INSTITUTE FOR EMPLOYMENT RESEARCH
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IAB-DISCUSSION PAPER

Articles on labour market issues

4|2021 Gender Differences in Reduced Well-being during the COVID-19 Pandemic – the Role of Working Conditions

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ISSN 2195-2663

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Mit der Reihe „IAB-Discussion Paper“ will das Forschungsinstitut der Bundesagentur für Arbeit den Dialog mit der externen Wissenschaft intensivieren. Durch die rasche Verbreitung von Forschungsergebnissen über das Internet soll noch vor Drucklegung Kritik angeregt und Qualität gesichert werden.

The “IAB Discussion Paper” is published by the research institute of the German Federal Employment Agency in order to intensify the dialogue with the scientific community. The prompt publication of the latest research results via the internet intends to stimulate criticism and to ensure research quality at an early stage before printing.

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Abstract

The COVID-19 pandemic has had very different impacts on the employment and family work conditions of men and women. Thus, it might have jeopardised the slow and hard-won reduction of gender inequalities in the division of labour achieved in recent decades. Using data from the National Educational Panel Study (NEPS) and its supplementary COVID-19 web survey for Germany, we investigate the relationship between working conditions and gender differences in subjective well-being during the first months of the pandemic. Therefore, we systematically consider the household context by distinguishing between adults with and without young children. The results from multivariate regression models accounting for pre-corona satisfaction reveal a decline in all respondents' life satisfaction, particularly among women and mothers with young children. However, the greater reduction in women's well-being cannot be linked to systematic differences in working conditions throughout the pandemic. Kitagawa-Oaxaca-Blinder counterfactual decompositions confirm this conclusion. However, further robustness checks suggest that women's societal concerns and greater loneliness partly explain the remaining gender differences during the first months of the crisis. From a general perspective, our results suggest important gender differences in social life and psychological distress in spring 2020, which are likely to become more pronounced as the crisis unfolds.

Zusammenfassung

Die Covid-19-Pandemie hat sich sehr unterschiedlich auf die Bedingungen der Beschäftigung und der Familienarbeit von Männern und Frauen ausgewirkt. Damit könnte sie den in den letzten Jahrzehnten langsam und mühsam erreichten Abbau der geschlechtsspezifischen Ungleichheiten in der familiären Arbeitsteilung gefährden. Mit Daten des Nationalen Bildungspanels (NEPS) und der Online durchgeführten Covid-19-Zusatzbefragung für Deutschland untersuchen wir den Zusammenhang zwischen Arbeitsbedingungen und Geschlechterunterschieden im subjektiven Wohlbefinden während der ersten Monate der Pandemie. Dabei berücksichtigen wir systematisch den Haushaltskontext, indem wir zwischen Erwachsenen mit und ohne kleine Kinder unterscheiden. Die Ergebnisse aus multivariaten Regressionsmodellen, die die Zufriedenheit vor der Pandemie berücksichtigen, zeigen einen Rückgang der Lebenszufriedenheit bei allen Befragten, insbesondere bei Frauen und Müttern mit kleinen Kindern. Der stärkere Rückgang des Wohlbefindens von Frauen kann jedoch nicht mit systematischen Unterschieden in den Arbeitsbedingungen während der Pandemie in Verbindung gebracht werden. Kitagawa-Oaxaca-Blinder kontrafaktische Dekompositionen bestätigen diesen Befund. Weitere Robustness-Checks deuten darauf hin, dass die verbleibenden geschlechtsspezifischen Unterschiede in den ersten Monaten der Krise zum Teil durch gesellschaftliche Sorgen und größere Einsamkeit der Frauen erklärt werden. Allgemein betrachtet deuten unsere Ergebnisse auf wichtige geschlechtsspezifische Unterschiede im sozialen Leben und in der psychischen Belastung im Frühjahr 2020 hin, die sich im weiteren Verlauf der Krise wahrscheinlich noch verstärken werden.

JEL classification

I31, J22, J28, J13

Keywords

Coronavirus crisis, employment, gender inequalities, mental health, NEPS-C

Acknowledgements

From 2008 to 2013, NEPS data was collected as part of the Framework Program for the Promotion of Empirical Educational Research, funded by the German Federal Ministry of Education and Research (BMBF). As of 2014, NEPS is carried out by the Leibniz Institute for Educational Trajectories (LIfBi) at the University of Bamberg, Germany, in cooperation with a nationwide network. Among others, the data set contains detailed longitudinal information on individuals' educational careers and other individual and household characteristics.

1 Introduction

As the COVID-19 pandemic spread in spring 2020, most countries implemented restrictions on social and economic activities. Social distancing measures, including the closure of whole economic sectors, schools, and childcare facilities, presented numerous challenges and stressors. Early studies suggest that these far-reaching changes created substantial inequalities in life circumstances that have reduced average subjective well-being and mental health (Adams-Prassl et al. 2020b; Brodeur et al. 2021). However, not all individuals have been affected equally. On the contrary, the pandemic's stressors may vary systematically across social groups, thereby reinforcing existing social inequalities and leading to an asymmetric impact of the crisis, with the most vulnerable groups being hit hardest (e.g., Kleinert et al. 2020).

Most recent research suggests that gender inequalities in paid and unpaid work have widened throughout the pandemic, likely leading to substantial gender differences in well-being. Empirical studies indicate systematic gender differences in pandemic-related changes in working conditions (e.g., Möhring et al. 2020a) and family work (e.g., Zoch et al. 2020). According to the stress process model (Pearlin 1989), these increased gender inequalities involve new stressors that, against the background of disparities in resources to cope with them, should result in gender differences in well-being throughout the pandemic. However, empirical evidence is mostly based on cross-sectional data and is thus unable to analyse pandemic-related changes in an individual's well-being (Bünning et al. 2020; Czymara et al. 2021; Huebener et al. 2021). Moreover, previous studies concentrated mainly on overall changes (e.g., Liebig 2020; O'Connor et al. 2020) or on altered well-being of specific subgroups such as mothers and fathers (e.g., Feng/Savani 2020; Möhring et al. 2020b) thus missing explanations for general gender gaps in altered well-being. To date, working conditions have received little attention, but gender inequalities in the labour market may drive differences in well-being during the COVID-19 pandemic.

We extend the literature on gender inequalities during the pandemic and investigate how working conditions affected adults' well-being in spring 2020 with large-scale panel data from Germany. We contribute to the existing literature by (i) examining gender differences in subjective well-being measured as satisfaction with life overall, work and family life; (ii) analysing gender differences in satisfaction with panel data that also include sufficient information on pre-crisis satisfaction and individual characteristics; and (iii) investigating whether differences in working conditions during the pandemic are related to gender disparities in altered well-being. We focus on two groups: (a) women and men without young children and (b) women and men with at least one child under 14 years of age in the household. We extend previous studies by investigating the role of a wide range of critical working conditions affected by the crisis, including employment in a system-relevant occupation, self-employment, changes in working hours, remote work, and income changes. By simultaneously accounting for individual household composition, we also contribute to the existing literature on the social effects of the COVID-19 pandemic and its potential to jeopardise the slow and hard-won reduction in gender inequalities in the division of labour.

Studying pandemic-related changes in well-being is essential, as research has primarily focused on the crisis's societal and economic consequences. However, more broadly, subjective well-being

is closely related to mental health. The latter is an essential aspect of life course health development and economic productivity (Headey et al. 1993; Oswald et al. 2015) and thus impacts the pandemic's general economic and social costs (Bahn et al. 2020). Understanding the relevance and extent of pandemic-related changes in well-being provides important insights for policymakers to design target group-specific pandemic control measures or provide adequate support for those with substantial declines in well-being.

Germany is particularly suitable to study well-being during the COVID-19 crisis. Given the relatively few COVID-19 infections in spring 2020, Germany can be placed in the midfield of rigorous pandemic control measures.[1] Therefore, findings on altered well-being might be more generalisable than results from countries with very high infection and death rates and consequently severe restrictions, such as France or Spain, or countries with a complete lack of measures, such as Sweden or the UK. Moreover, Germany provides an excellent case study to investigate gender differences in well-being during the pandemic. Despite having more employment-oriented family policies and constantly rising female employment rates, Germany still represents a modernised male breadwinner regime with persistent inequalities in paid and unpaid work. Therefore, the German labour market is characterised by a substantial gender pay gap and strongly gender-segregated occupational and sectoral structures (Pettit/Hook 2009). Given the asymmetric impact of the crisis, with some sectors being hit harder than others, these gender differences in employment and occupations have resulted in gender-specific changes in working conditions during the pandemic (Möhring et al. 2020a). Similar to other countries, women in Germany were also more burdened by closed schools and childcare facilities than men (Zoch et al. 2020). This initial situation suggests that subjective well-being has changed very differently for men and women in Germany during the COVID-19 pandemic.

2 Gendered Working Conditions and Subjective Well-Being

2.1 The Connection between Working Conditions and Subjective Well-being

Among the most critical and universal factors for subjective well-being (SWB) are employment and working conditions. Prior research on the importance of employment for SWB particularly emphasises the economic independence and the social approval provided by work. Conversely, unemployment and job insecurity lead to reduced well-being and mental health (Paul/Moser 2009; Witte 2005).

Although employment is generally positively associated with SWB, research has identified central workplace stress factors, such as high job demand (Nieuwenhuijsen et al. 2010) or work-schedule

[1] The first infections occurred at the end of January and then spread throughout Germany. In mid-March, schools and childcare facilities were closed nationwide. From the end of March to mid-April, non-supply-relevant stores and restaurants were closed, and social distancing measures were implemented for households. However, individuals could always leave the house, do sports and meet a significantly reduced number of others. Schools and childcare facilities opened slowly and on an irregular basis from the beginning of May.

instability (e.g., Schneider/Harknett 2019). Conversely, factors such as work autonomy (Sonnentag 2015) or remote work (Wheatley 2017) provide beneficial working conditions. However, research also suggests heterogeneous effects of working conditions on SWB, depending on the group of employees considered, contextual factors, and the observed domain of satisfaction (Nomaguchi/Milkie 2020; Robone et al. 2011).

Gender differences in the relationship between working conditions and SWB may emerge through compositional differences in the labour market or gender-specific relationships between specific working conditions and well-being. Compositional differences in working conditions are related to the fact that men and women systematically differ in their distribution over horizontal and vertical labour market positions: In Germany, e.g., the care and education sector are women's domains, while men are overrepresented in technical and manufacturing occupations as well as in higher hierarchical positions (Pettit/Hook 2009). Moreover, men are more likely to be self-employed (Federal Statistical Office 2019) and typically work more extra hours, while women show higher part-time rates to reconcile work and family life (Pettit/Hook 2009). Although official statistics suggest only small gender differences in working remotely (Federal Statistical Office 2021) most recent research indicates that, given technical possibilities, women are less likely to be allowed to work remotely than men (Lott/Abendroth 2020).

As men and women face different challenges in everyday life and are exposed to different social roles and expectations, prevalent working conditions should affect the SWB of men and women differently. More broadly, research highlights that employment seems to be more relevant for men's than women's SWB (e.g., Paul/Moser 2009). However, Nomaguchi and Milkie (2020) note that context is always highly relevant for group-specific differences in SWB. Similarly, the literature also suggests gendered effects of working conditions on SWB, such as working hours (Beham et al. 2019; Schröder 2020) or remote work (Reuschke 2019).

2.2 Working Conditions and SWB during the COVID-19 Pandemic

Overall, research indicates that the COVID-19 pandemic and related measures to contain the virus decreased mental health and well-being (Huebener et al. 2021; Möhring et al. 2020b) for various reasons, such as illness, loneliness, duty overload or worries and concerns triggered by the crisis's multiple threats.

Drawing on previous literature on SWB, the economic downturn and changes in the work environment are presumed to be among the most critical factors affecting SWB during the coronavirus crisis. In Germany, domestic and export demand also decreased considerably as a result of the lockdown, altering working conditions for many in spring 2020 (Anger et al. 2020). To buffer the economic shock, Germany made particular use of a specific labour market policy: short-time work (*Kurzarbeit*) (Adams-Prassl et al. 2020b). This measure is intended to reduce labour costs for firms with reduced working hours, with workers receiving wage compensation from the government of up to 67 percent of their previous income. In May 2020, 20 percent of all dependent employees were exposed to short-time work (Kruppe/Osiander 2020). Moreover, remote work expanded considerably across Germany. Conversely, employees in so-called system-relevant occupations, such as in the health or retail sector, often worked longer hours and were less likely to work remotely than employees in non-system-relevant occupations (Bünning et al. 2020). Another group under

particular pressure and often facing precarious income situations during the crisis were self-employed individuals. Self-employed individuals were more often forced to work fewer hours or stop working entirely than employees but were poorly protected against income losses (Bünning et al. 2020). Overall, previous research highlights substantial heterogeneity in pandemic-related employment risks and working conditions across different occupations and sectors, suggesting an asymmetric impact of the COVID-19 pandemic on SWB.

