *What types of remote work agreement models are perceived as the most equitable across groups?* To answer these questions, the study examines four key statements related to the impact of remote work on career development and the fairness of agreement models, with results compared across different groups of defence forces personnel.

Theoretical background, context description, and hypotheses

Within the administrative units of the Finnish Defence Forces, equality and non-discrimination plans are regularly drafted, reviewed, and updated. These plans aim to promote the equitable treatment of all personnel, ensure equal opportunities, and foster a healthy and inclusive work environment. These efforts are informed by data collected through equality and workplace atmosphere surveys conducted within the organisation. The Finnish Defence Forces is committed to creating a workplace that upholds fairness, inclusivity, and well-being while enhancing operational efficiency. Central to this commitment

is ensuring that all employees have equal opportunities for training, career advancement, and leave, regardless of personal or family circumstances (Finnish Defence Forces, 2024).

Remote work is not an inherent right within the Finnish Defence Forces, and its applicability depends on the nature of the job. For example, personnel engaged in conscript training are generally unable to work remotely. This job-based limitation is not considered a question of equality, as employees have discretion in selecting positions and career paths and understanding the associated work formats. However, genuine concerns of equity arise when considering whether remote workers receive equal opportunities for advancement and promotion compared to their on-site counterparts, irrespective of gender or job role. Similarly, questions about equitable access to location-independent work options persist.

The rise of remote work represents a transformative shift in workplace practices, eliciting diverse responses from employees. Some may perceive unequal treatment in how remote work policies are applied, while others may experience feelings of discrimination or exclusion due to their chosen work arrangements. These issues are compounded by the potential for misaligned practices among supervisors or colleagues. In the Finnish Defence Forces, remote work is governed by internal policies, and each remote work arrangement requires a formal agreement detailing the terms and expectations for the employee (Kähkönen, 2024).

Remote work and equal career advancement opportunities

Previous studies highlighted feelings of gender-related inequality among remote workers, particularly women who reported that remote work hinders equal career advancement, compared to their colleagues working in the office. It was explained that the perceived inequality manifests through women remote workers feeling sidelined in terms of salary progression and recognition within the workplace (Kooli, 2022). In the Finnish Defence Forces, in contrast, remote work is not supposed to influence reward and promotion opportunities (Kähkönen, 2024), and this differs from Kooli's (2022) previous findings. However, based on previous research findings, it is hypothesised that the personnel of the Finnish Defence Forces may have the following perception:

H1: Women who predominantly work remotely are more likely to believe that on-site workers have better promotion opportunities compared to those who spend a significant portion of their working hours in remote work.

Remote work has previously been studied from the perspective that it creates new opportunities for individuals to take on fulfilling work from locations farther away from their place of residence, which has been found to significantly increase job satisfaction for many (Mello, 2015). For those with long commutes, remote work saves time and money spent on travel and allows them to continue living where their family resides (Kähkönen, 2023b). In the context of the Finnish Defence Forces, rotation between positions is a standard part of soldiers' roles, and many employees live in different locations from their official work sites. Soldier roles are held by both men and women, though the majority are still men. For soldiers, position rotation and changing locations have long been a part of daily life, but for those in civilian roles, remote work may offer new opportunities to advance their careers (Kähkönen, 2023b). Based on this, it is hypothesised that the personnel of the Finnish Defence Forces may have the following perception:

H2: Civilians who work remotely are more likely than soldiers to believe that remote work provides staff with a more equal position in terms of opportunities for rotation and the ability to take on work irrespective of location.

Remote work and flexibility in work settings

The allowed amount of remote work often depends on the organisation, and in practice, the choice of how much and when to work remotely is ultimately left to the employees themselves (Golden, 2008). In the Finnish Defence Forces, the maximum number of remote workdays per month under normal circumstances is 12, and in some units, it is possible to work for unlimited remote days for 2 months per year. According to Kähkönen (2024), many employees feel that the 12-day remote work limit, which is based on the solidarity clause, seems very contrived. For example, during the COVID-19 pandemic, employees like backpackers greatly benefited from unlimited remote work.