With the widely varying consequences for sectors and occupations and against the backdrop of strong gender segregation in occupations and sectors, early studies on Germany also indicate substantial gender-specific labour market consequences of the pandemic (e.g., Bünning et al. 2020; Möhring et al. 2020a). In contrast to the more negative impact of previous economic crises on men, recent research on the COVID-19 crisis suggests stronger implications for women's employment (Alon et al. 2020; Hammerschmid et al. 2020). Under substantial occupational gender segregation, women were more likely to work in system-relevant occupations and thus experienced higher stress levels due to increased workload and working hours (Bahn et al. 2020). Moreover, women were less likely to be affected by short-time work (Anger et al. 2020) but more likely to be on (mostly unpaid) furlough than men (Möhring et al. 2020a). However, early studies also identify differences in coping resources, with women surprisingly being more likely than men to switch to remote work during the crisis (Frodermann et al. 2020; Möhring et al. 2020a).

The illustrated gender differences in pandemic-related working conditions are likely to affect the SWB of men and women differently. Indeed, early studies find different effects of the pandemic on the SWB of men and women (Adams-Prassl et al. 2020a; Bünning et al. 2020; Czymara et al. 2021; Etheridge/Spantig 2020; Feng/Savani 2020; Huebener et al. 2021; Liebig 2020; O'Connor et al. 2020; Zhou et al. 2020). However, research investigating the causes of these gender differences in altered well-being remains rare. Moreover, the existing studies often (a) focus on specific subgroups but fail to analyse general gender gaps (Feng/Savani 2020; Huebener et al. 2021; Möhring et al. 2020a) (b) lack pre-corona satisfaction measures for their respondents (Bünning et al. 2020; Czymara et al. 2021; Huebener et al. 2021) or (c) neglect central dimensions, such as working in a system-relevant occupation (Adams-Prassl et al. 2020a; Etheridge/Spantig 2020; Möhring et al. 2020a; Zhou et al. 2020). Therefore, we extend the literature and investigate the relevance of gender differences in SWB during the pandemic using panel data, concentrating on the relevance of workplace characteristics to explain the presumed gender differences in well-being.

2.3 Theoretical Explanations of Changes in SWB

In the sociological-oriented literature, SWB is defined as an individual's emotional responses to life circumstances, domain satisfaction and a global judgement of life satisfaction (Diener et al. 1999). Accordingly, life satisfaction represents an important dimension of mental health (Headey et al. 1993) that is highly dynamic and subject to both long-term changes and short-term fluctuations (Sonnentag 2015).

The framework of Pearlin's (1989) *stress process model* decomposes the factors and mechanisms influencing stress outcomes such as physical health, mental health, and SWB into stressors and resources (Nomaguchi/Milkie 2020). Accordingly, stressors refer to stress sources such as individuals' perceived difficulties in satisfying demands or normative roles. Stressors appear as long-term

chronic problems or major life events, causing changes and fluctuations in SWB. Conversely, resources include individual endowments such as physical objects, life conditions, personal characteristics such as mastery, resilience and energy (Peck 2020), and structural endowments such as social support from others, society, or government (Nomaguchi/Milkie 2020). Resources are necessary to cope with stressors because they buffer or intermediate the negative effects of stressors and thus might raise the level of SWB.

Transferred to the work context, factors influencing fluctuations and changes in SWB are job stressors, job and personal resources and factors at the interface of work and family (Sonnentag 2015). The effect of job stressors on SWB might be ambiguous; while insecure job conditions, unstable job features, a lack of autonomy and organisational support clearly decrease SWB, challenging stressors such as workload and time pressure seem to either enhance work engagement or fatigue and exhaustion (Schneider/Harknett 2019; Sonnentag 2015). Whether challenging job stressors increase or decrease SWB depends on job and personal resources such as the nonworking life, which also impacts perceived working conditions. Employees who, e.g., feel recovered in the morning, experience job stressors as less demanding. On the other hand, research has widely established that work-family conflicts reduce SWB (Nomaguchi/Milkie 2020; Sonnentag 2015).

Abrupt, pandemic-related changes in life and working conditions can be interpreted as a major life event associated with specific stressors in the workplace that vary substantially across subgroups. Following the presented studies, these include working in a system-relevant occupation with increased workload and time pressure as well as a higher risk of infection, pandemic-related increase in working hours or furlough, which is often accompanied by a loss of income. The self-employed are particularly affected and have less access to governmental support than dependent employees and therefore might experience more pandemic-related stressors due to financial shortfalls. Drawing on the stress process model, we presume these working conditions to be stressors and expect them to reduce SWB in the early months of the pandemic (*hypothesis 1*).

In contrast, due to the possibility of reducing working hours, reducing overtime or working from home to better balance different roles, such as increased domestic and care work, we consider these shifts in working conditions to be a resource. They offered workers an opportunity to remain employed during the lockdown while minimising their own and others' risk of contagion. Therefore, we assume such resources in the work context to decrease the negative effects of the pandemic on SWB (*hypothesis 2*).

Given the most recent literature on the asymmetric impact of the COVID-19 pandemic's multiple threats on various social groups, we can reasonably assume women and men to differ significantly in their SWB during the crisis. The gender gap is related to compositional differences between working women and men and gender-specific effects of individual stressors and resources. The gender gap in job stressors results from strong occupational gender segregation and the pandemic's asymmetric impact on these occupations and sectors. Hence, differences in working women's and men's composition should partly explain the gender gap in SWB. Additionally, job stressors and resources strongly interact at the interface between work and family life (Sonnentag 2015). For example, female homemakers report lower SWB than working women because employment is generally perceived as rewarding (Nomaguchi/Milkie 2020). However, time strains and work-life conflicts result in higher stress levels for dual-earner parents than for male-breadwinner arrangements (Pollmann-Schult 2014). Additionally, parental well-being strongly depends on the

availability of institutional childcare (Nomaguchi/Milkie 2020). As the closure of schools and childcare facilities eliminated this resource in spring 2020, the relation between job stressors and resources shifted strongly for parents and particularly mothers (Clark et al. 2020). Hence, specific working conditions affect women's and men's SWB differently, depending on their different contexts and roles (Batz/Tay 2018).

Taken together, the composition differences across working conditions and gender-specific effects of the respective working conditions should result in different SWB for women and men. We therefore assume that pandemic-related differences in working conditions explain large parts of the gender differences in SWB throughout the pandemic (*hypothesis 3*).

3 Data and Estimation Strategy

3.1 The National Education Panel Study

To examine the link between working conditions and SWB, we used data from two independent panel surveys of the German National Education Panel Study (NEPS). Starting in 2008, the annual NEPS provides longitudinal data on educational processes and returns to education throughout the lifespan (Blossfeld et al. 2011). According to their age and educational level, respondents are observed in six independent sub-studies, so-called *Starting Cohorts*, from early childhood to adulthood. Each Starting Cohort is surveyed with comparable question programs within each topic. To investigate adults' SWB, we combine data from two annually surveyed Starting Cohorts: NEPS-SC6 'Adults' and NEPS-SC5 'Highly Educated'. In 2009, NEPS-SC6 started with more than 17,100 individuals born 1944–1986 with different educational backgrounds. NEPS-SC5 has surveyed 17,900 young and highly educated individuals annually since 2010, who began a bachelor's degree in the fall of 2010 and had been working since then. By combining both studies, we examine how working conditions influence SWB during the pandemic among a sufficient number of adults and whether subgroups differ.

We combine the data from the regular NEPS waves with information from a supplementary COVID-19 web survey of all NEPS respondents conducted in spring 2020. A total of 2,678 adults from the last regular NEPS-SC6 wave and 2,859 adults from the last NEPS-SC5 wave participated in the additional COVID-19 web survey. This survey asked about the consequences of the COVID-19 pandemic, focusing on respondents' living and working conditions. We combine (1) the scientific use files of the two NEPS Starting Cohorts with (2) the recently collected but unpublished respective waves (NEPS-SC5 consortium data B140_C1 (conducted March–July 2019) and NEPS-SC6 consortium data B145_C1 (conducted September 2019–March 2020)) and with (3) the supplementary COVID-19 web survey (Corona_CAWI_C3, conducted May–June 2020).

Our balanced sample consists of all respondents participating in the COVID-19 web survey and one of the two previous waves. Thus, we can compare SWB during spring 2020 with the most recent pre-pandemic information. Since respondents' constant characteristics were not surveyed again in the web survey, we also built some of our control variables based on information from regular NEPS waves. Being interested in the impact of working conditions, we excluded respondents older than 65 (N=594), in education or vocational training (N=239), and with inactive or unknown labour

force status before the pandemic (N=601). Our final sample consists of 2,201 women and 1,669 men (1,558 respondents from NEPS-SC6 and 2,312 from NEPS-SC5).

3.2 Estimation Strategy

Our analyses followed a two-step procedure. First, we examined the link between working conditions and individual-level changes in SWB with multivariate linear regression models. The baseline models included only the indicator for gender. We then included respondents' SWB before the COVID-19 pandemic and thus examined changes in well-being in all further modelling steps. Second, to investigate whether gender differences in SWB were related to sample composition, we included individual- and household-level controls. Finally, we included various indicators of working conditions during the pandemic. To investigate gender-specific patterns in the associations between job characteristics and respondents' changes in well-being, we re-estimated all models with interaction effects for gender and working conditions and as separate models for men and women.

In a second step, we applied a two-fold Kitagawa-Oaxaca-Blinder (KOB) counterfactual decomposition (Jann 2008) to further investigate gender differences in mean satisfaction. We compute a twofold decomposition using the coefficients from males as the reference coefficients. The decomposition method divides the satisfaction differential into two parts. The first part is explained by compositional differences of men and women (explained part/endowment or composition effect). Hence, we investigate the proportion of the part of the gender gap that can be attributed to gender differences in characteristics. The second part subsumes the observed differences due to unobserved predictors and differences in returns between men and women (unexplained part/return effect). In this way, any remaining proportion of the gender gap is attributed to differences in the formation of satisfaction, i.e., how satisfaction is linked to observed and unobserved characteristics. Finally, we conducted several robustness checks to thoroughly investigate any remaining gender differences in SWB.

3.3 Measures

We used three well-established items distinguishing the following three domains of SWB: (1) overall life satisfaction and satisfaction with (2) working life and (3) family life (Table 1).[2] Answers to all questions were measured on an 11-point Likert scale, ranging from 0 'completely unsatisfied' to 10 'completely satisfied' so that higher values indicate higher well-being.[3] We used the indicators as quasi-metrics in linear regressions because, according to previous research, the results are comparable to models with an ordered categorical variable (Ferrer-i-Carbonell/Frijters 2004). To facilitate comparability of the effect sizes, we standardised the dependent variables.

[2] For overall life satisfaction, the question was 'All in all, how satisfied are you with your life at the moment?'. To capture domain-specific satisfaction, respondents were asked 'How satisfied are you with your work/family life?'.

[3] Table A1 in the Online Appendix shows moderate correlation coefficients between the three domains (.24 to .54).

Table 1: Description of dependent variables (weighted).

	respondents without under-14-years old						respondents with under-14-years old					
	men			women			fathers			mothers		
item	mean	SD	N	mean	SD	N	mean	SD	N	mean	SD	N
satisfaction with life												
pre-corona	7.88	0.94	1336	7.91	1.07	1843	8.23	0.95	333	7.98	1.14	358
during corona	7.24	1.60	1336	7.28	1.58	1843	7.71	1.45	333	6.83	1.59	358
change	-.64***	1.5	1336	-.62***	1.51	1843	-.52***	1.4	333	-1.16***	1.57	358
satisfaction with work												
pre-corona	7.41	1.68	1303	7.44	1.66	1791	7.38	1.75	330	7.31	1.41	331
during corona	7.01	1.95	1303	6.90	2.02	1791	7.00	1.87	330	7.29	1.88	331
change	-.40***	1.91	1303	-.54***	1.97	1791	-.38***	2.23	330	-.03***	2.17	331
satisfaction with family												
pre-corona	8.08	1.39	1335	8.25	1.44	1838	8.66	1.22	333	8.46	1.40	358
during corona	7.31	1.95	1335	7.49	2.04	1838	8.22	1.69	333	7.51	1.83	358
change	-.77	1.55	1335	-.76	1.85	1838	-.45	1.53	333	-.95	1.41	358

Source: NEPS SC6+SC5, weighted.

To account for important differences in other potential stressors and resources due to gendered roles, particularly in the family sphere, our main independent variable distinguished among 4 groups of respondents: (1) men (reference category) and (2) women without young children and (3) men and (4) women with at least one child under 14 years of age in the household. Although the first two groups could also have older children living both inside and outside the household, we refer to the men and women with young children as mothers and fathers below for a clear distinction in the text.

Our full models included the following individual-level control variables (see Table A2 and Table A3 in the Online Appendix): age (linear and quadratic terms), educational attainment, migration background, single household, number of household members, pre-crisis part-time employment (ref. full-time), pre-crisis log household income (in euros) and residence in East Germany. We operationalise potential pandemic-related stressors or resources from the work context as follows: pandemic-related changes in working hours, working in a system-relevant occupation, working remotely, self-employment and a dummy variable indicating a reduction in household income of more than 10 percent during the months of the pandemic. Regarding altered working hours, respondents reported whether they worked the same number of hours, more hours, or fewer hours than before the crisis or currently not at all. If respondents reduced their working hours, they were asked to indicate why. We therefore distinguish reduced working hours in the context of short-time work from other reasons, such as reducing overtime or taking unpaid time off. The idea behind distinguishing between these two types is that short-time work is not decided voluntarily by the respondent but implemented by the firm. A detailed overview of the construction of the variables is included in the Online Appendix (Table A4).

4 Results

4.1 Descriptive Findings

Table 1 presents the weighted means of the three variables capturing satisfaction with overall life, work, and family life before and during the COVID-19 pandemic. During the pandemic, all respondents showed lower values for all three satisfaction domains, i.e., less satisfaction with the respective domain than before the pandemic. These differences were statistically significant (t-test, p=0.05). Across all four groups, satisfaction with family life was highest before (8.08 to 8.66) and during the crisis (7.31 to 8.22). Conversely, satisfaction with work was lowest before (7.31 to 7.44) and during the COVID-19 pandemic (6.90 to 7.29).

Although respondents' SWB was reduced in all three domains during the first months of the pandemic, changes were particularly strong for satisfaction with overall life (-.52 to -1.16) and with family life (-.45 to -.95) compared to smaller changes for work (-.03 to -.54). Moreover, changes were not uniformly characterised by gender differences but varied by dimension and parenthood status. Except for satisfaction with work, mothers' satisfaction decreased the most. Conversely, fathers showed the smallest decrease in well-being for satisfaction with life and work. Surprisingly, men and women without children under 14 in the household often differed little in their altered well-being. Comparing pre-crisis satisfaction with satisfaction during the crises separately for men and women revealed, however, no statistically significant gender differences in the absolute value of reduced satisfaction.

Furthermore, our subsamples of men and women differed considerably in composition (see Table A2 in the Online Appendix): Men were slightly older, lived in larger households and reported higher household income. Educational attainment differed more for respondents without young children, with men being more likely to have lower educational levels. Women, particularly those with young children, were more likely to work part-time before the crisis and to work in a system-relevant occupation. Considering further potential stressors, short-time work and a reduction in income differed little according to gender. Conversely, men without children were more likely to be self-employed. For parents with young children, no such gender difference was observed for self-employment. Considering resources, more women reduced their working hours, whereas remote work differed only slightly between men and women. In fact, among those without young children, women were more likely to work remotely. Overall, the descriptive results suggested that the observed gender differences in SWB before and during the COVID-19 pandemic may partly result from compositional differences in the individual characteristics and working conditions of women and men.

4.2 Multivariate Findings

Table 2 presents the estimates from item-specific multivariate linear regression models. Baseline models without further control variables (M1) indicate that during the first months of the pandemic, women and mothers with young children were less satisfied with their lives than men. However, the differences were only statistically significant for mothers. For satisfaction with work, group differences were small and overall not statistically significant. Surprisingly, fathers and

Table 2: Relationship between work characteristics and satisfaction for three domains (OLS regression).

	Life satisfaction				Satisfaction with work				Satisfaction with family			
	M1	M2	M3	M4	M1	M2	M3	M4	M1	M2	M3	M4
female (ref: male)	-0.06	-0.03	-0.07*	-0.07*	-0.05	-0.03	-0.04	-0.05	0.05	0.00	0.00	0.00
	(0.04)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)
father	0.05	-0.04	-0.02	-0.03	-0.02	-0.06	-0.05	-0.07	0.21***	0.04	0.00	0.00
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
mother	-0.12*	-0.19***	-0.15*	-0.15*	0.02	0.01	0.04	0.03	0.20***	0.01	-0.01	0.00
	(0.06)	(0.05)	(0.07)	(0.07)	(0.06)	(0.06)	(0.07)	(0.07)	(0.06)	(0.05)	(0.06)	(0.06)
pre-corona satisfaction		0.37***	0.35***	0.35***		0.24***	0.23***	0.23***		0.36***	0.34***	0.34***
		(0.02)	(0.02)	(0.02)		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
short-time work				-0.16**				-0.31***				-0.11*
				(0.05)				(0.06)				(0.05)
working hours -				-0.02				0.01				0.05
				(0.04)				(0.04)				(0.04)
working hours +				-0.08*				-0.03				0.00
				(0.04)				(0.04)				(0.03)
system-relevant				0.05+				0.07*				-0.06*
				(0.03)				(0.03)				(0.03)
remote work				0.09**				0.09**				0.05
				(0.03)				(0.03)				(0.03)
remote work missing				-0.12				-0.33***				-0.03
				(0.08)				(0.09)				(0.07)
self-employed				-0.14*				-0.08				-0.05
				(0.07)				(0.07)				(0.07)
income reduced in crisis				-0.14***				-0.10*				-0.07+
				(0.04)				(0.04)				(0.04)
_cons	0.04	-2.92***	-1.53***	-1.79***	0.03	-1.73***	-2.11***	-2.20***	-0.06*	-3.00***	-2.82***	-2.94***
	(0.03)	(0.13)	(0.41)	(0.42)	(0.03)	(0.10)	(0.42)	(0.43)	(0.03)	(0.09)	(0.38)	(0.38)
Control variables included	x	x			x	x			x	x		
N	3871	3871	3871	3871	3756	3756	3756	3756	3865	3865	3865	3865
r2_a	0.00	0.16	0.20	0.21	-0.00	0.15	0.15	0.18	0.00	0.30	0.31	0.31
p	0.06	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Standard errors in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. M3 and M4 include the full set of control variables: age, age², education, migration background, pre-crises employment, pre-crises log-household income, single household, number household members, East Germany.

Source: NEPS SC5 + SC6.

mothers reported significantly higher satisfaction scores for family life than those reported by men without young children.

Additionally, we compared adjusted predictions of satisfaction in spring 2020 in several group comparisons. The tests confirmed statistically significantly lower life satisfaction for mothers and women than for men (not presented). Comparing each group with the overall sample mean further confirmed that women with younger children in particular reported lower life satisfaction than the rest of the sample (p=.05; see Figure A1 in the Online Appendix). In addition, mothers also reported lower satisfaction scores than fathers (p=.04), whereas the difference between men and women without young children was very small (p=.06, not shown). Overall, women and mothers reported life satisfaction levels that were more equal to each other compared to more similar scores of men and fathers. Similar tests revealed no statistically significant group differences for satisfaction with work. For satisfaction with family life, the results confirmed a statistically significant lower satisfaction for men and women and higher levels for mothers compared to the sample mean. In sum, respondents without young children reported levels of family satisfaction that were more equal to each other and statistically significantly different from the more similar satisfaction levels of fathers and mothers with young children.

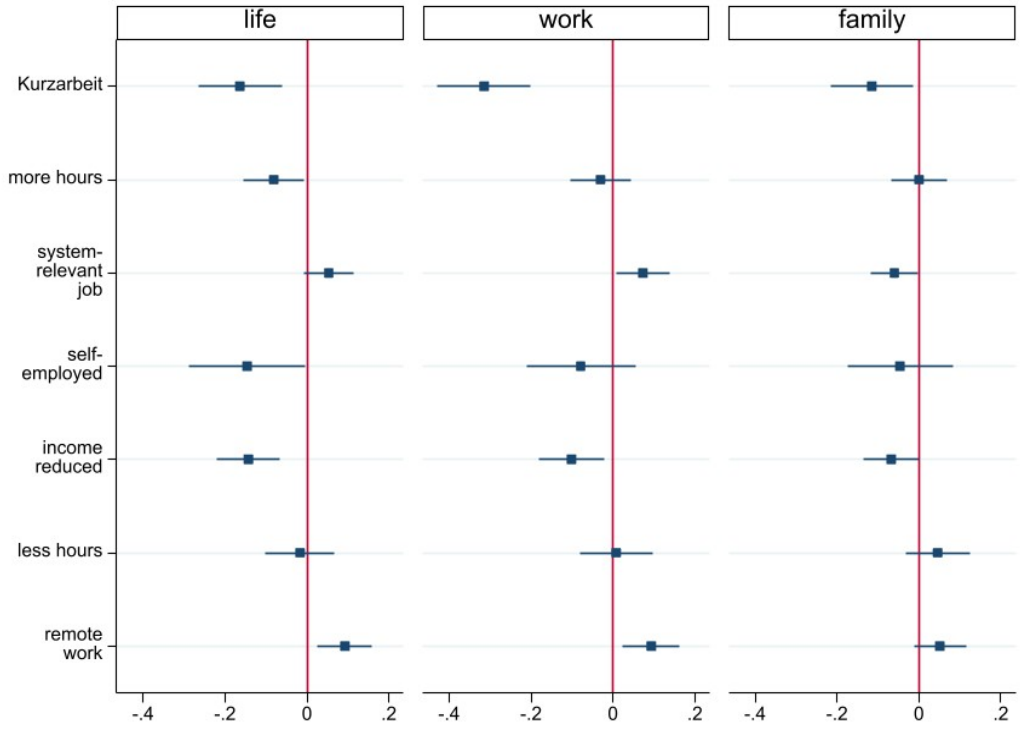
Models M2 to M4 in Table 2 present the results from stepwise regression models with further control variables. First, we included respondents' satisfaction before the COVID-19 pandemic (M2); hence, the coefficients now indicate the relationship with an independent variable and change in satisfaction, that is, the difference between the two time points (M2 to M4). For all three dimensions, pre-crisis satisfaction levels were significantly positively associated with respondents' well-being during the pandemic. For satisfaction with family, the substantial differences between respondents with young children compared to men were mostly explained and became statistically insignificant. Accounting for compositional differences at the individual and household levels (M3) further increased the difference in life satisfaction between women and men without younger children, which became statistically significant. Finally, including the set of working conditions did not alter the observed relationships for each dimension (M4).

Figure 1 graphically presents the estimates for the associations between the individual working conditions and respondents' satisfaction from the multivariate linear regression models with full controls by plotting point estimates and their 95 percent confidence intervals.[4] Intervals crossing the vertical 0-line indicate statistically insignificant effects. For all estimated models, the effects, standard errors, number of observations and total number of individuals are reported in Table 2. Regarding potential stressors during the COVID-19 pandemic, short-time work was associated with the strongest decline in domain-specific satisfaction, particularly for life and work. Across all domains, increased working hours were linked to decreased satisfaction; however, the results indicated a statistically significant relationship only for life satisfaction. Surprisingly, respondents working in a system-relevant occupation indicated increased satisfaction, with statistically significant associations for work and somewhat smaller effects for life satisfaction. Conversely, working in a system-relevant occupation significantly reduced satisfaction with family life. Finally, a reduction of more than 10 percent of pre-crisis household income was statistically significantly associated with lower satisfaction in all domains. Thus, the results mostly confirmed hypothesis 1, which argues that stressors in the form of working conditions reduced SWB during the pandemic.

[4] Figure A2 in the Online Appendix shows the results for models that include the working conditions stepwise. There are only minor deviations from the presented full models with all variables.

Conversely, the results for the potential working conditions to cope with increased burdens revealed ambiguous results. Reduced working hours were only related to small increases in satisfaction with family life. Conversely, remote work increased well-being in all domains, with larger increases in satisfaction with life and work. Hence, the findings partially support hypothesis 2, which argues that resources in the work context decreased the negative effects of the pandemic on SWB.