On the other hand, according to Kähkönen (2024), many employees have recognised that they prefer to work fewer than 12 remote days per month, and some either do not want to or cannot work remotely due to the nature of their job. From an equality perspective, this study aims to measure whether employees favour a uniformly restricted amount of remote work or a flexible approach tailored to individual needs. The permitted amount of remote work also influences the ability to accept location-independent work, which in turn affects career advancement opportunities. It is hypothesised that the personnel of the Finnish Defence Forces may have the following perception:

H3: Employees who engage in remote work are more likely to believe than on-site workers that equality would be better served if each person could agree on the amount of remote work they do based on their individual needs.

Conversely, individuals who either do not want or are unable to work remotely may have a negative attitude towards the possibility of their colleagues having unlimited remote work opportunities (Kähkönen, 2024). These individuals might prefer a more restricted number of remote workdays, advocating for equal limits, rather than individualised agreements. Based on this, it is hypothesised that the personnel in the Finnish Defence Forces may have the following perception:

H4: Employees who regularly work only on-site at their official workplace are more likely than remote workers to believe that equality is better served by a strictly limited maximum number of remote workdays that applies equally to everyone.

Methods

This quantitative study aims to evaluate the Finnish Defence Forces personnel's perceptions of equality in relation to remote work using a 7-point Likert scale. The scale ranged from 1 (Strongly disagree) to 7 (Strongly agree). The equality-focused section of the survey was part of a broader dissertation project that developed a validated scale for assessing remote work conditions. Open-ended questions were also included to gather qualitative insights (source to be added after peer review).

The survey was conducted from January to February 2023 across five Finnish Defence Forces units: Army Command, Air Force Command, Navy Command, Pori Brigade, and Karelian Brigade. In line with research permissions, data collection included three defence forces headquarters units and two administrative units, which were randomly selected. This sampling approach ensured diverse perspectives by incorporating both headquarters personnel and personnel of administrative units involved in conscript training. The aim was to mitigate potential response biases that might arise from focusing exclusively on either type of unit.

A total of 2,222 employees in these units (total sample size) received an anonymous survey link via email, and 868 responded, resulting in a response rate of 39%. The background information of the respondents is presented in Table 1. Among the respondents, 646 regularly engaged in remote or hybrid work, where the number of remote and on-site work-days varied each month (average of 6 days per month). A total of 222 respondents worked exclusively on-site at their official workplace. Statistical tests were conducted using the PSPP.Ink software.

Results

Descriptive results

Figure 1 illustrates the perceptions of on-site and hybrid workers regarding equality in promotion opportunities, job rotation, and remote work agreements. *Promotion opportunities:* On-site workers (3.6) and hybrid workers (3.2) generally believed that working remotely does not negatively impact promotion opportunities. *Job rotation opportunities:* Hybrid workers (5.7) were more likely than on-site workers (4.7) to perceive that remote work increases fairness in job rotation opportunities. *Remote work agreements:* Both hybrid workers (5.1) and on-site workers (4.6) preferred individual agreements over strict limitations to determine the amount of remote work allowed. *Support for limited remote work:* Limited remote work was less favoured overall, with hybrid workers having a score of 4.1 and on-site workers with a score of 4.2.

Next, a comparison of the percentage distribution of responses between on-site workers and hybrid workers is conducted. Table 2 shows the distribution, means, and medians of responses from hybrid workers. Table 3, on the other hand, shows the distribution, means, and medians of responses from on-site workers. In order to further analyse any potential statistical differences in opinions and experiences between genders as well as between soldiers and civilians, conducting statistical tests in the next phase was essential.

Table 1. Background information of respondents (N = 868).

Background information	Category 1 Frequency (%)	Category 2 Frequency (%)	Category 3 Frequency (%)	Category 4 Frequency (%)	Category 5 Frequency (%)
Age (years)	<25 (2.5%)	26–35 (18%)	36–45 (34%)	46–55 (34.1%)	>55 (11.4%)
Gender	Male (78.5%)	Female (20.6%)	Other/prefer not to say (0.9%)	–	–
Education level	Basic education (1.6%)	Vocational training (26.5%)	University of applied sciences (18.4%)	University/higher education (53.5%)	–
Employment Type	Temporary (14.6%)	Permanent (85.4%)	–	–	–
Tenure	<1 year (3.3%)	1–5 years (11.9%)	6–10 years (10.4%)	11–15 years (12.5%)	>15 years (61.9%)
Job type	Soldier (69.8%)	Civilian (30.2%)	–	–	–
Supervisor role	Yes (26%)	No (74%)	–	–	–
Duration as supervisor	<1 year (8.8%)	1–5 years (41.2%)	6–10 years (16.4%)	11–15 years (10.6%)	>15 years (23%)

Figure 1. The mean of the results: on-site workers versus hybrid workers (N = 868).