Figure 1: Relationship between work-characteristics and for three domains of satisfaction (linear regression, full models)



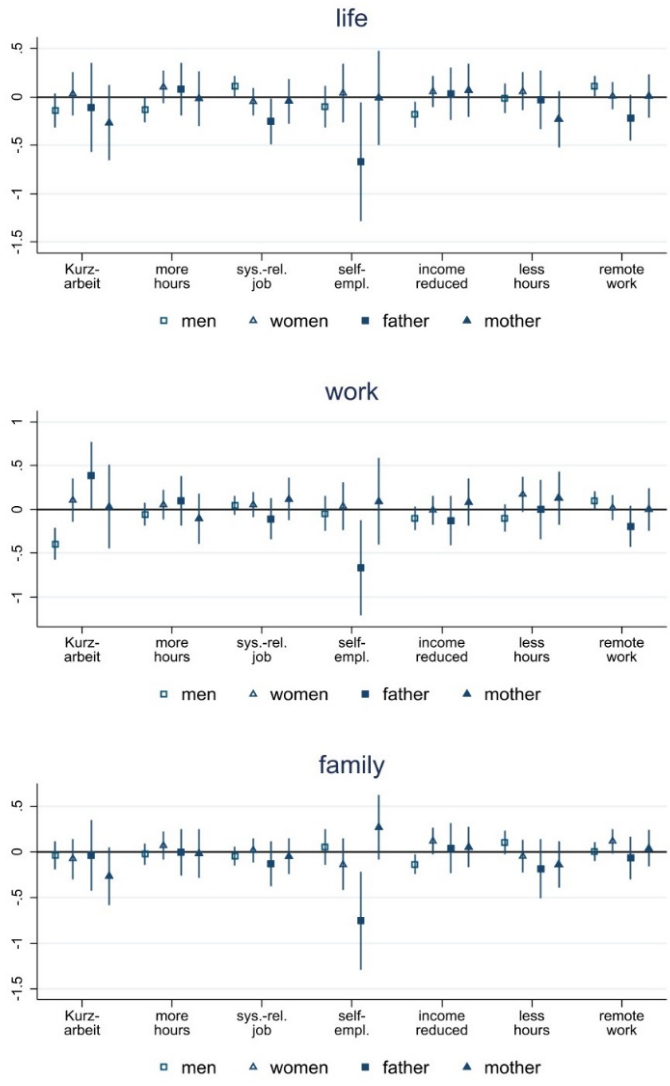
Note: 95% confidence intervals.
Source: NEPS SC6+SC5, own calculation.

Re-estimating our models with interaction effects between gender and all working conditions revealed ambiguous results for heterogeneous associations. Figure 2 displays the effects of the working conditions on respondents' domain-specific satisfaction separately for men and women as well as for fathers and mothers with children under 14 years of age.

For most potential stressors, the results did not suggest substantial group differences in the link between working conditions and altered SWB. Although short-time work was associated with lower SWB in most respondents in all three domains, men with children under 14 and short-time work reported slightly higher work satisfaction. Conversely, for men without young children, short-time work reduced life satisfaction particularly strongly. Among parents, short-time work was also associated with lower levels of life and family satisfaction but mostly for mothers. Similarly, working more hours decreased life satisfaction for men without young children compared to mostly positive but small associations for the other groups. The surprisingly positive effects of working in a system-relevant occupation from the full models were confirmed only for men's life satisfaction. For all other groups, a system-relevant occupation was

associated with lower life satisfaction, with particularly pronounced negative effects for fathers. For work and family satisfaction, no heterogeneous associations were found with respect to such occupational differences. Considering self-employment, fathers again showed the most pronounced changes towards reduced satisfaction on all three dimensions. Finally, a reduced household income was mostly negatively linked to the satisfaction of men, particularly those without children.

Figure 2: Interaction effects between work-characteristics and gender for three domains of satisfaction (linear regression, full models)



Note: 95% confidence intervals. Full models include pre-corona satisfaction, age, age², education, migration background, pre-crises employment, pre-crises log-household income, single household, number household members, East Germany.
Source: NEPS SC6+SC5, own calculation.

Regarding potential resources, working fewer hours was negatively associated with parental satisfaction with life and family compared to the mostly positive associations for men and women without young children. Similarly, remote work was mostly positively associated with men and women without children, whereas parents with children under 14 reported lower satisfaction levels, with more pronounced differences for fathers.

Overall, the interaction effects indicated small and mostly insignificant gender differences in the relationship between working conditions and group-specific changes in SWB. Therefore, the findings provide only limited support for hypothesis 3, which argues that pandemic-related differences in working conditions should explain large parts of the differences in SWB between women and men.

Table 3: Oaxaca-Blinder Twofold Decomposition Results for Predicted Gender Differences in Satisfaction

	Satisfaction		
	Life	Work	Family
	M1	M2	M3
Differential			
Men	7.27***	6.99***	7.49***
	(0.04)	(0.05)	(0.05)
Women	7.15***	6.91***	7.57***
	(0.03)	(0.04)	(0.04)
Difference	0.13*	0.08	-0.07
	(0.05)	(0.06)	(0.06)
Decomposition			
Explained	0.00	0.06	0.06
	(0.04)	(0.04)	(0.04)
Unexplained	0.13*	0.02	-0.14*
	(0.06)	(0.07)	(0.07)
Decomposition in percent			
Explained	2.47	77.89	-86.55
	(28.74)	(75.00)	(98.70)
Unexplained	97.53***	22.11	186.55
	(28.74)	(75.00)	(98.70)
Observations	3871	3822	3870

Note: For family satisfaction the negative contribution of the unexplained part results from the reversed but statistically insignificant gender difference. The sum of both decomposition parts need to equal the estimated gap, hence the negative value for the unexplained part together with the large explained part result in the large relative decomposition parts exceeding 100 percent.

Standard errors in parentheses. $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: NEPS SC5 + SC6, own calculation.

4.3 Decomposing Gender Differences in Life Satisfaction

Table 3 presents the results for the counterfactual KOB twofold decompositions of the gender differences in life satisfaction (see Table A8 in the Online Appendix for detailed decomposition results). The mean differences confirmed the multivariate OLS findings presented above, with significantly lower life satisfaction for women. The results are reported from the perspective of women, and hence, the explained part illustrates what women's life satisfaction would be if they had the same characteristics as men. The unexplained part attributes the remaining disparities to the differences in how the formation of life satisfaction is linked to certain observed and unobserved characteristics. In other words, this part illustrates how women's satisfaction would be altered if their satisfaction were linked to characteristics in the way that satisfaction is linked to these characteristics among men. Given only small and non-significant gender differences in satisfaction with work and family, results of the decomposition are only presented but not further discussed.

Surprisingly, the decomposition revealed that women would not have had substantially higher life satisfaction if they had the same distribution of characteristics as men (explained part). In fact, the compositional differences in the characteristics explained only a very small share of the observed difference in life satisfaction (explained part in percent). Instead, gender gaps in life satisfaction seemed to result from a gender-specific formation process (unexplained part in percent) based on similar observed and unobserved characteristics.

4.4 Robustness Checks

We conducted several robustness checks that reinforced our findings. First, we compared domain-specific satisfaction in spring 2020 with satisfaction in all previous NEPS-waves by estimating fixed-effects regressions that by definition account for all constant observed and unobserved characteristics. The results confirmed decreased satisfaction for all domains, with a particularly pronounced decline in mothers' life satisfaction (see Table A9-Table A10 and Figure A3 in the Online Appendix).

Second, we tested the additional relevance of respondents' occupation based on the 1-digit level of the German Classification of Occupations (KldB 2010). Unfortunately, this information was only available for a smaller number of observations. The results confirmed the patterns presented above, with significantly lower satisfaction levels for women with and without young children, and therefore show that the observed working conditions already account for most of the important differences between occupations related to satisfaction. Nevertheless, using a smaller sample also provided tentative evidence for significantly reduced work satisfaction for women without young children.

Third, we re-estimated all models with additional control variables, including dummy variables for working in a sector that was particularly affected by the COVID-19 pandemic, such as the health, sales, hotels and restaurants, or education and teaching sector (based on KldB 2010 3-digit level, results not presented). Additionally, we tested whether accounting for a fixed-term contract or using different measures of income altered our results. However, our findings were robust to all sensitivity checks.

Fourth, we re-estimated all models after excluding respondents older than 50 to ensure that the chosen reference categories of respondents without children under 14 years of age did not drive the results. In this way, we excluded the potentially very heterogeneous group including both respondents who will most likely never have children and parents with older children who no longer live in the parental household. Although the results for the reduced sample (N=2,770) no longer showed statistically significant gender differences for life satisfaction, the effect sizes remained substantial and thus continue to indicate important gender gaps in SWB.

Fifth, we included the number of children under 14 years old in the household in all models (see Table A11 in the Online Appendix), which was negatively associated with satisfaction in all domains. As expected, the additional control variable explained the lower life satisfaction of mothers. However, the lower life satisfaction for women without a child under 14 years old remained statistically significant. Additionally, these models revealed a higher life satisfaction for fathers that was substantial in magnitude (0.18+) and statistically significant at the 1-percent level. Similar effects were found when controlling for the very small number of children under 6 years old.

Sixth, as the COVID-19 pandemic is also a critical challenge to one's health, we examined the role of respondents' satisfaction with health as an independent variable in our models and as a dependent varia-

ble in separate models. Although satisfaction with health was positively associated with the three different dimensions of SWB, it did not explain the remaining gender differences in life satisfaction. Similarly, we found no gender differences in respondent satisfaction with health as a dependent variable. In addition, controlling for a coronavirus infection or mandated quarantine of the respondents or their relatives did not change the results presented above.

Previous research has highlighted gender differences in pandemic-related concerns (Bünning et al. 2020; Czymara et al. 2021). Hence, we tested the relevance of negative expectations about one's own situation, such as a future loss of income, job loss, money problems, health constraints, or further restrictions on civil rights and liberties. In general, women were more likely to expect to lose their job or income than men. Conversely, men were more likely to expect a reduction in their living standards, increased health problems for themselves and relatives and an expected economic hardship for close friends or relatives. However, these gender differences were mostly significant for the larger sample of respondents without young children. Including a mean index of negative expectations about one's own situation showed small but significantly negative associations with satisfaction for all three dimensions but did not change our results (see Table A12 in the Online Appendix). Similarly, we examined whether gender differences in satisfaction were related to more general concerns about the educational system, the healthcare system, the labour market, the economy and social inequality. Descriptive comparisons revealed that in spring 2020, women were more concerned about these societal issues than men. Including a mean index on these concerns completely explained the lower life satisfaction of women without young children, while other independent variables remained unaltered (see Table A13 in the Online Appendix). However, for mothers with young children, the effects on decreased life satisfaction remained substantial and significant at the 10-percent level. Hence, these results illustrate that gender differences in SWB are partly related to stronger societal concerns among women.

As the first months of the pandemic were accompanied by enforced physical distancing in Germany, we investigated the role of altered social life. Respondents were asked how often they had missed the company of others or felt left out during the first months of the pandemic. Both women with and without children felt significantly lonelier than men. When including an additive sum score of loneliness in our models, the gender differences became statistically insignificant but remained substantial in size for mothers with young children (see Table A14 in the Online Appendix). The findings therefore suggest important gender differences in altered social life driving some of the observed gender differences in life satisfaction.

5 Discussion and Conclusion

Our study provides evidence on gender differences in altered SWB in the context of the first months of the COVID-19 pandemic in Germany. By comparing satisfaction in spring 2020 with pre-crisis satisfaction based on panel data, our results show a decline in satisfaction with life, work, and family for all respondents. However, comparing the changes for men and women revealed larger declines in life satisfaction for women with and without children under 14 years old compared to men. Moreover, women's life satisfaction declined, particularly when young children were present. Conversely, we found no substantial gender differences in altered satisfaction for the work and family domains when accounting for other

important aspects of the household. Hence, from a theoretical perspective, the findings provide evidence for heterogeneous crisis effects on SWB that are likely to be driven by group-specific roles and contexts.

Contrary to our expectations, gender differences in life satisfaction could not be explained by observed differences in working conditions. Moreover, the group-specific differences in the relationship between working characteristics and altered satisfaction were rather ambiguous and, if at all, provided only tentative evidence for somewhat stronger negative associations for men and particularly fathers. However, the rich set of working conditions could not explain the stronger decline in women's SWB. Hence, our results align with previous studies, according to which financial and working conditions have little impact on the observed gender gap in SWB (Adams-Prassl et al. 2020a; Etheridge/Spantig 2020). Decomposition analysis confirmed the comparatively small role of observed characteristics in explaining the satisfaction gaps and indicated gender differences in the formation of satisfaction. Overall, our results provide no evidence that gender differences in satisfaction occurred exclusively due to persistent or even enforced labour market inequalities during the first months of the pandemic in Germany.