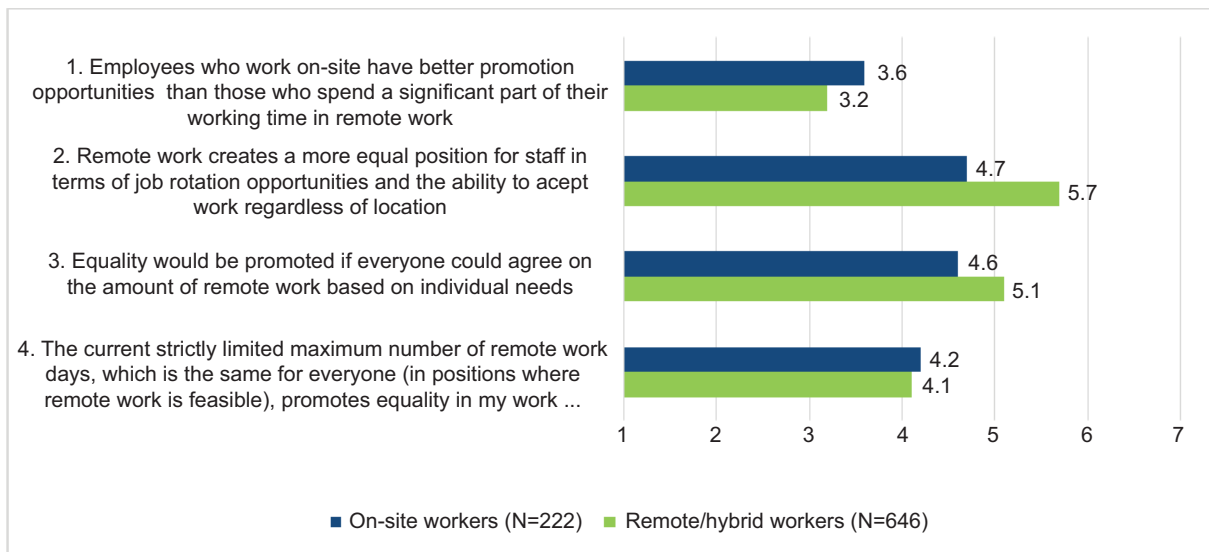


Table 2. The distribution, means, and medians of responses from remote/hybrid workers.

N = 646, Remote/hybrid workers	Evaluate remote work from the perspective of equality. The scale: 1 = Strongly disagree. 2 = Mostly disagree. 3 = Somewhat disagree. 4 = Neither agree nor disagree. 5 = Somewhat agree. 6 = Mostly agree. 7 = Strongly agree.							Mean	Median
	1	2	3	4	5	6	7		
Employees who work on-site have better promotion opportunities than those who spend a significant part of their working time at remote work	20.7%	20.6%	7.9%	30.2%	11.0%	5.3%	4.3%	3.2	4
Remote work creates a more equal position for staff in terms of job rotation opportunities and the ability to accept work regardless of location	1.9%	2.3%	3.1%	14.2%	12.7%	24.5%	41.3%	5.7	6
Equality would be promoted if everyone could agree on the amount of remote work based on individual needs	4.8%	6.2%	6.7%	16.2%	15.5%	19.8%	30.8%	5.1	6
The current strictly limited maximum number of remote workdays, which is the same for everyone (at positions where remote work is feasible), promotes equality in my work organisation	13.6%	14.4%	10.2%	15.8%	13.8%	16.3%	15.9%	4.1	4

Statistical results

To analyse potential statistically significant differences in the experiences of equality related to remote work and career advancement among respondents, a t-test was conducted. The first step was to assess the homogeneity of variances using Levene's test. If the *p*-value from Levene's test is less than 0.050, a test for unequal variances is used; if the

Table 3. The distribution, means, and medians of responses from on-site workers.

N = 222, On-site workers	Evaluate remote work from the perspective of equality. The scale: 1 = Strongly disagree. 2 = Mostly disagree. 3 = Somewhat disagree. 4 = Neither agree nor disagree. 5 = Somewhat agree. 6 = Mostly agree. 7 = Strongly agree.								
	1	2	3	4	5	6	7	Mean	Median
Employees who work on-site have better promotion opportunities than those who spend a significant part of their working time at remote work	16.7%	16.2%	9.0%	28.8%	13.1%	11.3%	4.9%	3.6	4
Remote work creates a more equal position for staff in terms of job rotation opportunities and the ability to accept work regardless of location	2.7%	12.2%	7.2%	17.6%	25.2%	21.6%	13.5%	4.7	5
Equality would be promoted if everyone could agree on the amount of remote work based on individual needs	9.0%	9.4%	9.9%	15.8%	17.6%	17.1%	21.2%	4.6	5
The current strictly limited maximum number of remote workdays, which is the same for everyone (at positions where remote work is feasible), promotes equality in my work organisation	15.3%	8.1%	10.3%	22.1%	13.1%	16.2%	14.9%	4.2	4

p-value is greater than 0.050, a test for equal variances is used (see Levene's test *p*-values in Table 4). For comparison between two groups, the *p*-value from the t-test is interpreted based on whether equal or unequal variances are assumed. The t-test was considered useful because the *p*-values can be read directly from the report on their respective rows.

Promotion opportunities

Respondents were asked whether on-site workers have better promotion opportunities than remote or hybrid workers. Across all groups, the mean of the responses was below 4, indicating that remote work was not perceived as a disadvantage for promotion. However, when the responses of the groups were compared, statistical differences emerged. Respondents who engage in remote or hybrid work were more likely to believe that remote work does not negatively affect promotion opportunities, compared to those who work exclusively on-site, and the difference in opinion between both groups was statistically significant (*p* = 0.008). Similarly, soldiers who work remotely or in a hybrid model most often felt that remote work does not diminish their promotion opportunities, compared to those who work solely on-site. Further, soldiers who work remotely or in a hybrid model were also more likely to hold this belief than civilians who regularly engage in remote or hybrid work, and the difference in opinion between both groups was nearly statistically significant (*p* = 0.024).

Job rotation and location-independent work opportunities

Respondents evaluated whether remote work improves equality in job rotation and accepting work independent of location. Responses across all groups averaged above 4,

Table 4. Statements and indicators.

Statement 1: Employees who work on-site have better promotion opportunities than those who spend a significant part of their working time at remote work	Levene's test <i>p</i>-value	Mean	<i>p</i>-value
Remote/hybrid workers (all) (N = 646)	0.823	3.23	0.008**
On-site workers (all) (N = 222)		3.59	
Remote/hybrid-working women (N = 139)	0.002	3.22	0.94
Remote/hybrid-working men (N = 500)		3.23	
Remote/hybrid-working soldiers (N = 438)	0.003	3.13	0.024*
Remote/hybrid-working civilians (N = 208)		3.44	
On-site-working women (N = 40)	0.432	3.45	0.586
On-site-working men (N = 181)		3.62	
On-site-working soldiers (N = 168)	0.071	3.5	0.18
On-site-working civilians only (N = 54)		3.87	
Statement 2: Remote work creates a more equal position for staff in terms of job rotation opportunities and the ability to accept work regardless of location	Levene's test <i>p</i>-value	Mean	<i>p</i>-value
Remote/hybrid workers (all) (N = 646)	0.026	5.72	0.000***
On-site workers (all) (N = 222)		4.69	
Remote/hybrid-working women (N = 139)	0.925	5.78	0.658
Remote/hybrid-working men (N = 500)		5.72	
Remote/hybrid-working soldiers (N = 438)	0.465	5.75	0.552
Remote/hybrid-working civilians (N = 208)		5.67	
On-site-working women (N = 40)	0.001	5.10	0.026*
On-site-working men (N = 181)		4.60	
On-site-working soldiers (N = 168)	0.418	4.77	0.233
On-site-working civilians only (N = 54)		4.46	
Statement 3: Equality would be promoted if everyone could agree on the amount of remote work based on individual needs	Levene's test <i>p</i>-value	Mean	<i>p</i>-value
Remote/hybrid workers (all) (N = 646)	0.042	5.14	0.000***
On-site workers (all) (N = 222)		4.59	
Remote/hybrid-working women (N = 139)	0.152	5.08	0.554
Remote/hybrid-working men (N = 500)		5.18	
Remote/hybrid-working soldiers (N = 438)	0.333	5.11	0.487
Remote/hybrid-working civilians (N = 208)		5.21	
On-site working-women (N = 40)	0.859	4.33	0.342
On-site-working men (N = 181)		4.65	
On-site-working soldiers (N = 168)	0.602	4.7	0.166
On-site-working civilians only (N = 54)		4.28	