Nevertheless, our findings suggest important gender differences in social life and pandemic-related concerns. Specifically, the results show that at the beginning of the pandemic, women were more concerned about the multiple threats of the crisis and, in addition, felt lonelier than men. These gender differences partly drive the observed gap in life satisfaction. Hence, our results expand previous research that was unable to fully explain gender differences in altered SWB (Adams-Prassl et al. 2020a) and thereby provide further evidence that suggests a high relevance of social factors for gender differences in altered SWB during the crisis (Etheridge/Spantig 2020).

Overall, our results provide additional evidence on gender disparities in SWB during the COVID-19 crisis found in international studies (Etheridge/Spantig 2020 and Zhou et al. 2015 for the UK; Adams-Prassl et al. 2020a for the US) and studies focusing particularly on Germany (Bünning et al. 2020; Liebig 2020). Moreover, the general satisfaction level is comparable to other studies based on data from spring 2020, with life satisfaction ranging from 6.5 to 7.5 for women and slightly higher levels of 6.9 to 7.5 for men (Fuchs-Schündeln/Stephan 2020). Additionally, our heterogeneous results with respect to gender, parenthood and investigated items illustrate the complex association between domain-specific satisfaction and various impact factors, which often depend on the context and investigated subgroups (Nomaguchi/Milkie 2020). The item-specific findings therefore align with research that highlights the relevance of distinguishing different dimensions of satisfaction (Diener et al. 1999). More broadly, our findings also confirm well-studied gendered roles and identities. While men seem to be more affected by involuntary reductions in working hours and loss of income, especially in self-employment, women's satisfaction seems to have particularly decreased in connection with caregiving responsibilities and reduced social life. Finding a particularly pronounced and unexplained decline in mothers' life satisfaction therefore also confirms the most recent studies suggesting a strongly gendered distribution of family work during the pandemic (e.g., Zoch et al. 2020). Given that we observe significantly lower life satisfaction among mothers already in the first months of the pandemic and in the face of further increased uncertainties and long-term burdens while resources, such as government wage replacement benefits, decreased, it is reasonable to assume that satisfaction may have declined even further over the following months of the pandemic.

Although our result of women's lower SWB aligns with other studies on the COVID-19 pandemic, it likely represents a lower bound when comparing altered satisfaction across counties. Compared to contexts that were hardest hit by the pandemic and related labour market changes, such as Spain, Italy, France or

the US, infection rates and unemployment rates remained low in Germany. Instead, enormous economic aid and special labour market instruments supported those negatively affected by the lockdown or a decline in demand. These favourable conditions could explain the low level of concern about one's individual situation in our data measured at the beginning of the pandemic. Germany thus occupies a very comfortable position in an international comparison, so our results most likely underestimate the immediate negative impact of the pandemic on overall satisfaction as well as associated gender differences for other contexts.

Overall, the study highlights a particularly pronounced decrease in life satisfaction among mothers of young children. However, given the small number of respondents with young children in the household, the results should be interpreted with caution. Moreover, although we exploit variation in panel data, some information was only measured at one point in time, which did not allow us to estimate panel analysis, such as fixed-effects regression or difference-in-differences models with time-varying controls. Hence, the risk of biased estimates remains due to unobserved characteristics that may correlate with some of the observables. However, by accounting for pre-pandemic satisfaction and a large number of control variables, our results provide a more robust picture than previous cross-sectional findings on pandemic-related differences in SWB.

Despite these limitations, our findings align with previous studies highlighting the importance of increased gender inequalities during the first months of the COVID-19 pandemic. However, given the early observation period in spring 2020, future research should focus on the medium-term consequences of the pandemic. Since the crisis has penalised certain groups very differently in recent months, it remains to be seen how the satisfaction of women and men has developed. Future work should therefore also concentrate on various possible direct and indirect mechanisms that lead to inequalities in well-being, particularly for more vulnerable groups such as single mothers or those with lower educational attainment.

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Appendix

Table A1: Correlation Matrix of Dependent Variables

Satisfaction	life	work	family
before pandemic			
life	1.00		
work	0.49*	1.00	
family	0.54*	0.24*	1.00
in pandemic			
life	1.00		
work	0.53*	1.00	
family	0.50*	0.32*	1.00

Note: * p < 0.05, ** p < 0.01, *** p < 0.001

Source: NEPS SC6+SC5, weighted.

Table A2: Description of independent variables (unweighted)

	respondents without under-14-year-old				respondents with under-14-year-old			
	men		women		men		women	
	mean	sd	mean	sd	mean	sd	mean	sd
age	41.79	12.92	**38.55**	12.28	38.85	8.26	**37.81**	7.34
education								
no college degree (*ref.*)	0.17	0.37	**0.14**	0.35	0.11	0.32	0.13	0.33
college degree	0.17	0.38	0.15	0.36	0.20	0.40	0.23	0.42
university degree	0.66	0.47	**0.71**	0.46	0.69	0.46	0.65	0.48
migration background (d)	0.12	0.33	0.12	0.33	0.14	0.35	0.11	0.32
pre-corona work								
part-time (d)	0.11	0.32	**0.30**	0.46	0.12	0.32	**0.61**	0.49
missing (d)	0.05	0.22	**0.07**	0.26	0.04	0.20	**0.11**	0.31
pre-corona income	4170.50	3279.65	**3823.42**	2570.10	4739.92	3135.25	**4186.76**	1805.33
single household (d)	0.28	0.45	0.29	0.45	0.00	0.00	0.00	0.00
number of household members	1.08	1.22	**0.94**	0.85	2.78	1.14	**2.57**	0.84
East Germany (d)	0.18	0.39	0.18	0.38	0.18	0.38	**0.28**	0.45
Stressors & constraints								
short-time work (d)	0.11	0.31	0.10	0.30	0.09	0.29	0.11	0.31
working hours +	0.18	0.39	0.20	0.40	0.17	0.38	0.20	0.40
system-relevant occupation (d)	0.30	0.46	**0.40**	0.49	0.32	0.47	**0.50**	0.50
self-employed (d)	0.08	0.27	**0.05**	0.23	0.07	0.25	0.07	0.26
income reduced (d)	0.22	0.41	0.21	0.41	0.23	0.42	0.24	0.43
Ressources								
working hours -	0.12	0.33	**0.17**	0.38	0.13	0.33	**0.20**	0.40
remote work (d)	0.61	0.49	**0.64**	0.48	0.65	0.48	0.60	0.49
remote work missing	0.05	0.22	0.06	0.23	0.04	0.19	**0.10**	0.30
Observations	1336	1336	1844	1844	333	333	358	358

Note: Reference categories indicated with *ref.* Dummy variables indicated with *d.* Bold figures indicate significant mean differences between fe(male) respondents with and without children under-14-years of age (t-test, p=0.05).

Source: NEPS SC6+SC5, unweighted.

Table A3: Description of independent variables (weighted)

	respondents without under-14-year-old				respondents with under-14-year-old			
	men		women		men		women	
	mean	sd	mean	sd	mean	sd	mean	sd
age	37.93	11.00	39.03	11.97	36.51	8.26	37.81	7.34
education								
no college degree (ref.)	0.27	0.44	0.26	0.44	0.27	0.44	0.13	0.33
college degree	0.16	0.36	0.16	0.37	0.19	0.40	0.23	0.42
university degree	0.57	0.49	0.58	0.49	0.54	0.50	0.65	0.48
migration background (d)	0.17	0.38	0.20	0.40	0.24	0.43	0.11	0.32
pre-corona work								
part-time (d)	0.11	0.31	0.31	0.46	0.19	0.39	0.61	0.49
missing (d)	0.12	0.32	0.18	0.39	0.13	0.34	0.11	0.31
pre-corona income	3638.86	2897.39	3743.16	2407.34	4569.91	2110.16	4186.76	1805.33
single household (d)	0.30	0.46	0.33	0.47	0.00	0.00	0.00	0.00
number of household members	1.02	1.50	0.91	0.89	2.78	1.14	2.57	0.84
East Germany (d)	0.18	0.38	0.19	0.39	0.15	0.36	0.28	0.45
Stressors & constraints								
short-time work (d)	0.15	0.36	0.12	0.32	0.08	0.27	0.11	0.31
working hours + (d)	0.14	0.35	0.21	0.41	0.21	0.41	0.20	0.40
system-relevant occupation (d)	0.31	0.46	0.33	0.47	0.31	0.46	0.50	0.50
self-employed (d)	0.05	0.22	0.06	0.23	0.04	0.21	0.07	0.26
income reduced (d)	0.18	0.38	0.17	0.38	0.27	0.44	0.24	0.43
Ressources								
working hours – (d)	0.13	0.33	0.14	0.34	0.10	0.31	0.20	0.40
remote work (d)	0.52	0.50	0.57	0.50	0.61	0.49	0.60	0.49
remote work missing	0.05	0.21	0.07	0.25	0.03	0.16	0.10	0.30
Observations	1336	1336	1843	1843	333	333	358	358

Note: Reference categories indicated with *ref.* Dummy variables indicated with *d.*

Source: NEPS SC6+SC5, weighted.

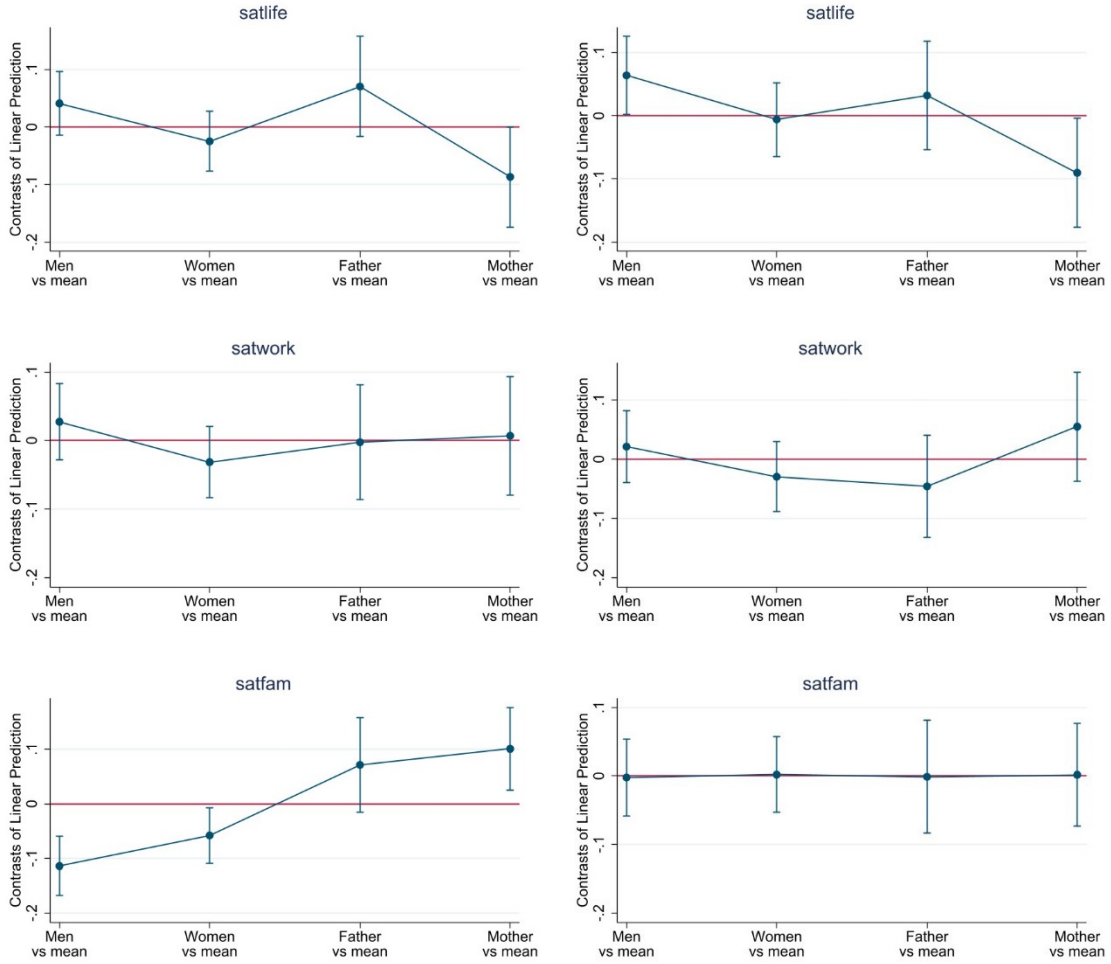
Table A4: Information about coding of individual-level variables

Variable name and coding	Construction from original NEPS variables
Dependent variables	
Satisfaction	How satisfied are you currently …
Life	… with your life in general? (measured on 11-point Likert scale, ranging 0 completely dissatisfied to 10 completely satisfied)
Work	… with your work? (measured on 11-point Likert scale, ranging 0 completely dissatisfied to 10 completely satisfied)
Family	… with your family life? (measured on 11-point Likert scale, ranging 0 completely dissatisfied to 10 completely satisfied)
Independent variables	
Group indicator	Based on sex of the respondent and information on persons under the age of 14 in the household (measured in COVID-19 web survey).
1: men *(ref.)*	Male, no under-14-year-old in household
2: woman	Female, no under-14-year-old in household
3: men with under-14-year-old	Male with under-14-year-old in household
4: woman with under-14-year-old	Female with under-14-year-old in household
Age	Age in years at month of interview based on date of birth (measured in regular NEPS waves)
Education level	Based on ISCED (measured in regular NEPS waves)
1: no college degree *(ref.)*	Highest attained education is ISCED 0 (pre-primary education), ISCED 1 (primary education or first stage of basic education) or ISCED 2 (lower secondary or second state of basic education)
2: college degree	Highest attained education is ISCED 3 ((upper) secondary education) or ISCED 4 (post-secondary non-tertiary education)
3: university degree	Highest attained education is ISCED 5 (first stage of tertiary education) or ISCED 6 (second stage of tertiary education)
Migration Background (d) 0: no 1: yes	Based on information on the country of birth of the respondent and of her or his parents and grandparents (measured in regular NEPS waves, https://www.neps-data.de/Portals/0/Survey%20Papers/SP_IV.pdf): Migration background indicates a foreign country of birth for the first (respondent) generation up to the 2.75th generation, i.e. one parent was born abroad and the other, as well as her or his own parents (or the grandparents of the target person), was born in Germany (2.75th generation).
Pre-Corona Work part-time (d) 0: no 1: yes *Pre-Corona Work* missing (d) 0: no 1: yes	Individual worked part-time, i.e. below 35 hours/week (measured in last NEPS wave) No information on working hours available.
Pre-Corona income	Based on monthly household income in € after deduction of taxes and social security contributions (measured in last NEPS wave)
Single household (d) 0: no 1: yes	Individual reports to live alone. (measured in the COVID-19 web survey)
Number of household members	Number of persons who are currently living with the respondent in the same household. (measured in the COVID-19 web survey)
East Germany (d) 0: no 1: yes	 Individual lives in West Germany (measured in last NEPS wave) Individual lives in East Germany (measured in last NEPS wave)
Stressors and Constraints	All stressors and constraints were measured in the COVID-19 web survey. Questions were usually introduced like: “During the first few months of the corona crisis [i: By this we mean the first period of the corona crisis with the school closures and exit restrictions, i.e. from March 2020 until the first loosening of the restrictions”, which of the following things applied mainly to you?
Short-time work *(d)* 0: no 1: yes	Respondent was … 0: … not on short-time work. 1: … on short-time work, i.e. working less hours or not at all.

Variable name and coding	Construction from original NEPS variables
Working hours + (d) 0: no 1: yes	Respondent worked … 0: … just as much / less than usual or not at. 1: … more than usual.
System-relevant occupation (d) 0: no 1: yes	"Was your occupation one of the so-called systemically important professions?" 0: No systematically important profession 1: Systematically important profession
Self-employed (d) 0: no 1: yes	Before the start of the corona crisis, respondent was … 0: … gainful employed. 1: … self-employed.
Income reduction (d) 0: income not reduced 1: Income reduced	Comparison between pre-corona and corona net household income. Reduction of pre-crisis net household income in € … 0: … below 10, stable or increased income. 1: … of at least 10 per cent or more.
Ressources	
Working hours – (d) 0: no 1: yes	Respondent worked 0: more or just as much as usual. 1: less than usual due to: - release from work duties with continued wage payment - release from work duties without continued wage payment - instructed reduction of vacation/overtime - sick leave - dismissal
Remote work (d) 0: no remote work 1: remote work	Based on the question "Where did you mainly work in the first period of the corona crisis?" (measured in the COVID-19 web survey) 0: answers (1) still at my place of work; (5) at another place 1: answers: (2) due to the corona crisis from home (3) still from home (4) about equally often at place of work and from home
Remote work missing 0: no 1: yes	No information on workplace available.

Note: Coding scheme of used variables from NEPS SC6+SC5 data. Reference categories indicated with *ref.* Dummy variables indicated with *d.*

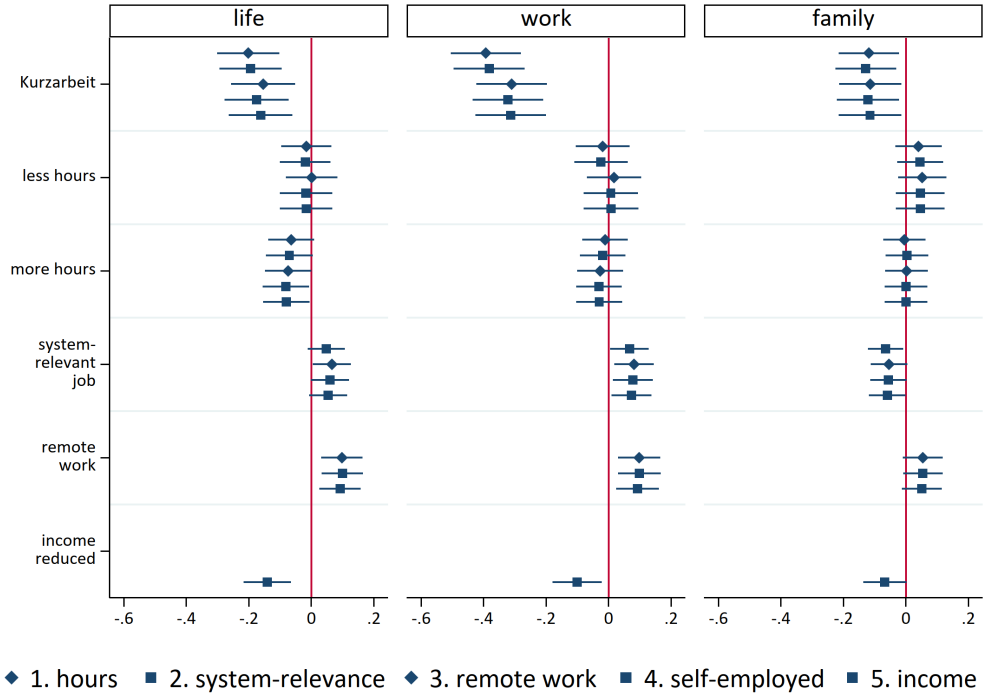
Figure A1: Contrast of adjusted means for each group compared with mean satisfaction along with the 95% confidence interval (linear regressions models with no controls (left panel) and full-models (right panel))



Note: Full models include pre-corona satisfaction, age, age², education, migration background, pre-crises employment, pre-crises log-household income, single household, number household members, East Germany.

Source: NEPS SC6+SC5, own calculation.

Figure A2: Relationship between work-characteristics and satisfaction for three domains in stepwise models (linear regression)



Note: Full models include pre-corona satisfaction, age, age^2, education, migration background, pre-crises employment, pre-crises log-household income, single household, number household members, East Germany.

Source: NEPS SC6+SC5, own calculation.

Table A5: Stepwise linear regressions models for satisfaction with life (OLS regression)

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
female	-0.06	(0.04)	-0.03	(0.03)	-0.07*	(0.03)	-0.06*	(0.03)	-0.07*	(0.03)	-0.07*	(0.03)	-0.07*	(0.03)	-0.07*	(0.03)
father	0.05	(0.06)	-0.04	(0.06)	-0.02	(0.06)	-0.03	(0.06)	-0.03	(0.06)	-0.04	(0.06)	-0.04	(0.06)	-0.03	(0.06)
mother	-0.12*	(0.06)	-0.19***	(0.05)	-0.15*	(0.07)	-0.16*	(0.07)	-0.16*	(0.07)	-0.16*	(0.07)	-0.16*	(0.07)	-0.15*	(0.07)
pre-corona satisfaction			0.37***	(0.02)	0.35***	(0.02)	0.35***	(0.02)	0.35***	(0.02)	0.35***	(0.02)	0.35***	(0.02)	0.35***	(0.02)
age					-0.09***	(0.02)	-0.09***	(0.02)	-0.09***	(0.02)	-0.09***	(0.02)	-0.08***	(0.02)	-0.08***	(0.02)
age²					0.00***	(0.00)	0.00***	(0.00)	0.00***	(0.00)	0.00***	(0.00)	0.00***	(0.00)	0.00***	(0.00)
education: college degree					0.07	(0.06)	0.06	(0.06)	0.06	(0.06)	0.05	(0.06)	0.06	(0.06)	0.05	(0.06)
education: university degree					0.02	(0.06)	0.01	(0.06)	0.01	(0.06)	-0.02	(0.06)	-0.02	(0.06)	-0.02	(0.06)
migration background					-0.00	(0.04)	0.01	(0.04)	0.01	(0.04)	0.01	(0.04)	0.01	(0.04)	0.02	(0.04)
pre-corona work: part-time					-0.05	(0.04)	-0.04	(0.04)	-0.04	(0.04)	-0.04	(0.04)	-0.04	(0.04)	-0.02	(0.04)
pre-corona work: missing					-0.08	(0.06)	-0.09	(0.06)	-0.09	(0.06)	-0.09	(0.06)	-0.09	(0.06)	-0.09	(0.06)
pre-corona income					0.10***	(0.03)	0.10***	(0.03)	0.10***	(0.03)	0.10**	(0.03)	0.10**	(0.03)	0.13***	(0.03)
single household					-0.09+	(0.05)	-0.08+	(0.05)	-0.08+	(0.05)	-0.08+	(0.05)	-0.08+	(0.05)	-0.06	(0.05)
number other household members					-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)
East Germany					-0.04	(0.04)	-0.04	(0.04)	-0.05	(0.04)	-0.04	(0.04)	-0.03	(0.04)	-0.03	(0.04)
short-time work							-0.20***	(0.05)	-0.19***	(0.05)	-0.15**	(0.05)	-0.18***	(0.05)	-0.16**	(0.05)
working hours -							-0.02	(0.04)	-0.02	(0.04)	0.00	(0.04)	-0.02	(0.04)	-0.02	(0.04)
working hours +							-0.06+	(0.04)	-0.07+	(0.04)	-0.07+	(0.04)	-0.08*	(0.04)	-0.08*	(0.04)
system-relevant occupation									0.05	(0.03)	0.07*	(0.03)	0.06+	(0.03)	0.05+	(0.03)
remote work											0.10**	(0.03)	0.10**	(0.03)	0.09**	(0.03)
remote work missing											-0.15+	(0.08)	-0.13	(0.08)	-0.12	(0.08)
self-employed													-0.17*	(0.07)	-0.14*	(0.07)
income reduced															-0.14***	(0.04)
_cons	0.04	(0.03)	-2.92***	(0.13)	-1.53***	(0.41)	-1.49***	(0.41)	-1.50***	(0.41)	-1.49***	(0.41)	-1.54***	(0.41)	-1.79***	(0.42)
N	3871		3871		3871		3871		3871		3871		3871		3871	
r2_a	0.00		0.16		0.20		0.20		0.20		0.20		0.20		0.21	
p	0.06		0.00		0.00		0.00		0.00		0.00		0.00		0.00	

Note: Standard errors in parentheses. $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: NEPS SC5 + SC6. Note: Full models include all controls.