(continues)

Table 4. Continued

Statement 4: The current strictly limited maximum number of remote workdays, which is the same for everyone (at positions where remote work is feasible), promotes equality in my working organisation	Levene's test <i>p</i> -value	Mean	<i>p</i> -value
Remote/hybrid workers (all) (N = 646)	0.195	4.14	0.832
On-site workers (all) (N = 222)		4.18	
Remote/hybrid-working women (N = 139)	0.623	4.64	0.001***
Remote/hybrid-working men (N = 500)		4.00	
Remote/hybrid-working soldiers (N = 438)	0.888	3.96	0.001***
Remote/hybrid-working civilians (N = 208)		4.52	
On-site-working women (N = 40)	0.992	4.97	0.005**
On-site-working men (N = 181)		4.00	
On-site-working soldiers (N = 168)	0.359	3.98	0.01**
On-site-working civilians only (N = 54)		4.78	

***Highly statistically significant; **statistically significant; *almost statistically significant.

indicating agreement that remote work enhances equality in these areas. Those who regularly engage in remote or hybrid work themselves were more likely to believe that remote work provides a more equal position in terms of job rotation and the ability to accept location-independent work, compared to those who work exclusively on-site; the difference in opinion between both groups was statistically significant. Among employees who work exclusively on-site, women were more likely than men to believe that remote work creates a more equal position in terms of job rotation opportunities and the ability to accept work independent of location; the difference in opinion between both groups was nearly statistically significant ($p = 0.026$).

Agreeing on the amount of remote work

Respondents were asked whether individual agreements about remote work promote equality. The responses of all groups averaged above 4, reflecting strong support for individual agreements. Respondents who regularly engage in remote work were more likely than those who work exclusively on-site to believe that individual agreements would increase equality, and the difference in opinion between both groups was statistically significant ($p = 0.000$). Moreover, when asked whether a strictly limited maximum number of remote workdays (12 days per month) currently applied in the work organisation would promote equality, a statistically significant difference emerged between women and men who regularly work remotely, with women being more supportive of the limited number of remote workdays than men ($p = 0.001$). However, it is notable that both groups favoured individual agreements more.

A statistically significant difference was also found between soldiers and civilians who regularly work remotely ($p = 0.001$), with civilians being somewhat supportive of a limited number of remote workdays (mean: 4.52), while soldiers did not support this option at all (mean: 3.96). An especially interesting finding is that male soldiers who work exclusively on-site also did not support a limited number of remote workdays. An almost statistically significant difference was found between on-site-working women and men ($p = 0.005$).

and between soldiers and civilians ($p = 0.01$). Among on-site-working civilians, women favour a uniform limited number of remote workdays for everyone in terms of promoting equality more than individual agreements. However, all other groups lean more towards individual agreements.

Assessment of the study's reliability and limitations

Several issues were identified during the analysis that warrant a critical approach. Three remote respondents consistently rated all items with a score of 7, inflating averages, while one remote respondent consistently rated all items with a score of 1, slightly lowering averages. Given the large sample size ($N = 868$), these anomalies were deemed minor and all responses were included.

The response rate was 39%. Factors potentially reducing participation include limited reminders and the inherent challenges of surveying personnel during operational activities. In addition, according to the research permission, the survey could not be answered during working hours. In reality, the number of people who received the email may be lower than the reported personnel strength (2,222), as in a large organisation there are always individuals who cannot be reached by a survey conducted over a limited period. The reasons for this may include extensive ongoing military exercises, participation in crisis management tasks, holidays, or transfer to other administrative units, all of which directly affect the response rate. However, the sample distribution (69.8% soldiers and 30.2% civilians; 78.5% men and 20.6% women) closely reflects the [Finnish Defence Forces \(2023\)](#) personnel composition (defence forces personnel report).

Potential biases can stem, for example, from uneven group sizes, with smaller subgroups (e.g., on-site women). However, this naturally reflects organisational demographic distribution. Future studies could address these limitations by extending the survey period, increasing reminder frequency, and incorporating more motivational elements in the survey cover letter. Employee participation could be encouraged in the organisation if it were possible to use working hours for completing the survey. During free time, there may not be enough time or willingness to respond to work-related surveys.

One limitation of the study could be the main researcher's personal involvement, not only as a researcher but also as an employee of the organisation under investigation. On the other hand, the research was conducted partly within a research team, and the survey design and items were also tested and evaluated by an external university and external psychologists from the defence forces research centre. Thus, the researcher's connection to the organisation, due to contextual knowledge, brings more benefits than drawbacks to the study, and the aforementioned factors reduce potential biases in interpreting the results. Some questions were added to the survey also, due to the research needs expressed by the Finnish Defence Studies, and one such desired research theme was specifically "equality in remote work practices."

Discussion and conclusions

This study aims to investigate the experiences of defence forces employees regarding the impact of remote work on equitable career development as well as equality in relation to remote work agreements and whether differences can be observed between

various groups. Based on the results, the following decisions relating to hypotheses testing were made.

H1: Specifically, remote-working women believe that those working on-site have better promotion opportunities than those who work remotely for a significant portion of their time. *Conclusion: rejected.* Contrary to Kooli (2022), who argued that female remote workers feel disadvantaged regarding salary and career development, this study aligns with Kähkönen (2023b) in finding no perceived negative impact of remote work on promotion opportunities within the Finnish Defence Forces. Equal treatment across employee groups appears to be supported by the organisation's transparent policies, which emphasise equal access to training, career advancement, and leave opportunities. This outcome highlights how organisational culture and clear communication can mitigate perceived inequalities. However, this result may differ in other contexts but suggests broader applicability within military organisations with similar structures.

H2: Specifically, civilians who work remotely are more likely than soldiers to believe that remote work provides staff with a more equal position in terms of opportunities for rotation and the ability to take on work irrespective of location. *Conclusion: rejected.* While Mello (2015) emphasised the potential of remote work to enhance job satisfaction by enabling access to meaningful work from various locations, this study found no significant difference in perceptions between civilians and soldiers. Soldiers' rotational duties, traditionally involving diverse locations and separation from families, may explain the comparable views between these groups. Both soldiers and civilians engaging in remote or hybrid work generally expressed positive perceptions about the ability of remote work to enhance equality. This aligns with Kähkönen's (2024) findings that remote work contributes to balancing professional and family life.

H3: Specifically, remote workers believe that allowing individuals to agree on the amount of remote work based on personal needs would promote equality. *Conclusion: supported.* The findings confirm that remote and hybrid workers significantly favour individual agreements over rigid limitations, consistent with Kähkönen's (2024) observations. Flexible arrangements may help employees consider job opportunities without the burden of lengthy commutes or high relocation costs, thus promoting perceived equity. Restrictive policies, such as a maximum of 12 remote workdays per month, were viewed as artificial constraints that fail to address individual needs. Allowing flexibility could encourage employees to pursue positions they might otherwise avoid due to logistical challenges.

It was also hypothesised that, particularly, those who work solely on-site would believe that equity is promoted by a strictly regulated maximum number of remote-working days that is the same for everyone (H4). *Conclusion: rejected.* This study found that individual agreements were more strongly supported across groups, especially among men and soldiers. Although the groups mostly preferred individual remote work agreements, a statistically significant difference was found between women and men. Civilian women working on-site in the office formed the only group that favoured a limited, uniform amount of remote work over individual agreements. Men (also civilians) clearly preferred individual agreements. This is a very interesting new finding, suggesting a potential link between job roles, gender, and perceptions of equity. These contrasts highlight also the complexity of balancing organisational policies and employee preferences. Future qualitative research could explore the reasons behind these differences in depth.

Gender and equity considerations

Gender-related differences in the perception of equality merit further attention. While the Prime Minister's Office ([Mesiäislehto *et al.*, 2022](#)) noted that women were less likely to perceive workplace gender equality during the COVID-19 pandemic, structural issues, such as role-specific compensation rather than remote work itself, were identified as contributing factors. [López-Igual and Rodríguez-Modroño \(2020\)](#) noted that women were underrepresented among remote workers in Europe before the COVID-19 pandemic, and studying such details would be necessary. This study also found notable gender differences in attitudes towards remote work policies. Future research could explore whether these differences are tied to structural inequalities or perceptions about the role of remote work in workplace equity.