Table A6: Stepwise linear regressions models for satisfaction with work (OLS regression)

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
female	-0.05	(0.04)	-0.03	(0.03)	-0.04	(0.03)	-0.04	(0.03)	-0.05	(0.03)	-0.05	(0.03)	-0.05	(0.03)	-0.05	(0.03)
father	-0.02	(0.06)	-0.06	(0.06)	-0.05	(0.06)	-0.06	(0.06)	-0.06	(0.06)	-0.07	(0.06)	-0.07	(0.06)	-0.07	(0.06)
mother	0.02	(0.06)	0.01	(0.06)	0.04	(0.07)	0.03	(0.07)	0.02	(0.07)	0.03	(0.07)	0.03	(0.07)	0.03	(0.07)
pre-corona satisfaction			0.24***	(0.01)	0.23***	(0.01)	0.23***	(0.01)	0.23***	(0.01)	0.23***	(0.01)	0.23***	(0.01)	0.23***	(0.01)
age					-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)
age^2					0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
education: college degree					-0.03	(0.06)	-0.05	(0.06)	-0.05	(0.06)	-0.07	(0.06)	-0.06	(0.06)	-0.07	(0.06)
education: university degree					-0.04	(0.05)	-0.07	(0.05)	-0.06	(0.05)	-0.10+	(0.05)	-0.10+	(0.05)	-0.10+	(0.05)
migration background					0.01	(0.05)	0.02	(0.05)	0.02	(0.05)	0.03	(0.05)	0.03	(0.05)	0.03	(0.05)
pre-corona work: part-time					0.00	(0.04)	0.01	(0.04)	0.01	(0.04)	0.02	(0.04)	0.02	(0.04)	0.03	(0.04)
pre-corona work: missing					-0.04	(0.08)	-0.04	(0.07)	-0.05	(0.07)	-0.05	(0.07)	-0.05	(0.07)	-0.05	(0.07)
pre-corona income					0.12***	(0.03)	0.11***	(0.03)	0.11***	(0.03)	0.10**	(0.03)	0.10**	(0.03)	0.13***	(0.03)
single household					-0.01	(0.05)	-0.00	(0.05)	-0.00	(0.05)	-0.00	(0.05)	0.00	(0.05)	0.02	(0.05)
number other household members					-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)
East Germany					-0.04	(0.04)	-0.05	(0.04)	-0.05	(0.04)	-0.04	(0.04)	-0.04	(0.04)	-0.04	(0.04)
short-time work							-0.39***	(0.06)	-0.38***	(0.06)	-0.31***	(0.06)	-0.32***	(0.06)	-0.31***	(0.06)
working hours -							-0.02	(0.04)	-0.02	(0.04)	0.02	(0.04)	0.01	(0.04)	0.01	(0.04)
working hours +							-0.01	(0.04)	-0.02	(0.04)	-0.03	(0.04)	-0.03	(0.04)	-0.03	(0.04)
system-relevant occupation									0.07*	(0.03)	0.08*	(0.03)	0.08*	(0.03)	0.07*	(0.03)
remote work											0.10**	(0.03)	0.10**	(0.03)	0.09**	(0.03)
remote work missing											-0.35***	(0.09)	-0.34***	(0.09)	-0.33***	(0.09)
self-employed													-0.09	(0.07)	-0.08	(0.07)
income reduced															-0.10*	(0.04)
_cons	0.03	(0.03)	-1.73***	(0.10)	-2.11***	(0.42)	-2.02***	(0.42)	-2.03***	(0.42)	-1.98***	(0.42)	-2.00***	(0.42)	-2.20***	(0.43)
N	3756		3756		3756		3756		3756		3756		3756		3756	
r2_a	-0.00		0.15		0.15		0.16		0.17		0.17		0.18		0.18	
p	0.55		0.00		0.00		0.00		0.00		0.00		0.00		0.00	

Note: Standard errors in parentheses. $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: NEPS SC5 + SC6. Note: Full models include all controls.

Table A7: Stepwise linear regressions models for satisfaction with family (OLS regression)

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
female	0.05	(0.04)	0.00	(0.03)	0.00	(0.03)	-0.00	(0.03)	0.00	(0.03)	0.00	(0.03)	0.00	(0.03)	0.00	(0.03)
father	0.21***	(0.06)	0.04	(0.05)	0.00	(0.06)	-0.00	(0.06)	0.00	(0.06)	-0.00	(0.06)	-0.00	(0.06)	0.00	(0.06)
mother	0.20***	(0.06)	0.01	(0.05)	-0.01	(0.06)	-0.01	(0.06)	0.00	(0.06)	0.00	(0.06)	0.00	(0.06)	0.00	(0.06)
pre-corona satisfaction			0.36***	(0.01)	0.34***	(0.01)	0.34***	(0.01)	0.34***	(0.01)	0.34***	(0.01)	0.34***	(0.01)	0.34***	(0.01)
age					-0.04*	(0.02)	-0.04*	(0.02)	-0.04*	(0.02)	-0.04*	(0.02)	-0.04*	(0.02)	-0.04*	(0.02)
age^2					0.00+	(0.00)	0.00+	(0.00)	0.00+	(0.00)	0.00+	(0.00)	0.00+	(0.00)	0.00+	(0.00)
education: college degree					-0.02	(0.05)	-0.03	(0.05)	-0.03	(0.05)	-0.04	(0.05)	-0.04	(0.05)	-0.04	(0.05)
education: university degree					-0.04	(0.05)	-0.05	(0.05)	-0.06	(0.05)	-0.08	(0.05)	-0.07	(0.05)	-0.08	(0.05)
migration background					0.02	(0.04)	0.03	(0.04)	0.03	(0.04)	0.03	(0.04)	0.03	(0.04)	0.03	(0.04)
pre-corona work: part-time					-0.03	(0.03)	-0.03	(0.03)	-0.03	(0.03)	-0.03	(0.03)	-0.03	(0.03)	-0.02	(0.03)
pre-corona work: missing					-0.03	(0.06)	-0.03	(0.06)	-0.02	(0.06)	-0.02	(0.06)	-0.02	(0.06)	-0.02	(0.06)
pre-corona income					0.12***	(0.03)	0.11***	(0.03)	0.11***	(0.03)	0.11***	(0.03)	0.11***	(0.03)	0.13***	(0.03)
single household					-0.21***	(0.05)	-0.21***	(0.05)	-0.21***	(0.05)	-0.21***	(0.05)	-0.21***	(0.05)	-0.20***	(0.05)
number other household members					-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.02)
East Germany					0.05	(0.04)	0.05	(0.04)	0.05	(0.04)	0.05	(0.04)	0.05	(0.04)	0.05	(0.04)
short-time work							-0.12*	(0.05)	-0.13**	(0.05)	-0.11*	(0.05)	-0.12*	(0.05)	-0.11*	(0.05)
working hours -							0.04	(0.04)	0.05	(0.04)	0.05	(0.04)	0.05	(0.04)	0.05	(0.04)
working hours +							-0.01	(0.03)	0.00	(0.03)	0.00	(0.03)	-0.00	(0.03)	0.00	(0.03)
system-relevant occupation									-0.07*	(0.03)	-0.05+	(0.03)	-0.06+	(0.03)	-0.06*	(0.03)
remote work											0.05+	(0.03)	0.05+	(0.03)	0.05	(0.03)
remote work missing											-0.04	(0.08)	-0.03	(0.07)	-0.03	(0.07)
self-employed													-0.06	(0.07)	-0.05	(0.07)
income reduced															-0.07+	(0.04)
_cons	-0.06*	(0.03)	-3.00***	(0.09)	-2.82***	(0.38)	-2.80***	(0.38)	-2.79***	(0.38)	-2.80***	(0.38)	-2.82***	(0.38)	-2.94***	(0.38)
N	3865		3865		3865		3865		3865		3865		3865		3865	
r2_a	0.00		0.30		0.31		0.31		0.31		0.31		0.31		0.31	
p	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	

Note: Standard errors in parentheses. $^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: NEPS SC5 + SC6. Note: Full models include all controls.

Table A8: Oaxaca-Blinder Twofold Decomposition Results for Predicted Gender Differences in Satisfaction – Detailed Output

	Satisfaction		
	Life	Work	Family
	M1	M2	M3
Differential			
Men	7.27***	6.99***	7.49***
	(0.04)	(0.05)	(0.05)
Women	7.15***	6.91***	7.57***
	(0.03)	(0.04)	(0.04)
Difference	0.13*	0.08	-0.07
	(0.05)	(0.06)	(0.06)
Explained	0.00	0.06	0.06
	(0.04)	(0.04)	(0.04)
Unexplained	0.13*	0.02	-0.14*
	(0.06)	(0.07)	(0.07)
explained			
age	-0.06***	-0.02	-0.05***
	(0.01)	(0.01)	(0.02)
education: no college degree	-0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)
education: college degree	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)
education: university degree	0.00	0.00	0.01
	(0.00)	(0.00)	(0.00)
migration background	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)
pre-corona work: part-time	0.04	0.05	0.04
	(0.03)	(0.03)	(0.03)
pre-corona work: missing	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)
pre-corona income	0.04***	0.03*	0.04***
	(0.01)	(0.01)	(0.01)
single household	0.01	0.00	0.02
	(0.00)	(0.00)	(0.01)
number other household members	-0.01	-0.02*	-0.00
	(0.01)	(0.01)	(0.01)
children under 14 years	-0.01	-0.01	0.00
	(0.01)	(0.01)	(0.01)
East Germany	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)
short-time work	-0.00	-0.00	-0.00
	(0.00)	(0.01)	(0.00)
working hours -	0.00	0.01	-0.00
	(0.01)	(0.01)	(0.01)
working hours +	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)
system-relevant occupation	-0.02	-0.01	0.00
	(0.01)	(0.01)	(0.01)
remote work	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)
remote work missing	0.01	0.02	0.00

	Satisfaction		
	Life	Work	Family
	M1	M2	M3
	(0.01)	(0.01)	(0.01)
self-employed	-0.01	-0.00	-0.00
	(0.00)	(0.00)	(0.00)
income reduced	-0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)
unexplained			
age	0.18	0.23	-0.34
	(0.22)	(0.26)	(0.26)
education: no college degree	0.00	-0.02	0.01
	(0.02)	(0.02)	(0.02)
education: college degree	-0.00	0.01	0.01
	(0.02)	(0.02)	(0.02)
education: university degree	0.01	0.10	-0.07
	(0.07)	(0.08)	(0.08)
migration background	-0.01	0.00	-0.05*
	(0.02)	(0.02)	(0.02)
pre-corona work: part-time	-0.06	-0.13*	-0.08
	(0.05)	(0.06)	(0.06)
pre-corona work: missing	-0.01	-0.04	-0.03
	(0.02)	(0.02)	(0.02)
pre-corona income	0.16	-1.40	-0.28
	(0.91)	(1.14)	(1.06)
single household	-0.03	-0.09*	0.06
	(0.04)	(0.05)	(0.05)
number other household members	0.06	-0.16	0.34**
	(0.09)	(0.11)	(0.12)
children under 14 years	0.00	-0.01	-0.04
	(0.03)	(0.03)	(0.03)
East Germany	-0.03	-0.03	-0.03
	(0.03)	(0.03)	(0.03)
short-time work	0.01	-0.01	0.03
	(0.02)	(0.02)	(0.02)
working hours -	-0.01	-0.07*	0.01
	(0.03)	(0.03)	(0.03)
working hours +	-0.02	-0.02	-0.03
	(0.03)	(0.03)	(0.03)
system-relevant occupation	0.02	-0.01	0.02
	(0.05)	(0.06)	(0.06)
remote work	-0.04	-0.05	-0.15
	(0.07)	(0.09)	(0.09)
remote work missing	-0.03	-0.02	-0.03
	(0.02)	(0.03)	(0.02)
self-employed	-0.01	-0.02	-0.00
	(0.01)	(0.02)	(0.02)
income reduced	-0.02	0.00	-0.02
	(0.03)	(0.04)	(0.03)
_cons	-0.04	1.77	0.54
	(0.91)	(1.11)	(1.05)
N	3871	3822	3870

Note: Standard errors in parentheses. $^{+}$ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

Source: NEPS SC5 + SC6. Note: Full models include all controls.