It becomes apparent that gender-related differences in attitude towards remote work are influenced by broader structural issues within organisations. For example, [Karjalainen \(2021\)](#) found that the frameworks, content, and conditions of work can become gendered in remote work settings. In the military, a hierarchical and role-specific environment, these gendered perceptions may be more pronounced. Women, for instance, may emphasise stricter boundaries around remote work, potentially due to the need to assert clear distinctions between work and personal life in a context where they might already feel marginalised or less represented. This need for clear lines can be seen as a way to advocate for gender equity, ensuring that work expectations do not disproportionately affect them.

On the other hand, men might be more inclined to negotiate remote work flexibility with supervisors, potentially because they are more comfortable navigating within the military's structure, where relationships with superiors are often the most flexible ones. This dynamic reflects how gendered experiences of workplace equity and structural inequalities could influence remote work policies, with women tending towards more formalised and rigid frameworks, while men may prefer greater autonomy in decision-making regarding remote work. In the Finnish Defence Forces, remote work is not supposed to influence negatively reward and promotion opportunities ([Kähkönen, 2024](#)). However, gendered suspicions may arise, possibly leading women to support restrictions that would apply equally to everyone.

Practical implications

The findings emphasise the importance of tailored, flexible remote work policies to address diverse employee needs while promoting equity. Human resource management can play a key role in implementing evidence-based changes, ensuring consistency and alignment with organisational goals. The broader implications of remote work on organisational culture, career development, and job opportunities should also be considered. Proactive communication and equitable access to resources are essential to ensure that policies do not inadvertently reinforce existing inequalities. [Kähkönen \(2024\)](#) found that remote work can affect organisational culture and work policies. Similarly, this study highlights the actions of human resource management based on scientific research findings to promote equality in these practices.

Remote work arrangements can also be challenging to manage for those responsible for organisations' information security, but security must be ensured even when working from home ([Kähkönen and Huhtinen, 2024](#)). Flexible work arrangements may be developed, and alternatives should be offered to those who handle numerous classified materials in

their work. One option is decentralised working, where personnel work partially from the Finnish Defence Forces facility nearest to their home. Opportunities like these would help to better integrate work and leisure time. Currently, many soldiers, in particular, drive for several hours a week between their home and the defence forces office located in a different town. After joining NATO, the amount of official work conducted during trips has increased among Finnish soldiers, and the information security aspects of remote work practices require overall attention and revised operating procedures.

Future research directions

To build on this study and research findings, future studies could (1) conduct qualitative research to explore employees' subjective experiences with remote work and equity in different organisational contexts, (2) undertake international comparisons to examine how the impact of remote work on equality varies across countries and industries, and (3) use statistical analyses to assess group-specific differences and further investigate how remote work affects career development and workplace equity across various demographic and organisational groups. By integrating qualitative and quantitative methods, future research can provide a more nuanced understanding of the role of remote work in promoting workplace equality. Although flexible work arrangements have been studied previously, research on the effects of remote work, particularly in military organisations, has been relatively limited. Before the COVID-19 pandemic, at least in Finnish Defence Forces, remote work was not particularly common or widespread, and there was scepticism, even resistance to change, regarding remote work. Attitudes have gradually shifted, and it is important to develop various forms of flexible work and further explore the topic in a comprehensive manner.

Funding

This research received no external funding.

Data availability statement

Data is contained within the article or in supplementary material.

Disclosure statement

No potential conflict of interest was reported by the author. The author read and agreed to the published version of the manuscript.

References

- Bailey, D.E. and Kurland, N.B.** (2002) 'A review of telework research: Findings, new directions, and lessons for the study of modern work', *Journal of Organizational Behavior*, 23(4), pp. 383–400. doi: [10.1002/job.144](https://doi.org/10.1002/job.144).
- Di Martino, V. and Wirth, L.** (1990) 'Telework: A new way of working and living', *International Labour Review*, 129(5), pp. 529–554.
- Finlex, the Ministry of Justice, Finland** (1986) *Act on equality between women and men (609/1986)*. Available at: <https://www.finlex.fi/fi/laki/ajantasa/1986/19860609> (Accessed: 10 August 2024).
- Finlex, the Ministry of Justice, Finland** (2014) *Non-Discrimination Act (1325/2014)*. Available at: <https://www.finlex.fi/fi/laki/alkup/2014/20141325> (Accessed: 10 August 2024).
- Finnish Defence Forces** (2023) *Finnish Defence Forces personnel report 2023*. Available at: <https://puolustusvoimat.fi/asiointi/aineistot/henkilostotilinpaaotokset> (Accessed: 10 August 2024).

Finnish Defence Forces (2024) *Equality and gender equality in the Finnish Defence Forces*. Available at: <https://puolustusvoimat.fi/en/equality-gender-equality-in-the-finnish-defence-forces> (Accessed: 10 August 2024).

Golden, T. (2006) 'Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions', *Journal of Vocational Behavior*, 69(1), pp. 176–187. doi: [10.1016/j.jvb.2006.02.003](https://doi.org/10.1016/j.jvb.2006.02.003).

Kähkönen, T. (2023a) 'Puolustusvoimien hybridi työntekijöiden työtyytyväisyys', *Työpoliittinen aikakauskirja*, 66(4), pp. 43–56.

Kähkönen, T. (2023b) 'Remote work during the COVID-19 pandemic: Identification of working life impacts, employees' data protection abilities and trust outcomes', *Journal of Organizational Change Management*, 36(3), pp. 472–492. doi: [10.1108/JOCM-06-2022-0179](https://doi.org/10.1108/JOCM-06-2022-0179).

Kähkönen, T. (2023c) 'Katsaus työntekijöiden etätyökokemuksiin Covid-19 pandemian aikana', *Työn Tuuli*, 32(2), pp. 34–41.

Kähkönen, T. (2024) 'Remote work in the Finnish Defence Forces: Employees' experiences of changes in organisational culture', *Security and Defence Quarterly*, 48(4), pp. 1–18. doi: [10.35467/sdq/176071](https://doi.org/10.35467/sdq/176071).

Kähkönen, T. and Huhtinen, A.-M. (2024) 'Experiences of Finnish Defence Forces personnel of remote work-related requirements – Towards self-efficacy and systematic measurement, leadership training and feedback practice', *Tiede ja Ase*, 81(1), pp. 35–63.

Karjalainen, M. (2021) 'Työn rajojen hämärtyminen koronapandemian aikana: etätyö ja sukupuoli', *Työelämän Tutkimus*, 19(4), pp. 546–569.

Kooli, C. (2022) 'Challenges of working from home during the COVID-19 pandemic for women in the UAE', *Journal of Public Affairs*, 23(1), pp. 1–13. doi: [10.1002/pa.2829](https://doi.org/10.1002/pa.2829).

López-Igual, P. and Rodríguez-Modroño, P. (2020) 'Who is teleworking and where from?: Exploring the main determinants of telework in Europe', *Sustainability*, 12(21), pp. 87–97. doi: [10.3390/su12218797](https://doi.org/10.3390/su12218797)

Mello, J.A. (2015) *Strategic human resource management*. Boston: CENGAGE Learning.

Mesiäislehto, M., Elomäki, A., Kivipelto, M., Närvi, J., Räsänen, T., Sutela, H. and Kärkkäinen, E. (2022) *Koronakriisin vaikutukset sukupuolten tasa-arvoon Suomessa*, Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja 2022:46 [Government Research and Research Publication Series 2022:46]. Helsinki: Valtioneuvoston kanslia [Prime Minister's Office].

Milasi, S., Fernandez-Macias, E. and Gonzales-Vazquez, I. (2020) *Telework in the EU before and after the COVID-19: Where we were. Where we head to*. Policy brief for the European Commission. Available at: https://ec.europa.eu/jrc/sites/jrcsh/files/jrc120945_policy_brief_-_covid_and_telework_final.pdf. (Accessed: 10 August 2024).

Van der Lippe, T., Van Breeschoten, L. and Van Hek, M. (2018) 'Organizational work-life policies and the gender wage gap in European workplaces', *Work and Occupations*, 46(2), pp. 111–148. doi: [10.1177/0730888418791652](https://doi.org/10.1177/0730888418791652).