Robustness Checks

Table A9: Change in satisfaction for three domains across waves (Fixed-effects regressions)

	Satisfaction with life		Satisfaction with work		Satisfaction with family	
	M1		M2		M3	
	b	SE	b	SE	b	SE
2009	-0.28***	(0.04)	-0.07	(0.06)	-0.17***	(0.05)
2010	-0.42***	(0.03)	0.10+	(0.05)	-0.33***	(0.04)
2011	-0.45***	(0.03)	-0.03	(0.05)	-0.37***	(0.04)
2012	-0.48***	(0.03)	0.01	(0.05)	-0.36***	(0.03)
2013	-0.12***	(0.02)	-0.03	(0.04)	-0.05+	(0.03)
2014	-0.41***	(0.03)	-0.04	(0.04)	-0.33***	(0.03)
2015	-0.03	(0.02)	0.03	(0.03)	0.04	(0.03)
2016	-0.05*	(0.02)	0.03	(0.03)	0.06*	(0.02)
2017	-0.13***	(0.03)	0.09**	(0.04)	-0.12***	(0.03)
2018 (ref.)						
2019	-0.05*	(0.02)	0.03	(0.03)	-0.07*	(0.03)
Spring 2020	-0.70***	(0.03)	-0.47***	(0.04)	-0.71***	(0.03)
_cons	7.91***	(0.01)	7.39***	(0.02)	8.26***	(0.02)
N	36435		26732		36215	
N_g	3871		3870		3871	
r2_w	0.04		0.02		0.03	
p	0.00		0.00		0.00	

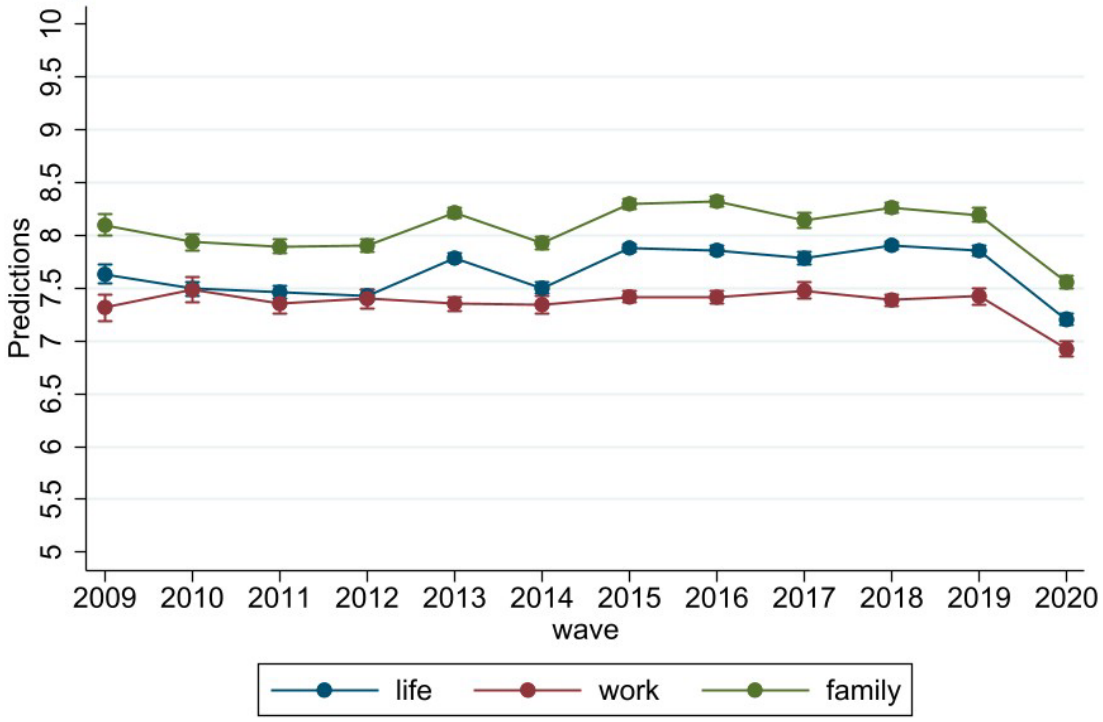
Note: Standard errors in parentheses. $^{+}$ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. No time-varying control variables.
Source: NEPS SC5 + SC6.

Table A10: Change in satisfaction for three domains between pre-corona waves and spring 2020 (Fixed-effects regressions, with interaction effect for groups)

	Satisfaction with life		Satisfaction with work		Satisfaction with family	
	M1	M2	M3	M4	M5	M6
Difference pre-crisis & spring 2020	-0.48***	-0.43***	-0.48***	-0.40***	-0.55***	-0.56***
	(0.02)	(0.04)	(0.03)	(0.05)	(0.03)	(0.05)
Interaction effect with						
Women (ref. men)		-0.01		-0.12+		0.04
		(0.05)		(0.07)		(0.06)
fathers		-0.14		-0.14		0.00
		(0.10)		(0.11)		(0.11)
mothers		-0.35***		-0.08		-0.06
		(0.10)		(0.12)		(0.10)
_cons	7.68***	7.68***	7.40***	7.40***	8.11***	8.11***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
N	36435	36435	26732	26732	36215	36215
N_g	3871	3871	3870	3870	3871	3871
r2_w	0.02	0.02	0.01	0.02	0.02	0.02
p	0.00	0.00	0.00	0.00	0.00	0.00

Note: Standard errors in parentheses. $^{+}$ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. No time-varying control variables. Difference pre-crisis & spring 2020 indicated by dummy variable (0 all previous NEPS waves – 1 spring 2020).
Source: NEPS SC5 + SC6.

Figure A3: Change in adjusted predictions of satisfaction for three domains across NEPS-waves (Fixed-effects regressions)



Note: 99% confidence intervals. Models account for all time-constant observed and unobserved differences. No time-varying control variables.

Source: NEPS SC6+SC5, own calculation.

Table A11: Relationship between children and satisfaction for three domains (OLS regression)

	Satisfaction with life		Satisfaction with work		Satisfaction with family	
	M1	M2	M1	M2	M1	M2
female (ref: male)	-0.07*	-0.07*	-0.05	-0.05	0.00	0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
father	-0.03	0.18+	-0.07	0.05	0.00	0.03
	(0.07)	(0.09)	(0.06)	(0.10)	(0.06)	(0.09)
mother	-0.16*	0.03	0.03	0.14	0.00	0.03
	(0.07)	(0.10)	(0.07)	(0.10)	(0.06)	(0.08)
short-time work	-0.16**	-0.16**	-0.31***	-0.31***	-0.12*	-0.11*
	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)
hours -	-0.02	-0.02	0.01	0.01	0.05	0.05
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
hours +	-0.08*	-0.08*	-0.03	-0.03	0.00	0.00
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)
system-relevant	0.05+	0.06+	0.07*	0.07*	-0.06*	-0.06*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work	0.09**	0.10**	0.09**	0.10**	0.05	0.05
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work missing	-0.12	-0.12	-0.33***	-0.33***	-0.03	-0.03
	(0.08)	(0.08)	(0.09)	(0.09)	(0.08)	(0.07)
self-employed	-0.15*	-0.14*	-0.08	-0.08	-0.05	-0.05
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
income reduced	-0.14***	-0.15***	-0.10*	-0.10*	-0.07+	-0.07+
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
pre-corona satisfaction	0.35***	0.35***	0.23***	0.23***	0.34***	0.34***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Number of children u14		-0.15*		-0.09		-0.02
		(0.06)		(0.06)		(0.06)
_cons	-1.80***	-1.88***	-2.21***	-2.24***	-2.95***	-2.96***
	(0.42)	(0.42)	(0.43)	(0.43)	(0.38)	(0.38)
N	3871	3871	3756	3756	3865	3865
r2_a	0.21	0.21	0.18	0.18	0.31	0.31
p	0.00	0.00	0.00	0.00	0.00	0.00

Note: Standard errors in parentheses. $^{+}$ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.

Source: NEPS SC5 + SC6.

Table A12: Relationship between individual concerns and satisfaction for three domains (OLS regression)

	Satisfaction with life		Satisfaction with work		Satisfaction with family	
	M1	M2	M1	M2	M1	M2
female (ref: male)	-0.07*	-0.05	-0.05	-0.04	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
father	-0.03	-0.01	-0.07	-0.06	0.00	0.01
	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
mother	-0.16*	-0.11+	0.03	0.07	0.00	0.02
	(0.07)	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)
short-time work	-0.16**	-0.15**	-0.31***	-0.30***	-0.12*	-0.11*
	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)
hours -	-0.02	-0.01	0.01	0.02	0.05	0.05
	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)
hours +	-0.08*	-0.07+	-0.03	-0.02	0.00	0.00
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
system-relevant	0.05+	0.06+	0.07*	0.07*	-0.06*	-0.06*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work	0.09**	0.10**	0.09**	0.10**	0.05	0.05
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work missing	-0.12	-0.12	-0.33***	-0.33***	-0.03	-0.03
	(0.08)	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)
self-employed	-0.15*	-0.15*	-0.08	-0.08	-0.05	-0.05
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
income reduced	-0.14***	-0.14***	-0.10*	-0.10*	-0.07+	-0.07+
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
pre-corona satisfaction	0.35***	0.35***	0.23***	0.23***	0.34***	0.34***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
individual concerns		-0.05***		-0.04***		-0.02*
		(0.01)		(0.01)		(0.01)
_cons	-1.80***	-1.43***	-2.21***	-1.93***	-2.95***	-2.84***
	(0.42)	(0.42)	(0.43)	(0.43)	(0.38)	(0.38)
N	3871	3871	3756	3756	3865	3865
r2_a	0.21	0.21	0.18	0.18	0.31	0.31
p	0.00	0.00	0.00	0.00	0.00	0.00

Note: Standard errors in parentheses. $^{+}$ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.

Source: NEPS SC5 + SC6.

Table A13: Relationship between societal concerns and satisfaction for three domains (OLS regression)

	Satisfaction with life		Satisfaction with work		Satisfaction with family	
	M1	M2	M1	M2	M1	M2
female (ref: male)	-0.07*	-0.07*	-0.05	-0.05	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
father	-0.03	-0.01	-0.07	-0.04	0.00	0.01
	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
mother	-0.16*	-0.13*	0.03	0.06	0.00	0.02
	(0.07)	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)
short-time work	-0.16**	-0.04	-0.31***	-0.18**	-0.12*	-0.07
	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)
hours -	-0.02	0.01	0.01	0.03	0.05	0.06
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
hours +	-0.08*	-0.07+	-0.03	-0.02	0.00	0.00
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)
system-relevant	0.05+	0.04	0.07*	0.05	-0.06*	-0.07*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work	0.09**	0.09**	0.09**	0.09**	0.05	0.05
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work missing	-0.12	-0.05	-0.33***	-0.27**	-0.03	-0.00
	(0.08)	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)
self-employed	-0.15*	-0.03	-0.08	0.05	-0.05	-0.00
	(0.07)	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)
income reduced	-0.14***	-0.10**	-0.10*	-0.06	-0.07+	-0.05
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
pre-corona satisfaction	0.35***	0.33***	0.23***	0.22***	0.34***	0.34***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
societal concerns		-0.01***		-0.01***		-0.01***
		(0.00)		(0.00)		(0.00)
_cons	-1.80***	-1.31**	-2.21***	-1.77***	-2.95***	-2.78***
	(0.42)	(0.42)	(0.43)	(0.43)	(0.38)	(0.38)
N	3871	3869	3756	3754	3865	3863
r2_a	0.21	0.23	0.18	0.21	0.31	0.32
p	0.00	0.00	0.00	0.00	0.00	0.00

Note: Standard errors in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.

Source: NEPS SC5 + SC6.

Table A14: Relationship between loneliness and satisfaction for three domains (OLS regression)

	Satisfaction with life		Satisfaction with work		Satisfaction with family	
	M1	M2	M1	M2	M1	M2
female (ref: male)	-0.07*	-0.04	-0.05	-0.03	0.00	0.02
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
father	-0.03	-0.02	-0.07	-0.06	0.00	0.01
	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
mother	-0.16*	-0.11+	0.03	0.05	0.00	0.03
	(0.07)	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)
short-time work	-0.16**	-0.15**	-0.31***	-0.30***	-0.12*	-0.11*
	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)
hours -	-0.02	0.00	0.01	0.02	0.05	0.05
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
hours +	-0.08*	-0.09*	-0.03	-0.04	0.00	-0.00
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
system-relevant	0.05+	0.07*	0.07*	0.08*	-0.06*	-0.05+
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work	0.09**	0.10**	0.09**	0.10**	0.05	0.06+
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
remote work missing	-0.12	-0.10	-0.33***	-0.32***	-0.03	-0.02
	(0.08)	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)
self-employed	-0.15*	-0.15*	-0.08	-0.08	-0.05	-0.05
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
income reduced	-0.14***	-0.13***	-0.10*	-0.09*	-0.07+	-0.06+
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
pre-corona satisfaction	0.35***	0.34***	0.23***	0.23***	0.34***	0.34***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
loneliness		-0.10***		-0.06***		-0.05***
		(0.01)		(0.01)		(0.01)
_cons	-1.80***	-0.91*	-2.21***	-1.71***	-2.95***	-2.52***
	(0.42)	(0.42)	(0.43)	(0.44)	(0.38)	(0.39)
N	3871	3871	3756	3756	3865	3865
r2_a	0.21	0.23	0.18	0.19	0.31	0.32
p	0.00	0.00	0.00	0.00	0.00	0.00

Note: Standard errors in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.

Source: NEPS SC5 + SC6.

Imprint

IAB-Discussion Paper 4|2021

Date of publication
6 April 2021

Publisher
Institute for Employment Research
of the Federal Employment Agency
Regensburger Str. 104
90478 Nürnberg Germany

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Website
www.iab.de

ISSN
2195-2663

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